

Planetary Health Report Card (Medicine): University of Aberdeen



2022-2023 Contributing Team:

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Summary of Findings

Overall	
Curriculum	
 Planetary Health topics are gradually being implemented more into the curriculum. However, th detail is quite brief and is only explored further in some Student Selected Components. Recommendations: Include more teaching on sustainability in the curriculum. Even one lecture some relevant lectures to introduce it as a theme throughout. 	
Interdisciplinary Research	В
 At the University there is research being done in different areas of planetary health and healthca sustainability with clinicians who have a focus on planetary health. However, there is no specifi for interdisciplinary planetary health research. The medical school now has a sustainability steer which was created in January 2023. The University of Aberdeen has set out its long term strateg which places Sustainability and Interdisciplinary at the centre of its research priorities. It has est Health, Nutrition and Wellbeing as one of five key Interdisciplinary Research Challenges and ap Dean (a professor from the School of Medicine, Medical Sciences and Nutrition (SMMSN)) to Recommendations: Give students more information about different research opportunities avait them to do with sustainability. 	c institute ring group gy (for 2040) atablished opointed a lead this.
Community Outreach and Advocacy	В
 The medical school has multiple societies that promote planetary health through events. Some so relate to planetary health are Students for Global Health, MedAid Society and the Sustainable N society. There is a large amount of outreach work done by the Rowett Institute. They undertake community events in the city and across Scotland and publish material to promote a better under the research they undertake and its influence on policy. Recommendations: Create more community based events and have more café med and sci even on planetary health and sustainable medicine. Also, there could be more educational material ac patients on environmental health topics. 	fedicine a lot of rstanding of nts focused
Support for Student-Led Initiatives	В
 The medical school offers students grants to support students interested in sustainability initiative research opportunities for students if the students seek out these opportunities. Recommendations: It would be good if there could be more information for students on how to sustainable QI and a webpage to centralise information on planetary health. Also, the University facilitate connections between research mentors and students who have interest in Planetary Heat 	o do a / could help
<u>Campus Sustainability</u>	B+
 The main medical school campus building has achieved the BREEAM 'Excellent' rating and dra and electricity from Combined Heat and Power Station operated by the NHS. Aberdeen Universe committed steering group that focuses on campus sustainability and is working towards net zero by 2040. Recommendations: Improve transport links with more frequent buses and buses to the other how by the medical schools 	sity has a emissions

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 analyzing 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, 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 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 centered on environmental health impacts 5) medical school campus sustainability.

Definitions & Other Considerations

Definitions:

- Planetary Health: is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.
- Sustainable Healthcare: As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 - 1. Describe how the environment and human health interact at different levels.

2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.

3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

• Medical School vs. Institution: When "medical school" is specified in the report card, this only refers to curriculum and resources offered by the School 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. 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 providers 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 mold 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.
- 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.
- **Clerkship:** 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 or placements.

Other considerations:

• If there are more than one "tracks" at your medical school 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).

Added to our resources last year, the Planetary Health Report Card <u>Literature</u> <u>Review by Metric</u> collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

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 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. 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?

3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
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.
The University of Aberdeen offers a Medical Humanities Student Selected Component in third year on Sustainable Medicine. This is currently only available to three students per year and is undertaken in Inverness.	

Curriculum: Health Effects of Climate Change

2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?	
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	This topic was not covered.
These topics are addressed in first year in the environmental influences on health lecture and in a	

These topics are addressed in first year in the environmental influences on health lecture and in a cardiovascular lecture. It is also addressed in the infection block in second year. Also, a case has been developed for the Case based learning (CBL) section on MyMbChb looking at health considerations of extreme heat but it has not been uploaded yet.

3. Does your <u>medical school</u> 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 explored in depth of the core called and

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

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

0 This topic was **not** covered.

The University of Aberdeen briefly covers this topic in the Environmental Influences on Health lecture on Natural disasters and their impact on healthcare in first year.

4. Does your <u>medical school</u> 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.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

This topic was briefly addressed in the zoonosis lecture in the year 2 infection block. It was also covered in the global health medical humanities Student Selected Component in third year.

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

- 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 This topic was **not** covered.

This was addressed in a GP lecture "Environmental influences on Health", also briefly touched on in "Clinical features and staging of lung cancer", "clinical features of COPD" and "Obstructive airway diseases" from the Respiratory block (as risk factor). This topic was also mentioned in the "Health inequalities" GP lectures. There is also a sustainability session in year 5 Professional Practice Block.

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

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	This topic was not covered.

This was covered in the environmental influences on health lecture in first year in the GP block. Also, during the dermatology lectures the effect of extreme heat was covered including its impact on the cardiovascular system.

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

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	This topic was not covered.

This was not covered in the curriculum.

8. Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?	
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	This topic was not covered.

This was covered in the first year GP lecture on environmental influences on health. It is also covered in the third year medical humanities Student Selected Component on global health.

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

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	This topic was not covered.

This topic was not covered in the curriculum.

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

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	This topic was not covered.

Global health teaching is now started in 1st year with an introductory talk and it covers all aspects of global health but mentions physical and climate issues. This topic is also covered in the global health medical humanities in third year. Also, part of the fifth year Professional Practice Block covered regional effects of climate change in the South Pacific.

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

	Does your <u>medical school</u> curriculum address the reproductive health effects of stry-related environmental toxins (e.g. air pollution, pesticides)?
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 This topic was **not** covered.

In a male reproductive lecture the effect different chemicals can have on sperm production and testosterone was addressed.

12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?		
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	This topic was not covered.	
Due to the high levels of radiation in the Aberdeen area this was covered in lectures. Other threats are		

Due to the high levels of radiation in the Aberdeen area this was covered in lectures. Other threats are currently not covered in the curriculum. The student-run Global Health society ran an evening lecture on the environmental policies at the university discussing subjects like recycling, active transport and

what companies the university use as suppliers and their environmental policies. This topic was also addressed in the Sustainable Medicine Student Selected Component.

13. To what extent does your <u>medical school</u> emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
3	Indigenous knowledge and value systems are integrated throughout the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included briefly in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in elective coursework.
0	This topic was not covered.
This content was not covered in core curriculum or elective coursework	

14. Does your <u>medical school</u> 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, Indigenous populations, and older adults?

- 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 This topic was **not** covered.

Toxins were addressed by the Foundations of Primary Care module at the University of Aberdeen but not with respect to those with low socio-economic status (SES), women, communities of colour, children, homeless populations, and older adults. This has not changed since last year.

Curriculum: Sustainability

15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
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	This topic was not covered.

This topic was briefly covered in the nutrition lectures during the cardiovascular block but there are also opportunities to do student-run projects on nutrition and summer internships working with the academic staff in the Rowett Institution. In the third year complementary and Alternative Medicine and Therapies" lecture from the Specialities block the health benefits of a plant based diet are mentioned. In first year nutrition is now an option in the Student Selected Component.

16. Does your <u>medical school</u> curriculum address the carbon footprint of 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.
0	This topic was not covered.
This is addressed in the sustainability and resilience lecture in the GP block and in the Sustainable	

This is addressed in the sustainability and resilience lecture in the GP block and in the Sustainable medicine Student Selected Component. Safe and correct waste disposal is covered in an online module which students are required to sit every year to pass into the next year.

17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	
2	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
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 fulfill this metric.
1	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; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
	Teaching on the health implications of over prescribing is taught but not in relation to the environment. Social prescribing is taught in the GP lectures. Many of these topics are covered in

the Sustainable medicine Student Selected Component but have not been incorporated into the main curriculum yet.

Curriculum: Clinical Applications

	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?	
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	No, there are not strategies introduced for having conversations with patients about climate change	
No this has not been implemented into the curriculum.		

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

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

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

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

The University of Aberdeen trains its students on taking a full history which includes occupational history which is a way of assessing the risk of work related environmental exposures.

Curriculum: Administrative Support for Planetary Health

20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
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.
The medical school is over time improving the curriculum to include more lectures on sustainable healthcare. A lead for sustainable medicine for integration of sustainability into the curriculum has been employed by the medical school which should help to make further changes in the coming years.	

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

6	Planetary health/ESH topics are well integrated into the core medical school curriculum.
4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
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.

The University of Aberdeen has a systems based approach in teaching. There are occasionally lectures that cover sustainability and environmental topics. Currently in fourth year they are also trying to incorporate more sustainable medicine into the block teaching.

22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?

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

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

There is also now a staff member employed by NHS Highlands to help with integration of planetary health topics into the curriculum. However, the University is based in Grampian so to achieve higher points I recommend someone be employed here.

Section Total (34 out of 72)

47%

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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.

1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?

- Yes, there are faculty members at the **medical school** who have a **primary research** focus in 3 planetary health or healthcare sustainability.
- Yes, there are individual faculty members at the **medical school** who are conducting research 2 **related** to planetary health or healthcare sustainability, but it is not their primary research focus.
- There are planetary health and/or healthcare sustainability researchers at the **institution**, but none 1 associated with the medical school.
- No, there are **no** planetary health and/or healthcare sustainability researchers at the **institution** or 0 medical school at this time.

A programme is led by a researcher in Aberdeen supported by the Health Systems Research Initiative from the Medical Research Council, Economic and Social Research Council, Wellcome Trust which includes research on <u>Planetary Health topics</u>. The University of Aberdeen has set out its long term strategy (for 2040) which places Sustainability and Interdisciplinary at the centre of its research priorities. It has established Health, Nutrition and Wellbeing as one of five key Interdisciplinary Research Challenges and appointed a Dean (a professor from the School of Medicine, Medical Sciences and Nutrition (SMMSN)) to lead this.

2. Is there a dedicated department or institute for interdisciplinary planetary health research at vour institution?

3	There is at least one dedicated department or institute for interdisciplinary planetary health research.
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.
At the University of Aberdeen there is a department that is focused on the <u>Environment and</u>	

<u>Biodiversity</u>. There is also *interdepartmental research* looking at the interdisciplinary challenges of our

time. These include health, nutrition and wellbeing, environmental and diversity, energy transition, social inclusion and cultural diversity and data and artificial intelligence. The Rowett Research Institute undertakes a substantial number of research projects into sustainable nutrition including barriers to adopting a healthier and more sustainable diet and identifying more resilient and sustainable crops for the future.

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>medical school</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.
 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 There is **no** process, and **no** efforts to create such a process.

At the University of Aberdeen one of the main strands of research currently is researching how the University can achieve their goal of net zero by 2040. Information on whether communities affected disproportionately impacted by climate change give input about research agendas was not found on the website. The University and medical school have a good public <u>engagement programme</u>

4. Does your <u>institution</u> have a planetary health website that centralizes ongoing and past research 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	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.
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.
As part of the Aberdeen University website there is a sustainability section of the <u>website</u> this provides	

As part of the Aberdeen University website there is a sustainability section of the <u>website</u> this provides information about the Universities Sustainability commitments, upcoming events, University societies related to climate change and links to research.

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

4	Yes, the medical school has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the institution has hosted at least 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	No, the institution has not hosted a conference on topics related to planetary health in the past three years.

Events were held during climate week this year at the medical school to raise awareness of climate change. This included a Planetary Health Conference in the Inverness teaching facility arranged by the teaching fellows that was then streamed to people in Aberdeen.

6. Is your <u>medical school</u> a member of a national or international planetary health or ESH organization?

- 1 Yes, the medical school is a member of a national or international planetary health **or** ESH organization
- 0 No, the medical school is **not** a member of such an organization

The University is part of the Sustainable Development Goals Accord which works towards achieving the sustainable development goals.

Section Total (12 out of 17)

71%

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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 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.

1. Does your <u>medical school</u> partner with community organizations to promote planetary and environmental health?

- 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 The **institution** partners with community organizations, but the medical school is not part of that partnership.
- 0 No, there is **no** such meaningful community partnership./

Multiple medical school societies promote planetary and environmental health including; The <u>Aberdeen Sustainable Medicine Society</u>, <u>Students for Global Health society</u>, and the <u>MedAid society</u>. An example of work being done in the medical school with partner organisations is in the Rowett Institute, where there has been collaboration with the World Wildlife Fund UK where researchers have sought create a new modelling tool that combines <u>mutritional and sustainability data</u>. Research like this helps promote planetary and environmental health. There are also a wide range of posters created by the Rowett Institute to educate the public on different planetary health topics. Also, they undertake a lot of community events in the city and across Scotland and publish material to promote a better understanding of the research they undertake and its influence on policy.

The university furthermore is a member of multiple sustainability networks; the Environmental Association for Universities and Colleges, North East Scotland Climate Change Partnership and Sustainable Scotland Network.

	2. Does your <u>medical school</u> offer community-facing courses or events regarding planetary health?	
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	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.	

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

<u>The Rowett institute within the medical school ocassionally host community facing events that are easy</u> to book to attend for the public. The medical school contributes to both <u>Café med</u> and <u>Café Sci</u> events. Designed for a community and patient audience, these events often have a focus on planetary health and sustainability. The university's Café connect podcast has provided podcasts on a range of topics many of which include partial themes of sustainability, however there have not been any wholly focussing on planetary health. During <u>North East Climate Week</u> there were events everyday during lunch to raise awareness of Sustainability in the NHS which was open to the <u>public to attend</u>.

3. Does your <u>medical school</u> 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 Students **do not** receive communications about planetary health or sustainable healthcare.

Communication from the medical school and Aberdeen University Student's Association (AUSA) do often detail sustainable healthcare topics. This could be improved through collaboration with others to understand the sustainable healthcare work done in the medical school and include it into communications.

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.

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

0 There are **no** such accessible courses for post-graduate providers

There is a Masters in Environmental Management which is an interdisciplinary programme which promotes an understanding of key environmental issues within sustainability and environmental management.

5. Does your <u>medical school</u> or its primary <u>affiliated hospital</u> 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 **No** affiliated medical centers have accessible educational materials for patients.

Aberdeen Royal Infirmary's respiratory medicine department has literature and posters related to workplace exposures and asbestos. Across the hospital there are also travel, diet, exercise, and smoking posters. Although there is a good degree of information on environmental health there is currently no information related to climate change directly advertised to patients.

6. Does your <u>medical school</u> or its <u>primary affiliated hospital</u> 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.

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

There are currently no resources on climate change and health impact. This is an improvement that could be made by the society with the help of the medical school.

Section Total (10 out of 14)

71%

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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.

1. Does your <u>medical school</u> or your <u>institution</u> offer support for medical students interested in enacting a sustainability initiative/QI project?

- 2 Yes, the **medical school** or **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum.
- The **medical school** or **institution** 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 and there is no requirement to participate.
- 0 No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.

Aberdeen University run both sustainability humanities modules and electives which are funded by the university to enable students to carry out projects on sustainable medicine

2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?
 2 The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
 1 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.
 0 There are no opportunities for students to engage in planetary health/sustainable healthcare

There is a medical humanities project which allows students to undertake research on a topic in Inverness. These research projects are arranged by Dr Morven Wilson, Dr Kenneth Barker and Dr Hal Robinson. There are clinicians within the medical school who have a primary research focus on planetary health and healthcare sustainability.

3. Does the <u>medical school</u> 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.

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.

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.

0 There is **no medical-school** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

The <u>medical humanities web page</u> provides information on sustainable medicine projects and the appropriate supervisors to contact. The university website does provide information on recent sustainability publications however, there are no explicit avenues for students to get involved in ongoing initiatives. Opportunities will hopefully expand in the future as the Africa-Asia Centre for Sustainability is developing a scheme which would provide Global Internship Opportunities for University of Aberdeen students.

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

2	Yes, there is a 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.

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

Aberdeen University supports the <u>Students for Global Health society</u> and <u>Wilderness and Expedition</u> <u>Medicine society</u>. These student-run initiatives organise events with a focus on environmental health. They can apply for university funding alongside external sponsorships and student subscriptions fees.

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

1 Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.

0 No, there is no such student representative.

The University of Aberdeen Student Union does have an Environment & Ethics committee which aims to hold the University to account for its own Environmental and Ethical, and policies, and Support and develop student-led environmental <u>activities and initiatives</u>. Also, there is a newly established group that is working on improving the sustainability of clinical skills teaching and there is a similar group looking at sustainability of laboratory research labs in the medical School. These have been opened up to have student representatives.

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) Projects where students are able to gain experience in organic agriculture and sustainable food 1 systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects. Panels, speaker series, or similar events related to planetary health that have students as an 1 intended audience. 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 1 professionals can partner with their community to address these exposures and impacts. Cultural arts events, installations or performances related to planetary health that have students as 1 an intended audience Local volunteer opportunities related to building community resilience to anthropogenic 1 environmental impacts. Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other 1 outings for students) During Climate Week, talks on the theme of sustainable medicine and the links between climate change and healthcare were organised and were advertised to medical students. The Wilderness and Expedition Medicine Society held a Freshers weekend in Aviemore. The <u>Student MedAiD</u> society regularly offers volunteer opportunities to help transport donated medical equipment from Aberdeen to Inverness.

Although the following are not Medical School Societies, they are available to medical students: There is a <u>Shared planet society</u> which is a platform for social and environmental activism and cultural exchange. It is also part of the FareShare movement for tackling food waste - volunteers collect surplus food from local shops as well as donations, and bring it to a Food Sharing Hub. It also has two Swap Shops. The <u>Conservation Society</u> organises frequent outdoors trips, advertises volunteering opportunities, documentary watch parties, and talks on conservation. The <u>Secret Garden Society</u> organises weekly gardening sessions, vegan cooking sessions, and DIY workshops related to sustainability, as well as advertises volunteering opportunities.

Section Total (10 out of 15)

67%

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Campus Sustainability

<u>Section Overview:</u> 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.

1. Does your medical school and/or institution have an Office of Sustainability?		
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	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.	
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	
At the University of Aberdeen there is a <u>sustainable development committee</u> , composed of 21 members, whose purpose is to keep the University moving towards the <u>Aberdeen 2040 strategic plan</u> . The Chair of this committee is the Senior Vice Principal of the University which shows the support of the senior leadership team of the University. NHS Highland have recently employed a stuff member to look at implementation of Sustainability into the curriculum.		

2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?		
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030	
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040	
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate	
0	The institution/medical school does not meet any of the requirements listed above	
	The University has a commitment to becoming net-zero before 2040 in its Aberdeen 2040 strategy. We are currently in the process of developing a comprehensive Net-Zero Strategy in support of that commitment, with an initial draft shared at the last meeting of our Sustainable	

Development Committee (chaired by the Senior Vice-Principal) in December 2022. A working group is being established to take that forward.

An initial allocation of capital funding has been made available in the University of Aberdeen's capital programme to take forward net-zero projects that will assist in that process. We have compiled a project register of net-zero related interventions that we will systematically take forward in coming years. For 2023 we have received Estates Committee approval to proceed with an initial batch of infrastructure projects (for which we are currently tendering for a contractor). These include a series of heating centre upgrades across our campus that will improve efficiency and future proof our heat distribution network for the changes ahead (e.g. a move to a lower carbon heat source) as well as the installation of a buffer vessel to capture heat. These are the first projects taken forward under the net-zero heading, with previous energy efficiency projects taken forward as part of our 2016/2021 Carbon Management Plan resulted in a 34% reduction in recorded emission, with new plans to be published this year. This is described in further detail on this website:

The <u>University signed the Race to Zero for Universities and Colleges</u>, an initiative led by EAUC -The Alliance for Sustainability Leadership in Education and Second Nature with support from the UN Environmental Programme (UNEP).

University of Aberdeen's overall global ranking for the Times Higher Education Impact Factor, which <u>assesses the contribution to delivering</u> the United Nations Sustainability Developmental Goals (SDG) was in the 101-200 cohort from 1406 institutions worldwide; global top 50 ranking for SDG 13"Climate Action".

3. Do buildings/infrastructure used by the <u>medical school</u> 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 Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
- 0 Medical school buildings source **<20%** of energy needs from off-site and/or on-site renewable energy.

The Aberdeen Medical School (Suttie Centre) draws its heat and electricity from Combined Heat and Power Station operated by the NHS. This system generates electricity and captures waste heat which is distributed around a number of buildings. The system is fuelled by Natural Gas and Biomass and is a Low Carbon Technology. There is also back up grid electricity and gas fired boilers when demand outstrips the supply. There is also a small Rain Water Harvesting system installed.

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

- ³Yes, 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 Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have **not been retrofitted.**
- 1 Sustainable building practices are **inadequately or incompletely** implemented for new buildings.
- 0 Sustainability is **not considered** in the construction of new buildings.

The Sustainable Buildings section of the Aberdeen University <u>Environmental Sustainability Policy</u> sets out our commitments to sustainability in the context of campus development, whether it be refurbishment or new build.

The University of Aberdeen school of medicine is primarily located in one building, the Suttie centre, which secured BREEAM 'Excellent' ratings and were recognised nationally. Our main library on the central campus, Sir Duncan Rice, has also been a recipient of this award. Our projects have reinforced these commitments by embedding technologies such as micro-renewables and other sustainability initiatives such as rainwater harvesting e.g. within the Sir Duncan Rice Library.

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

Yes, the medical school has implemented strategies to encourage and provide

2 **environmentally-friendly transportation options** such as safe active transport, public 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.

- 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.

The medical school runs a free campus bus service to allow students to travel from the central campus and halls of residence to the medical school. There are cycle lanes to allow safe cycling on main arteries to the medical school. There is ample and safe cycle storage on the medical school campus. When travelling by car there is instruction from the Medical School to carpool where possible. All of these are easily accessible and frequently utilised by students.

6. Does your <u>medical school</u> have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?		
2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.	
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.	

All medical school buildings have a bin system which allows for composting and recycling with clear signage

7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?		
3	Yes, the medical school has a dequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.	
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.	
The University has reduced the number of overall food and beverage deliveries by reducing their number of overall suppliers. This has reduced the number of vehicles being required by 3,750 a year.		

The Oniversity has reduced the number of overall food and beverage deliveries by reducing their number of overall suppliers. This has reduced the number of vehicles being required by 3,750 a year. The cups used in the University cafes are biodegradable and there is also a monetary incentive to bring your own mug. Ways that the medical school could improve is by having meat free days. There is a carbon reducing policy and sustainability criteria for the <u>procurement of food and beverages</u>.

8. Does the <u>medical school</u> or <u>institution</u> apply sustainability criteria when making decisions about supply procurement?

- 3 Yes, the medical school has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement.
- 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.

Procurement at University of Aberdeen medical school adheres to a procurement policy which takes into account our sustainability goals as a university and medical school.

9. Are there sustainability requirements or guidelines for events hosted at the medical school?		
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.	

The Aberdeen University Students Association (AUSA) has sustainable event guidelines but these are not shared with societies just registered at Foresterhill. The Aberdeen Sustainable Medicine society are currently looking at how sustainability guidelines can be created for medical school events.

10. Does your <u>medical school</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?		
2	Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.	
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.	
The only lab space used is the Anatomy Labs. For these students are required to buy their own lab		

The only tab space used is the Anatomy Labs. For these students are required to buy their own tab coats which cuts down on disposable apron usage. Disposable gloves are used during the sessions and paper booklets. On the University website they <u>state</u> that they realise the amount of wastage lab spaces use and they are looking for ways to address this. The lights in the anatomy labs are motion censored and there are recycling bins. There is currently a new clinical skills group looking at disposables used in teaching and how to make the clinical skills department more environmentally sustainable. The new Science Teaching Hub developed a "paperless lab" for medical science teaching using digital technologies rather than laboratory handouts and paper lab books.

11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?		
4	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.	
3	The institution is entirely divested from fossil fuels.	
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments.	
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.	
After campaigning from the students and staff the University does not currently have any investment directly into any fossil fuel companies. According to their <u>website</u> their indirect holdings are currently pooled at less than 3% of the total investment profile. By 2025 or before if practical, they will reduce these holdings in pooled assets to zero. They also have full divestment on the <u>divestment database</u> . It does not state that they have made a commitment to reinvest divested funds into renewable energy		

Section Total (24 out of 32)

companies.

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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%

Planetary Health Grades for The University of Aberdeen School of Medicine

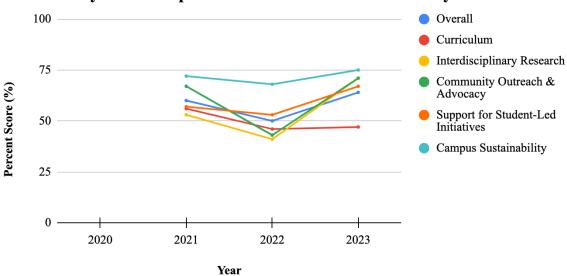
The following table presents the individual section grades and overall institutional grade for the The University of Aberdeen School of Medicine on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(34/72) \ge 100 = 47.22\%$	С
Interdisciplinary Research (17.5%)	(12/17) x 100 = 70.59%	В
Community Outreach and Advocacy (17.5%)	(10/14) x 100 = 71.43%	В
Support for Student-led Planetary Health Initiatives (17.5%)	(10/15) x 100= 66.67%	В
Campus Sustainability (17.5%)	(24/32) x 100 = 75.00%	B+
Institutional Grade	63.81%	В-

Report Card Trends

Section Overview

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



Planetary Health Report Card Trends for The University of Aberdeen