

Education about Planetary Health and Sustainable Healthcare in low- and middle-income countries: Planetary Health Report Card assessment of perceptions at University of Cape Town Faculty of Health Sciences

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Abstract

Background. The *Planetary Health Report Card (PHRC)* was developed by medical students in the USA as a metric-based scorecard and institutional advocacy tool for planetary health (PH), with respect to five categories: Curriculum, Community Engagement, Student Leadership, Research, and Campus Sustainability. The PHRC has expanded into a global initiative, although its use by faculties in low- and middle-income countries (LMICs) has been very limited. **Objectives.** To assess perceptions at the Faculty of Health Sciences (FHS) of the University of Cape Town (UCT) about PH and sustainable healthcare (SH); and perceptions of the barriers and opportunities for integrating PH and SH into curricula in the UCT FHS. **Methods.** A PHRC was completed for the UCT FHS by means of interviews with key educators. Interview summaries, and scored report cards (where applicable), were shared for validity checking before compilation of the UCT FHS summary report. **Results.** Thirty-nine interviews were conducted, 31 of them with key educators representing nine academic departments. Twenty-three graded report cards were completed with those engaged in PH and SH activities. The PHRC category scores ranged from a grade of D minus (20%) for Student Leadership to a C grade for

Curriculum (54%), with an overall grade of C minus (42%). Education about PH and SH in the UCT FHS is seen as increasingly important yet insufficient. Curriculum overload, “siloes” learning, and poor understanding among educators were perceived as key barriers. PH and SH were proposed as cross-cutting curricular themes for all health sciences disciplines in the UCT FHS. More community engagement, student leadership development, collaborative research, and campus sustainability interventions were recommended in the other PHRC categories. **Conclusion.** The PHRC provides a baseline assessment of PH and SH in a faculty of health sciences in a LMIC contributing towards greater environmental accountability. It should be repeated regularly at the UCT FHS to measure and evaluate progress in integrating PH and SH into transformed curricula, engagement with the communities it serves, development of student leadership, interdisciplinary research, and campus sustainability.

Key words

climate change, education for sustainable healthcare, environmental accountability, health professions education, health sciences curriculum, planetary health, Planetary Health Report Card, social accountability, sustainable healthcare

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Background

Planetary health is a transdisciplinary field and social movement for understanding and addressing the impacts on human health, and all life, from human disruptions to the planet's natural systems.¹ This definition encompasses the many ways in which the environment can affect health, such as the impact of climate change, pollution, biodiversity shifts, and land use changes, on the epidemiology of vector-borne diseases, mental illness, and heat and air pollution-related mortality, among others.²

To address planetary health, several calls have been made to build capacity on climate change and health for health workers, to help address growing health impacts and strengthen the resilience of health systems.³⁻⁷ The 2021 *Consensus Statement on Planetary Health and Education for Sustainable Healthcare* of the Association for Medical Education in Europe (AMEE) recognizes the agency of health professionals to protect planetary health, and urges collective action in health professions education (HPE) linked to the Sustainable Development Goal (SDG) targets by 2030.⁸ Education about planetary health (PH) and sustainable healthcare (SH), or Education for Sustainable Healthcare (ESH), is the development of knowledge, skills, and attitudes in HPE regarding the interdependence of human health and planetary systems, including the impacts of health systems on the environment.⁸

Some low- and middle-income countries (LMICs) are responding to these calls for action. The Global Green and Healthy Hospitals (GGHH) Agenda, for example, has been adopted by many LMICs for mitigating the considerable carbon footprint made by the health system, estimated at 4% to 5% of global greenhouse emissions.⁹ Over 70 countries, about half of them LMICs, have formally committed, under the World Health Organization (WHO) Alliance for Transformative Action on Climate and Health (ATACH), to build climate-resilient and sustainable health systems.⁴ This includes developing the capacity of the health workforce to respond to climate change by updating health curricula and providing ongoing training and support.⁶

In late 2021, the first of three phases of a mixed methods study on evaluating ESH readiness in South Africa was conducted through a national

audit of HPE curricula^[2],¹⁰ via the Education for Sustainable Healthcare Special Interest Group (ESH SIG) of the Southern African Association of Health Educationalists (SAAHE).¹¹ It found that ESH awareness and curriculum development is emerging, although with a limited variety of learning activities and forms of assessment. Further ESH curriculum development was recommended in South Africa, enabled by strong institutional leadership and by staff and student involvement. In the second phase of the study, a Delphi panel favorably assessed the applicability of the AMEE Consensus learning objectives, activities, and assessments to HPE in South Africa.¹²

One potential tool for supporting South Africa (and other LMICs) to update their health professions curricula is the *Planetary Health Report Card* (PHRC), which was developed by medical students in the USA in 2019 as an institutional advocacy tool.¹³ It uses a metric-based scorecard to assess PH with respect to the five categories of Curriculum, Community Engagement, Student Leadership, Research, and Campus Sustainability (Box 1).²

Box 1: Categories of the Planetary Health Report Card (PHRC)

The PHRC has expanded into a global initiative, although participation by LMICs has been very limited; only three of the 105 reports in the 2022-23 PHRC were from LMICs (i.e., India, South Africa, and Malaysia).² The potential applicability of the PHRC in a South African HPE institution was indicated by a 2019 survey of the knowledge and perceptions of UCT FHS students about climate change and environmental sustainability. It found perceptions of high importance, yet low levels of teaching and assessment in current UCT FHS curricula, and few sustainable campus interventions.¹⁴ Exploratory curriculum mapping of the UCT FHS undergraduate medical program (MBChB) confirmed the survey's findings about insufficient curriculum content and assessment of ESH.

Developments at UCT and the FHS over the past few years provide a window of opportunity for integrating PH and SH into the domains represented by the PHRC categories. In 2022, for example, the UCT FHS began an extensive process of curriculum transformation that will establish multidisciplinary

workstreams led by trained educational leaders, Developments at UCT and the FHS over the past few years provide a window of opportunity for integrating PH and SH into the domains represented by the PHRC categories. In 2022, for example, the UCT FHS began an extensive process of curriculum transformation that will establish multidisciplinary workstreams led by trained educational leaders, including one related to ESH. This work may be informed by the Planetary Health Education framework¹⁵ from the Planetary Health Alliance.¹⁶ The framework consists of five foundational domains that contain the essence of PH knowledge, values, and practice: Interconnection within nature; the Anthropocene and health; Equity and social justice; Movement building and systems change; and Systems thinking and complexity.

In preparation for curriculum transformation at the UCT FHS, this final phase of the mixed methods study of ESH in South Africa sought to assess perceptions of key educators at the UCT FHS about PH and SH using the PHRC. Further objectives were to assess their perceptions about the barriers and opportunities for integrating PH and SH into curricula in the UCT FHS.

Box 1: Categories of the Planetary Health Report Card^[2]

- Curriculum: the integration of relevant planetary health topics into curricula.
- Community Engagement: extent of Faculty engagement in community outreach and advocacy efforts associated with planetary health.
- Student Leadership: institutional support for student-led planetary health initiatives.
- Research: the quality and quantity of interdisciplinary planetary health research.
- Campus Sustainability: institutional support and engagement in environmental sustainability initiatives on campus.

Methods

Design

A qualitative approach was followed using individual interviews with key informants in the UCT FHS and university.

Study population and sampling

Key educators were identified in the undergraduate medical program and the health and rehabilitation sciences (HRS) programs as the heads of

departments and departmental divisions, and conveners of academic years and of individual courses, using contact lists provided by the UCT FHS undergraduate administration. A study information letter and an informed consent form were attached to the invitation emails.

Data collection and analysis

Student co-interviewers were recruited via personal contacts of the authors and a volunteer appeal by the UCT FHS Health Sciences Students’ Council. Despite initial interest from some HRS students, they withdrew before commencement of interviews, leaving seven MBChB students in the team. The team was oriented to the global PHRC in an introductory online meeting with the lead author and two international student coordinators of the PHRC. Several follow-up meetings with the student team were held to plan and fully explain the method of data collection at the UCT FHS.

UCT FHS staff who consented were interviewed by the lead author alone, or with a student co-interviewer, online via MS Teams™, using a screen-share of the PHRC questions for one or two of the five sections that were most closely related to their role in the UCT FHS or university. The interviewer read aloud each question and the scoring options and recorded their response, as illustrated for one question in Box 2. The scores for each question were tallied for a total category score for each respondent. Descriptive statistics were employed by calculating aggregate grades for each PHRC category from the dataset of completed report cards. The focus of this paper is the PHRC Curriculum category only.

Box 2: Example of a scoring metric in the curriculum category of the Planetary Health Report Card^[2]

2	Does your medical school 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.

Extreme heat is briefly covered as one of several climate impacts on health in introductory lectures on Climate Change and Health in MBChB year 3 (Critical Health Humanities (CHH) course in semester 5), and MBChB year 4 (Health in Context (HiC) course).

Open-ended questions were added at the end of the PHRC metric questions to assess the perceptions of all interviewees about the extent and quality of undergraduate teaching and assessment of PH and SH in the UCT FHS, and the barriers and opportunities for improvement in all PHRC categories. Educators who reported that they taught no PH and SH topics skipped the scoring metric questions and responded to the open-ended questions only.

In the interviews, the lead author led the introductions and questioning with a student observing. Two of the students subsequently volunteered to conduct two interviews each with the lead author observing and assisting when necessary, so that they could gain some experience for future iterations of the PHRC. Interviews were conducted by the lead author alone if no student co-interviewers were available due to their academic commitments. All interviews were recorded and auto-transcribed via MS-Teams™ and summarized by the lead author using deductive thematic analysis of the transcripts. The cumulative scores from all completed scorecards were tabulated and aggregated for the entire sample by the lead author using MS-Excel™. The summaries, and their completed scorecards (where applicable), were shared with each of the interviewees for validity checking after the interview, and any corrections received were made to the final summaries. If no responses were received from the interviewee after two follow-up attempts within a month following, the summary was accepted as a valid record of the interview. Interviews and transcripts were assigned codes to maintain confidentiality, and all interviewees signed an informed consent form before the interview.

Ethical approval was obtained in August 2021 from the Research Ethics Committee, Faculty of Health Sciences, University of Cape Town (UCT) (ref. no. HREC 358/2021)

Results

Thirty-nine online interviews, each between 30 and 60 minutes in duration, were conducted from August to December 2022. Thirty-one were educators who represented nine academic departments within the UCT FHS. Three additional educators did not respond to the invitations despite two follow-up emails. A further eight non-educators

were interviewed with respect to the non-curriculum aspects of the PHRC. (**Supplementary Table 1: Characteristics of interviewees**).

PHRC grades

Twenty-three report cards were completed with interviewees who reported current engagement with PH and SH. The calculation of the individual section grades (Box 1) and overall institutional grade for the UCT FHS are presented in a supplementary table (**Supplementary Table 2: Planetary Health Grades for the UCT Faculty of Health Sciences**). The aggregate grades (with % of maximum score per category) and key findings for each category are presented in the PHRC Summary for the UCT Faculty of Health Sciences (Table 1). The category scores ranged from a D minus grade (20%) for *Student Leadership* to a C grade for *Research* (53%) and *Curricula* (54%), with an overall grade of C minus (42%).

Perceptions of ESH Curricula

There was near-unanimous agreement that PH and SH principles and topics are increasingly important content for all UCT FHS disciplines, yet almost an equal acknowledgment that these principles are not taught and assessed enough, and are seldom demonstrated in practice.

“I think it's critical for students to be made aware because they need to know what the risk factors are, they need to know what we are facing every day and how that impacts healthcare... it's really important that students are educated about sustainable healthcare, that we're not living in a bubble, that there are other external variables, factors that influence our health.” (PH01)

There is a growing awareness of sustainable practice in some UCT FHS clinical disciplines (e.g., nephrology; surgery; medicine) that is being spurred on by global developments towards more sustainable clinical practice and decarbonized healthcare:

“I have been quite involved in infectious diseases in nephrology globally and there has been quite a lot of interest in how infectious diseases are changing with climate change and how they affect kidney disease. Definitely there is a lot more we can do

Table 1: 2022-23 PHRC Summary for UCT Faculty of Health Sciences

PHRC Category	Grade (%)
Curricula	(54%)
<p>1. Planetary health (PH) and sustainable healthcare (SH) topics are included in the FHS medical (MBChB) and health and rehabilitation sciences (HRS) programmes. Chronic curriculum overload; 'siloed' learning and timetabling; and low consciousness among educators are key barriers to integration.</p> <p>2. There is growing awareness of the need for SH, despite insufficient leadership; few 'best-practice' examples; and the general priority given to cost-cutting over an ethic of sustainability.</p> <p>3. Recommendations:</p> <ol style="list-style-type: none"> Adopt transdisciplinary and interfaculty approaches towards integration of PH and SH. Incorporate indigenous ecological knowledge and values into curriculum design and delivery. Integrate PH and SH into foundational year lectures and problem-based learning (PBL) cases. Teach clinical educators about SH for more sustainable practice in clinical teaching environments. 	
Community Engagement	D+ (36%)
<p>1. There is little awareness-raising and advocacy by the FHS to protect local communities' health from environmental and climate threats, and to promote more sustainable healthcare.</p> <p>2. Recommendations:</p> <ol style="list-style-type: none"> Develop more active community partnerships that address environmental health threats. Produce educational materials about how to mitigate climate-health impacts. 	
Student Leadership	D- (20%)
<p>1. The FHS provides little support and no funding for PH and SH-related student projects.</p> <p>2. Recommendations:</p> <ol style="list-style-type: none"> Offer opportunities for quality improvement (QI) and community-based sustainability projects. Collaborate with student leaders for sustainability in curricula development and campus operations. 	
Research	C (53%)
<p>1. The UCT Khusela Ikamva ("Secure the Future") Sustainable Campus project is developing a diverse community of practice that is informed by leading research.</p> <p>2. Recommendations:</p> <ol style="list-style-type: none"> Khusela Ikamva should include more FHS researchers. The FHS should seek local and international partners in PH research. 	
Campus Sustainability	C- (41%)
<p>1. UCT's Environmental Sustainability Strategy has a goal of a net zero carbon, water and waste-to-landfill campus by 2050 or sooner, led by a Director of Sustainability.</p> <p>2. Waste recycling is promoted; and sustainable water management is practised, but without effective monitoring and evaluation. Renewable energy use is low and green building standards are not prevalent.</p> <p>3. A pilot orientation course is being transformed into a 'sustainability literacy' course for all faculties.</p> <p>4. Recommendations:</p> <ol style="list-style-type: none"> Increase energy efficiency and solar power on new green building projects. Increase training and promotion of waste recycling. Evaluate the pilot orientation course on sustainability. 	
Overall	C- (42%)

about understanding the effects of climate change on disease and trying to educate both our undergraduates and postgraduates." (MED02).

Barriers to ESH Curricula

Curriculum overload was cited most often as a barrier to curriculum integration of ESH. Insufficient awareness and understanding of sustainability and its clinical applicability among faculty educators, "siloed" learning and timetabling, and a lack of "best practice" examples were also frequently cited.

"The nature of the curriculum, the different timetables for different years across different disciplines means that what should be a priority across years and across health sciences, different disciplines and beyond them is almost impossible to find a shared teaching space where this work could be done in a way that provided a core for all health sciences disciplines and then allowed specialization in people's particular callings" (PHC02).

A senior Faculty leader noted the lack of systems thinking necessary to effectively address complex and inter-related environmental and health system and healthcare challenges:

"Sustainable Healthcare links to what I have a passion for, which is really understanding that everything operates in big systems. So even healthcare is just a portion of a broader health system that incorporates energy, water, sanitation, infrastructure, etc. I think that there's a big gap in a systems approach in ...understanding key aspects of environmental health and planetary health that needs to be addressed" (FHS01).

A clinician spoke of how the ethic of sustainability and the fair distribution of limited resources often conflicts with his duty of care to individual patients:

"Public health kind of clashes with surgical principles in a sense that you're very familiar with the principles of public health and the attempt for distributive justice, but obviously as a surgeon who encounters a sick patient, your duty of care is really to that individual to almost the exclusion of all other concerns." (GS04).

He also expressed concern about the vast amount of healthcare waste of single-use devices, and his view that

there are powerful vested corporate interests opposed to reprocessing, which has prompted him and others to advocate for changing national policy on the reuse of such devices.

His colleague believes that their staff *are aware of the non-sustainable practices that need to be changed, such as single-use items:*

“But I think primarily when people look at reuse of items, it's to save money for things that they feel don't need to be single-use items because the companies don't really have any incentive to make them reusable items. And so many of our staff are looking at changing policies from a date-based expiry to event-based expiry... But that kind of approach needs to have some sort of evidence base behind it” (PH04).

Others spoke of how the need to cut costs and to deal with urgent challenges in the health system tend to marginalize environmental sustainability. A recently appointed academic head of division and experienced surgeon reflected on the effectiveness of the GGHH at Groote Schuur, the main academic teaching hospital of the UCT FHS and one of several provincial hospitals in South Africa to have adopted their global agenda:⁹

“As an on-the-ground clinician, no idea. As a manager, I haven't been in the post for long, but I haven't heard much about it, so I'm not sure how much momentum there really is. My sense is that you see, we're firefighting every day, and because of that, people are not looking forward” (GS01).

Suggestions for ESH curricula

Several interviewees suggested the need for transdisciplinary and interfaculty approaches towards making sustainability a cross-cutting theme across all years of study:

“I think it should be a much more visible part of our curriculum and it should start from first year and it should filter right across...and perhaps the assessment could somehow be linked to making changes on our campus” (HRS08).

More specific suggestions were to integrate ESH themes and topics into teaching and assessment of the Primary Health Care approach, which is a lead theme of the UCT FHS,¹⁷ and of the International

Classification of Functioning Disability and Health (ICF) framework,¹⁸ which is widely applied in the health and rehabilitation science disciplines. Opportunities for ESH were also noted in clinical training in Surgery, Medicine, Family Medicine, as well as Continuing Medical Education courses:

“I guess it's just being intentional and making it a priority ...I think everyone should be teaching a bit of planetary health basically across the disciplines” (GS02).

The need for a decolonial perspective was a common theme. This was evident in suggestions to include indigenous knowledge practitioners in curriculum design; to involve local environmental health activists in community-based teaching; to introduce small student-led environmental sustainability projects; and to include reflective assessments on personal agency for sustainability in local contexts. Recent initiatives towards decolonization of the HRS curricula were seen as opportunities for embedding environmental sustainability into teaching and practice:

“We've had a seminar and several workshops where we were thinking about what it means to decolonize the curriculum. And I think that we can't do that without talking about environmental sustainability as part of that. So, I think there are opportunities... to start thinking about how we embed this into our practices, rather than making it an add-on.” (HRS06).

Environmental history-taking as a clinical diagnostic tool is included as a learning objective and learning activity in two undergraduate medical courses, yet they are not using the same conceptual framework. An educator in Family Medicine therefore suggested that these frameworks become standardized. A Public Health course convener believed there is insufficient depth in undergraduate teaching of PH and SH, due to limited curriculum time and space—and possibly insufficient educator understanding of its relevance. She suggested more advocacy about the public health and clinical relevance of climate change, and the need for its integration into teaching:

“We need to advocate that planetary health concerns all of us, and there is growing awareness of climate change from media coverage that facilitates its integration. For example, in internal medicine, we can highlight the link to more

pathology associated with climate change and integrate it, rather than seeing it as something that needs to be taught separately. That's the key to teaching it better" (PH03).

Discussion

Development of ESH Curricula

ESH is generally perceived by educators in the UCT FHS as important and relevant to public health and clinical practice, yet insufficiently taught and assessed. Examples of PH and SH topics from the MBChB and HRS programs were shared, which are generally taught and assessed via lectures, problem-based learning cases, assignments, and written exams. These findings are consistent with a 2019 study in the UCT FHS of student knowledge and perceptions of climate change and environmental sustainability,¹⁴ as well as the findings from the national audit¹⁰ and Delphi panel¹² phases of this mixed methods study.

The addition of open-ended questions to the PHRC to assess educators' perceptions of the barriers and opportunities for improvement enhanced its usefulness for informing curriculum developments in the UCT FHS. Chronic curriculum overload; "siloeed" learning and timetabling; and low awareness among educators were perceived as key barriers to integration of ESH in the UCT FHS, which are consistent with the international literature.^{8, 19-21} The priority of cost-saving over an ethic of sustainability, as noted by some participants, supports the need for teaching responsible professionalism in an environmentally accountable medical curriculum, which includes resolving ethical tensions between one's duty of care to individual patients, and advocacy for mitigating the impact of healthcare on the environment.²¹

The necessity of transdisciplinary and interfaculty approaches is implied by the definition of planetary health¹ and the benefits are endorsed by international experience.^{2, 22-24} The support for such approaches amongst UCT FHS educators is consistent with the preceding Delphi phase,¹² which recognized strong leadership, capable educators, and multidisciplinary collaboration as enablers of ESH integration into HPE in South Africa. This requires capacity development of leaders and educators in healthcare institutions and faculties of

health sciences, as called for by the AMEE Consensus⁸ and the Declaration on Planetary Health.³ Teaching clinical educators about sustainable healthcare practice in clinical contexts was recommended by several participants, to build on the growing interdisciplinary awareness and global availability of educational and curriculum resources for ESH.^{8,25,26}

It was also recommended that UCT FHS educators should include community leaders and environmental health activists to assist in integrating indigenous ecological knowledge and values into curriculum design and delivery,^{8,27} which is consistent with intentions in the UCT FHS to decolonize its curricula by including diverse voices, perspectives, and knowledge traditions. Curricular decolonization and education for sustainable development share the goal of global well-being and the common good, leading educational researchers in South Africa to posit that both "*are equally necessary for institutional and broader societal reform and well-being, and that both imperatives may potentially be achieved by focusing on the principles of epistemically diverse curricula.*"²⁸ They have therefore called for academic staff development to prioritize curriculum knowledge and design, and for decolonization, social accountability, and global sustainability to be promoted as similar cross-cutting curriculum imperatives.

Curricular change can be difficult to achieve,^{21,29} but success is associated in the literature with a consistent set of institutional characteristics.³⁰ These characteristics relate to context (e.g., compatibility with an institution's mission, goals and educational philosophy; internal networking, resource allocation, and its relationship with the external environment; and its organizational structure); curriculum (e.g., agreement on the need for change; balance in the scope and complexity of the innovation); and process (e.g., a cooperative climate; good participation and ownership; clear communication; capacity development; valid and formative evaluation; and stable, participative, and visionary leadership). Many of these characteristics were addressed by the other aspects of the PHRC at the UCT FHS, which recommended more community engagement, student leadership development, collaborative research, and campus sustainability interventions related to PH and SH.

Limitations of the study

Potential sources of bias include the selection of interviewees by the lead author alone, as well as the aggregation of the PHRC scores and summaries of the interviews, and the summary of the key findings for the PHRC report, due to the co-authors' time constraints. All UCT FHS interviewees, however, were offered the opportunity to review their interview summaries, and the summary report was shared with the local PHRC student team and with the global editors for checking before publication. The findings of the PHRC have also been shared via multiple presentations in the UCT FHS and with the ESH SIG of SAAHE. These have been opportunities to clarify certain aspects and to communicate the key findings to stakeholders in curriculum development, community engagement, and campus sustainability.

Conclusions

This study has provided a first baseline assessment of PH and SH in the curricula, community engagement, student leadership, research, and campus sustainability of the UCT FHS by means of a metric-based scorecard from the global PHRC initiative. Almost all interviewees recognized the growing importance of ESH, but that current teaching and assessment in the UCT FHS is insufficient and impeded by several barriers. Curriculum overload, “siloes” learning, poor

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understanding among educators, health system challenges, and insufficient leadership were most often mentioned. It was proposed that PH and SH be integrated as a longitudinal theme across all curricula and disciplines, in collaboration with educators and students.

The PHRC has proved useful for this study and for facilitating subsequent discussion with audiences of key stakeholders in the UCT FHS. The PHRC should be repeated in the UCT FHS every two years at least to measure and evaluate progress across all categories. Additional indicators of progress in curriculum integration of SH and PH could be the insertion of related learning objectives and outcomes; multi-professional and collaborative learning activities; and the quantity and diversity of student-centered and community-engaged assessments.

Integration of PH and SH into undergraduate health sciences curricula in LMICs could develop the agency of health professionals to protect health from climate change and planetary degradation, and to contribute to low-carbon and climate-resilient health systems. The crises of climate change and environmental degradation demand new ways of collaboration across the whole gamut of society, and the health sector and faculties of health sciences have leading roles to play.

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Supplementary Table 1: Characteristics of interviewees

Code	Name of Department	Discipline/ Division	Role
ES01	Office of Sustainability	UCT FHS Main Campus	Director of Sustainability
ES02	Office of Sustainability	FHS Operations and Services	Occupational Health & Safety Manager
ES03	Office of Sustainability	UCT FHS Main Campus	Senior Horticulturist
FHS01	Integrative Biomedical Science	Public Health	Deputy Dean: Undergraduate Education, FHS
FHS02	Health Sciences Education	Health Sciences Education	Head of Dept.
FHS03	FHS: Research Ethics	Research	Manager: Research Intelligence
GS01	Surgery	General Surgery	Head of Dept.
GS02	Surgery	Global Surgery	Head of Dept.
GS03	Surgery	General Surgery	MBChB Year 5 convener & Surgery course convener
GS04	Surgery	Urology	Head of Clinical Unit
HRS01	Health and Rehabilitation Sciences	Division of Comm. Sciences & Disorders	Speech & Language Program Convener
HRS02	Health and Rehabilitation Sciences	Division of Comm. Sciences & Disorders	Senior Lecturer -Audiology
HRS03	Health and Rehabilitation Sciences	Division of Comm. Sciences & Disorders	Head of Division
HRS04	Health and Rehabilitation Sciences	Division of Disability Studies	Head of Division
HRS05	Health and Rehabilitation Sciences	Division of Nursing & Midwifery	Head of Division
HRS06	Health and Rehabilitation Sciences	Occupational Therapy	Head of Dept.
HRS07	Health and Rehabilitation Sciences	Occupational Therapy	Year 1 academic convener
HRS08	Health and Rehabilitation Sciences	Occupational Therapy	Head of Division
HRS09	Health and Rehabilitation Sciences	Physiotherapy	Program Convener
HRS10	Health and Rehabilitation Sciences	Physiotherapy	Head of Division
HUB01	Human Biology	Biokinetics	Head of Division
HUB02	Human Biology	Physiological Science	MBChB Year 1 academic convener
HUB03	Human Biology	Physiological Science	MBChB Year 1 academic convener
MED01	Medicine	Division of Rheumatology	MBChB Year 6 academic convener
MED02	Medicine	Division of Acute General Medicine	MBChB Year 4 academic convener
PH01	Public Health	Public Health	Course co-convener
PH02	Public Health	Public Health	Course co-convener
PH03	Public Health	Public Health	Course convener
PH04	Public Health	Public Health	Honorary lecturer (Quality Improvement)
PH05	Public Health	Public Health	Course co-convener
PH06	Family Community and Emergency Care	Family Medicine	Head of Division
PH07	Family Community and Emergency Care	Family Medicine	MBChB Year 2 academic convener
PHC01	Family Community and Emergency Care	Primary Healthcare Directorate	Convener: Critical Health Humanities
PHC02	Public Health	Social and Behavioral Sciences	Convener: Critical Health Humanities
PTH01	Pathology	Anatomical Pathology	MBChB Year 3 academic convener
SHW01	UCT FHS	SHAWCO	Executive Director
SHW02	UCT FHS	SHAWCO	Student President 2022
UCT01	African Climate & Development Initiative (ACDI)	Transdisciplinary	Deputy Director
UCT02	Dept. of Civil Engineering	Future Water Institute	Research Fellow

Supplementary Table 2: Planetary Health Grades for the UCT FHS

Category (Weighting %)	Score	Max. score	%	Grade
Planetary Health Curriculum (30%)	39	72	54.2	C
Interdisciplinary Research (17.5%)	9	17	52.9	C
Community Outreach and Advocacy (17.5%)	5	14	35.7	D+
Support for Student-led Planetary Health Initiatives (17.5%)	3	15	20.0	D-
Campus Sustainability (17.5%)	13	32	40.6	C-
OVERALL	69		42.4	C-