Planetary Health Report Card (Medicine):

Srirama Chandra Bhanja Medical College and Hospital (Utkal University)

2024-2025 Contributing Team:

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Summary of Findings

Overall Grade	C

Curriculum	A-

- SCBMCH has progressively incorporated planetary health into its curriculum across the first three years, integrating relevant topics into various lectures. However, there is no dedicated discussion on planetary health or carbon footprint in seminars or tutorials.
- **Recommendations**: Introducing a standalone coursework or module focused on planetary health and the health impacts of climate change would be beneficial. Additionally, utilizing flashcards or other effective communication tools to highlight locally relevant climate-related health issues could foster better patient discussions.

Interdisciplinary Research	C

- SCBMCH has an ethics committee and a newly established Multidisciplinary Research Unit, primarily focused on clinical research with direct clinical impact. However, there is limited publicly available information on conferences or past research specifically related to planetary health.
- **Recommendations**: SCBMCH should form a committee dedicated to planetary health and sustainable development research in collaboration with Utkal University's Centre for Environment, Climate Change and Public Health. Setting up a website dedicated to planetary health updates and news is essential.

Community Outreach and Advocacy	D-

- While SCBMCH organizes community engagement activities, these primarily focus on clinical knowledge and health awareness. There is a lack of accessible educational materials in hospitals to promote planetary health among patients.
- **Recommendations**: Forming a planetary health committee, including a student representative, to lead outreach initiatives in schools, colleges, and underserved communities would enhance awareness. These efforts should emphasize the health impacts of climate change and sustainable healthcare practices.

Support for Student-Led Initiatives	C

- SCBMCH encourages student-driven activities, but there have been limited initiatives related to planetary health. The absence of a dedicated research group, along with insufficient mentorship and support at the undergraduate level, hinders student-led quality improvement projects and research in this field.
- **Recommendations**: The medical school should foster greater awareness and actively support students interested in planetary health by facilitating networking opportunities with faculty and researchers from diverse disciplines. Establishing a structured platform for interdisciplinary collaboration would further enhance student involvement.

Campus Sustainability	D-

- SCBMCH has taken steps toward sustainability by incorporating eco-friendly building materials and optimizing energy use. Water management initiatives have led to a 28.9% reduction in consumption, as recognized by the Green Rating for Integrated Habitat Assessment. However, significant progress is needed to achieve carbon neutrality.
- **Recommendations**: SCBMCH should adopt a net-zero carbon goal. Encouraging a cleaner campus environment and promoting active transportation options, such as walking and cycling, would help reduce the institution's carbon footprint while supporting public health.

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.

- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.

- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:

    1. Describe how the environment and human health interact at different levels.
    2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
    3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

- **Medical School/Department vs. Institution:** When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is

specifically targeted for medical students, can meet this metric.

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.

- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.

- **Core Curriculum:** This refers to taught material that is develiered to the entire cohort of students in one year.

- **Clerkship / Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.

- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).

- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.

- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.

- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.

- **Extractivisim:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to

the historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.

- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.

- **Low socioeconomic status (SES):** An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.

- **Low and Middle-Income Countries (LMIC):** Countries that have lower degrees of economic affluence.

- **Anthropogenic:** Created through human activity

- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

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

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

Planetary Health Curriculum

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

	1.1. Did your medical school 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. (3 points)
2	Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)
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. (1 points)
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. (0 points)
Score explanation: SCBMCH offers a 30 day research based elective to 4th year medical students, but planetary health is not the primary focus of the elective.	

Curriculum: Health Effects of Climate Change

	1.2. 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.
Score explanation*: In the academic year 2024-25 the effect of extreme heat and pollution on the human lbody, especially associated health risks like heat stroke, were extensively discussed under*	

CM (Community Medicine) 3.1 competency given in competency-based undergraduate curriculum issued by National Medical Commission (NMC). Furthermore, as a part of the third-year core curriculum at SCBMCH, the Community Medicine lecture titled 'Heat and its effect' under the unit 'Environment' features a discussion on heat and its health hazards including heatstroke, heat cramps, heat exhaustion,hyperthermia and others. Forensic Medicine and Toxicology also briefly deals with heat and its effects under the header of "Thermal Injuries"as per FM 2.24 competency of NMC.

	1.3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?
3	This topic was explored **in depth** by the **core** curriculum. (3 points)
2	This topic was **briefly** covered in the **core** curriculum. (2 points)
1	This topic was covered in **elective** coursework. (1 point)
0	This topic was **not** covered. (0 points)

Score explanation:A lecture on disaster management in Community Medicine covered the various extreme weather events. It discussed how they impact individual health and overwhelm the healthcare system. Techniques to meticulously manage these crises through triage and contingency plans along with preventive strategies at various levels were taught. The lecture included ways our community andhospitals can be prepared for extreme weather events, especially cyclones, which are very common in the state of Odisha (where the medical college is situated).

	1.4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

Score explanation: The third-year core curriculum in Community Medicine titled 'Concept of health and diseases' defines the determinants of health and gives examples of each. Under the 'Environmental determinants' section , there is a point listed as 'External environment' which talks about physical, biological and psychological components. Protection and promotion of family and environmental health are the major issues in the world today. Additionally, in the chapters on various infectious diseases, like malaria & dengue, different risk factors including climate change and urbanisation were briefly covered. Also, in the lecture on 'Zoonotic diseases', anthropological causes for the emergence of exotic infections were discussed. The impact of climate change on water-borne and vector-borne diseases like increase of infection area, seasonal duration etc was extensively discussed through several slides in each topic under competency CM3.3, CM3.6 & CM3.7, mentioned in the competency-based undergraduate curriculum issued by NMC, under the broad topic of 'Environment Health Problems' .

	1.5. 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.
Score explanation: At SCBMCH , in the third year core curriculum a lecture is dedicated to air pollution and impact on respiratory health. Climate change was briefly integrated into this lecture in the form of indices of thermal comfort zones and how global warming is distorting these. Mitigation measures to reduce the border of air pollution were discussed. *In the fourth year core curriculum , in internal medicine, a disease wise approach was taken and they briefly discussed environmental hazards, toxins, and pollution as causes of diseases like COPD ,related ailments and cancer.*	

	1.6. 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.
Score explanation: At SCBMCH in the first year of medical School under the physiologic core curriculum competency PY 11.8 cardiorespiratory changes in exercise, both isometric and discussed and cardiorespiratory changes, interesting state and various environmental conditions such as heat and cold, compared and lecture was taken for the PY 11.8 in which the cardiovascular as well as the respiratory health effects of climate change where exploded in depth again under competency PY 5.9. The effects of increased environmental temperature and heart rate cardiac output discussed in addition, increased risk of cardiovascular joined due to construction of blood vessels in cold environment was briefly described.	

	1.7. 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.
Score explanation: at SBM says this topic was explored in depth in the first year, subject of physiology in the chapter title stress in the first year lectures, the negative impact of climate change, food, insecurity, and population displacement, and mental health discussed. Additionally, the potential triggering of mental illness such as depression and anxiety from environmental exposure such as air pollution and extreme weather conditions were discussed strategies to reduce stress and improvement well-being, such as through green spaces that helps individuals to be connected to the natural environment while providing fresh air to breathe, we all six covered.	

	1.8. Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?
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.
Score explanation: at (SCB) MCH a lecture on sustainable development goals addressed topics like eradication of poverty and hunger and ensuring environmental sustainability. The topic ecosystem and health was covered in the chapter environment and health. The importance of water, security and food security was also highlighted in the lecture on public health programs in India, malnutrition and its causes, including food and security. Due to the climate change were explained. The topic nutrition aimed to present the varied dietary patterns in India and indirectly implied. The role of topic nutrition aim to represent the various dietary patterns in India and indirectly impacts the role of climate changes, staple diet and water. The requirements in the second year of medical School under competency of CM 5.3 of the community medicine, core curriculum. We should buy the NMC, the role of climate change in reducing freshwater resources and food production leading to impaired nutrition, health and survival was discussed along with the impact of climate change induced natural calamity and food security	

	1.9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?
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.
Score explanation: how climate change affects marginalised population is not directly covered in our curriculum. However, factors that contribute to climate change such as mining and specific regions of the state such as Sukinda and how it affects the tribal population mentioned in the lecture on chronic diseases. The pi epidemiology section discussed how indigenous discovered is in mining areas and older adults are disproportion affected lectures. Also discussed how heat waves significantly affect the nomadic population. The national rural health vision deals with the vast rural arena of India with numerous strategies, but the environmental control and lessons have not been elaborated.	

	1.10. 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.
Score explanation: while describing the health hazards of air water noise, traditional pollution of the competency CM 3.1 of the community medicine, core curriculum. The unequal health impacts of climate change where in some regions receive more rainfall while others are more exposed to frequent oughts as well as resulting impact climate change, such population living in those reasons briefly covered in 3 to 4 slides.	

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

	1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?
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.
Score explanation: the community medicine lecture briefly discuss the correlation between environmental hazards and toxins, leading to cancer of the reproductive system lectures and specific diseases like vagina and cervical Cancer covered in obstetric and gynaecology also covered briefly the topic lecture in forensic medicine. Also discuss the effect of pesticides and other toxins on women of reproductive age	

	1.12. 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.
Score explanation: the chapter, title, occupation and health discussed various non-man-made hazards and risk factor is leading to an array of diseases such as demo coniosis, asbestosis, new Palasia, access of COPD and Athma biomagnification and poisoning due to DDT and mercury were also discussed the death of aquatic animals like fishes, coral, et cetera. Due to anthropogenic environmental damage was also covered in that lecture. Fish is a part of the staple diet in the coastal state of Odisha recommendations to improve water, sanitation and hygiene to reduce the incidence of dengue, fever, and other diseases were also discussed briefly the lecture on full adult such as Paneer, egg and rice discussed how it is a threat to the surrounding communities	

	1.13. To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?
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.
Score explanation: in the lecture on integrated management of new natal and childhood illness, I am in CI home remedies were discussed for children who present with only fever and ror these remedies, a part of our Indigenous knowledge and value system such as using JP, honey and basil leaves in the first year, there are dedicated hours for the students to learn and practice Yoga Ayush Ayurvedic Yoga Uma Siddha Ho Pati is a separate field that focus separately on Ayurveda knowledge and practices. The home remedies as well as Ayush Relie heavily or the usage of plant-based substances and those are relatively environment friendly, however, details are not included in the allopathic medical curriculum.	

	1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?
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.
Score explanation: the concerned topic has been vertical integrated into the curriculum. For example, the community medicine lecture on the topic, environment and health covered the impact of anthropogenic, environmental, toxic briefly, especially indoor pollution affecting women cooking with fossil fuels, cold and wood and how it is associated with respiratory illness, was briefly discussed a chapter on tuberculosis also highlighted that the incidence of these diseases, higher in people with low social economic status and such as those living, slabs, prison, et cetera, more important to the chapter on occupational health directly deals with anthropology, environment, environmental talk and hazards related to their of, for example, pneumoconiosis due to silica and asbestos particles are secretly toxicity, cancer, dermatitis, et cetera, with immediate impact on the health of the employees and corresponding collateral damage to the entangled population, tribal health also dealt with the effects of local environmental disruption and the need for national policies to take the needed accounts. The topic disaster management clearly equator, the changing climate with the frequency of disasters fracturing the underserved population.	

Curriculum: Sustainability

	1.15. 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.
Score explanation: the health and environmental benefits of a plant based at the concept of glycaemic index is food of their role as risk factors for various diseases like diabetes and the role of high fibre, plant diet decreasing the risk of lifestyle diseases have been discussed in depth in the five lecture, dedicated for chapter of nutrition and health in the community medicine, curriculum, specific health, benefits of plant waste, diets of the prevention of colon Cancer and increased longevity along with the environmental benefits. A reduction in greenhouse gas mission discussed over the high potential of reducing carbon footprint and mitigating climate change by shifting from animal to plant based that has been discussed briefly	

	1.16. 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.
Score explanation: The SCBMCH curriculum does not address the carbon footprint of the healthcare system.	

	1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	
2	The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)	
2	The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	
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 point)	
1	Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	
1	The impact of **anaesthetic** gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	
1	The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	
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) (1 point)	
Score explanation: *Social prescribing and counselling the patients regarding over-medicalisation, over-investigation and over-treatment, and the health and environmental co-benefits thereof by avoiding the same,are taught by our mentors in our clinical rotations positions starting from the second year until the one-year mandatory internship (house surgeon year)* *In competency PH1.10 of the second-year medical school curriculum, the need to deprescribe and its environmental benefits were discussed along with the health and environmental impact of polypharmacy .* *Non-pharmaceutical management of certain conditions (such as diabetes, hypertension and obesity) and its importance were covered in detail in medicine, pharmacology, and community medicine lectures.*		

The environmental impact of surgical healthcare was discussed briefly under the topic ofbiohazard disposal in competency SU15.1 of the core surgery curriculum along with theappropriate methods of disposal of hospital waste. *Also in the second year of medical school, the pros and cons of anaesthetics for painmanagement were discussed and it included the negative impacts of anaesthetic gases on thehealthcare carbon footprint.* *In SCBMCH, sustainable clinical practice in terms of hospital waste management is adopted.Colour-coded bins with clear signage are placed at various locations throughout the medicalhospital and help the patients as well as healthcare workers to conveniently use them. In theoperating room, supervised use of gloves, apron, head cap and footwear reduces medical wasteas well.*

Curriculum: Clinical Applications

	1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?
2	Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)
1	Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 points)
0	No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)
Score explanation: In SCBMCH there has been a direct vertical integration of community medicine curriculum with general medicine under various competencies. One such competency is IM25.13 where students are asked to counsel the patient and family on the prevention of various infections due to environmental issues in a simulated environment in a DOAP (Demonstrate, Observe, Assess, Perform) session as a skill assessment. In the assessment students who are role-playing as doctors are encouraged to emphasise the link between climate change and disease when communicating with the individual who has assumed the role of the patient. Students are advised to provide a local and personal message as well as state the facts linking climate change to disease to the patient while also taking an evidence-based physician's approach.	

	1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?
2	Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)
1	Only **elective** coursework includes strategies for taking an environmental history. (1 point)
0	No, the curriculum does **not** include strategies for taking an environmental history. (0 points)

Score explanation: Lectures on clinical history taking taught us the strategies for taking environmental history as part of previous exposure. For example, Current and past exposure to metals, dust, fibres, fumes, chemicals, biological hazards, radiation etc, pesticide exposure, present and previous home location, food source(s), hazardous waste/spill exposure, drinking water supply, air pollution and many more. It has been taught that each clinical encounter does not require an extensive environmental exposure evaluation, but having environmental history information in the patient's medical records can alert the healthcare provider to potential exposure risks that may lead to adverse health effects. This was covered in subjects like Internal Medicine, Paediatrics, and Obstetrics & Gynaecology. Also, this is commonly practised during the mandatory internship year.

Curriculum: Administrative Support for Planetary Health

	1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?
4	Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)
2	Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)
0	No, there are **no** improvements to planetary health education in progress. (0 points)
Score explanation: There has been an increase in vertical integration of planetary health educationtopics into the first and second-year curricula since 2019 after the change in the MBBS curriculum by the National Medical Commission (NMC). SCBMCH has implemented the changes in the curriculum by incorporating the said topics into its lectures for first and second-year students. Furthermore, there has been an increase in the number of lectures on climate change and the organisation of activitiespromoting the idea of climate change and sustainability. In the academic year 2021-22, there occurred a significant increase in horizontal and vertical integration of planetary health education into a diverse set of lectures in subjects like community medicine and general medicine. The MBBS curriculum by NMC has been strictly implemented across all subjects. Furthermore, the Planetary Health Report Cards of 2021-22, 2022-23 and 2023-24 have helped SCBMCH in identifying major areas for further improvement of Education for Sustainable Healthcare. However, there is currently no specific module for planetary health education. Implementation of such a dedicated curriculum would cover the vast aspects of direct health impacts and the wider determinants of health.	

	1.21. 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. (6 points)
4	**Some** planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)
2	Planetary health/ESH is not integrated and is primarily addressed in **(a) standalone lecture(s).** (2 points)

0	There is **minimal/no** education for sustainable healthcare. (0 points)
Score explanation:At SCBMCH The planetary health topic are well inter space and longitudinally integrated throughout the previous curriculum. For example, the first year curriculum covers by chemistry, discusses the production of free radicals by different and genetics. Discuss effects of pollutant of DNA with violation patterns then in the second year curriculum in pulmonary health, the various environmental causes of lung cinema discussed chapter on new Palasia covers environmental polluted and the relation to Kasi Genesis within the past two years. All the lectures throughout the business curriculum have been remodelled according to the new competency based undergraduate curriculum for the Indian medical graduate introduced by the NMC, as a result of which many more topics pertaining to planetary health have been added.	

	1.22. Does your medical school employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?
1	**Yes,** the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)
0	**No**, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)
Score explanation: there is a lack of awareness about planetary health and sustainable health healthcare. There is no dedicated staff member of faculty is responsible for Overing. The integration of planetary health into the curriculum and improving campus sustainability.	

Section Total (61 out of 72)	**84.72%**

Back to Summary Page here

Interdisciplinary Research

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

	2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your institution?
3	Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)
2	Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)
1	There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)
0	No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)
Score explanation: *At SCBMCH, individual faculties have conducted research regarding health and environmental links at the community level (examples are "Population and Environment", and "Water securing and rainwater harvesting" at Community Medicine Publication – SCB Medical College & Hospital). However, this is not their primary research focus.* *The university that SCBMCH is a part of (Utkal University) has a Centre for Environment, Climate Change and Public Health. Utkal University has finally added the MPH course under its umbrella (Master of Public Heath (MPH)), which will give a boost to the healthcare-associated studies from this academic year. A seminar was conducted on Climate Change, Sustainability and Public Health by the university. Research is carried out on topics such as Gender, climate change and the politics of vulnerability; Governance challenges in addressing climate concerns in Coastal Asia and Africa; women-headed households, migration and adaptation to climate change in Mahanadi delta by Asha Hans from the department of political science.*	

	2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?
3	There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)

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. (2 points)
1	There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 points)
0	There is **no** dedicated department or institute. (0 points)

Score explanation:
Utkal University has a Centre for Environment, Climate Change and Public Health that does planetary health research.

Furthermore, The Dept. of Anthropology conducted a review analysis of indigenous tribal healthcare practices and their outcomes (flyer Post Congress WAC-2023 UTKAL). Utkal University has also now included Masters of Public Health as a new curriculum under its domain. A recent seminar was "Health for Awareness about Sustainable Developmental Goals (SDGs)" [https://www.youtube.com/watch?v=LDrKB48-TJk].

Moreover, the PG Department of Botany has carried out many interdisciplinary planetary health research projects. To name a few:

Palai Jayashree (2015). Tolerance of some roadside plants of Bhubaneswar city, Odisha against vehicular air pollution. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Prof. AnathaBandhu Das and Mr. Srinivas Acharya,P.G. Department of Botany, Utkal University.

Satyabrata Sarangi (2019). Monitoring and Characterization of Particulates of Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Srinivas Acharya, P.G. Department of Botany, Utkal University.

Subhashree Debasmita Mishra (2019). Social Impact Assessment of Air and Noise pollution at Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Srinivas Acharya, P.G. Department of Botany, Utkal University.

Alisha Munda (2021). Physico-chemical analysis of sewage systems under of Bhubaneswar Municipality Corporation, Odisha. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. Srinivas Acharya, Department of Botany, Utkal University

	2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?
3	Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)

2	Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)
1	**No**, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 points)
0	There is **no** process, and **no** efforts to create such a process. (0 points)
Score explanation:No public information is available for community participation in driving the agenda for research.	

	2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?
3	There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)
2	There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)
1	The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)
0	There is **no** website. (0 points)
Score explanation: *1. SCBMCH, the medical school, has an easy to use, adequately comprehensive website that centralises various campus resources available for all research topics across 24 specialities as well as 15 superspecialities; including the topics related to health and environment which are mainly carried out under the Community Medicine speciality, by the respective department. It also provides information about upcoming events like workshops, seminars, conferences, publications, mentors and relevant funding opportunities. However the main focus of the website is not planetary health and it misses out on key information like leaders in planetary health in our institution. Website: https://scbmch.in/research-publications/* *2. Utkal University has a website that attempts to centralise various campus resources but is not specific to health and environment and has not been updated. Website: https://utkaluniversity.ac.in/research-development/*	

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

3	Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)
2	Yes, the **institution** has hosted a conference on topics related to planetary health / sustianable healthcare/vetcare in the past three years. (2 points)
1	The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)
0	No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)
Score explanation: Examples include: https://utkaluniversity.ac.in/photo_gallery/utkal-university-conducts-a-seminar-on-climate-change-sustainability-and-public-health-17th-june-2022/, Awareness about increasing scales of heatwaves in the city of Odsiha, Observing World Environment Day and World Health Day (News & Events Archive). *The PG Department of Botany of the Utkal University has hosted an International webinar on Aeroallergen, Particulate matter leading to respiratory ailments, designing devices for the preventive measures on 22nd of December, 2021.* *A National Seminar on Climate Change was also hosted by the PG Department of Zoology. Also awareness activities, plantation activities, and cleanliness drives are being carried out regularly. For example, on 4th Jan 2023 a cleanliness and plantation drive based on the theme "Clean SCB, Green SCB" was conducted.*	

	2.6. Is your institution a member of a national or international planetary health or ESH/ESV organisation?
1	Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 points)
0	No, the institution is **not** a member of such an organisation. (0 points)
Score explanation: No , the Medical School is not a member of such an organisation.	

Section Total (9 out of 17)	**52.94%**

Back to Summary Page here

Community Outreach and Advocacy

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

	3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?
3	Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)
2	Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)
1	The **institution** does not partner with community organisations, but has participating in community focused events relating to planetary health. (1 point)
0	No, there is **no** such meaningful community partnership. (0 points)
Score explanation: No such meaningful partnership exists between SCBMCH and the community.	

	3.2. Does your <u>institution</u> offer community-facing courses or events regarding planetary health?
3	The **institution** offers community-facing courses or events at least once every year. (3 points)
2	The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)
1	The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)
0	The **institution/medical school** have not offered such community-facing courses or events. (0 points)
Score explanation: Events such as plantation drives, cleanliness drives, donate a tree initiative and such Bharat abhiyan activities are carried out at SCBMCH annually . For example, a community facing cleanliness and plantation drive on the theme " Clean (SCB) green (SCB)" was conducted	

by the Junior Doctor Association starting from the Dean Office Ground. Renowned Odia actor Sabyasachi Mishra joined us in this novel initiative along with several other people.

	3.3. Does your <u>institution</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. (2 points)
1	Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)
0	Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)
Score explanation: The medical school does not provide students with regular coverage of issues related to planetary health or sustainable healthcare.	

	3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?
2	Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)
1	Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate provider. (1 point)
0	There are **no** such accessible courses for post-graduate providers. (0 points)
Score explanation: No such courses for post-graduates are available at Utkal University	

	3.5. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?
2	Yes, the **medical school** or **<u>all</u> affiliated hospitals** have accessible educational materials for patients. (2 points)
1	**Some** affiliated hospitals have accessible educational materials for patients. (1 point)
0	**No** affiliated medical centres have accessible educational materials for patients. (0 points)
Score explanation: No information and accessible material are available for the patient.	

	3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?
2	Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)
1	**Some** affiliated hospitals have accessible educational materials for patients. (1 point)
0	**No** affiliated hospitals have accessible educational materials for patients. (0 points)
Score explanation: No information and accessible material are available for the patient.	

Section Total (3 out of 14)	**21.43%**

Back to Summary Page here

Support for Student-Led Planetary Health Initiatives

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

	4.1. Does your institution offer support for students interested in enacting a sustainability initiative/QI project?
2	Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)
1	The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point)
0	No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)

Score explanation: The institution, Utkal University in Odisha, has a dedicated wing for environmental science, with yearly admission into masters/post-graduation courses under it. It is also a centre of excellence (CoE) for environment, climate change and public health.

It has numerous publications (eg: Impact of Climate Change On Human Health Concerning Climate-induced Natural Disaster: Evidence From an Eastern Indian State. https://go.gale.com/ps/i.do?p=AONE&u=anon~73005c71&id=GALE|A763094686&v=2.1&it=r&sid=sitemap&asid=8611268a),

numerous research projects (eg: Quantifying Impacts of South Asian Aerosols on Regional and Arctic Climate (QUISARC)/2018-2020, with a grant of Rs. 79 lakhs for this project from Ministry of Earth Sciences, Government of India.),

and numerous seminars/conferences/webinars (eg:International webinar on "Aeroallergen, Particulate Matter 2.5 Leading To Respiratory Ailments, Designing Devices For The Preventive Measures" 22nd December 2021). [Source: utkaluniversity.ac.in].

Currently there are 2 ongoing research projects on the topic of Planetary Health that are being carried out Medical Students of SCBMCH.

However there is a lack of adequate resources and funds directly for medical students, although multidisciplinary research is possible.

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

2	The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)
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. (1 point)
0	There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)
Score explanation: There are various opportunities for research at an undergraduate level at our medical School. The ICMR STS (Short term student program)is an ICMR (Indian Council of medical research) funded program that provides up to 25,000 per month for two months as stipend to encourage undergraduate students to take research as a career in future. The recently launched a UG research incubator in SCBMCH , first of its kind in any medical College has made taking part in research for UG Students simple and easy by reducing the hassle to get approvals , funds, etc.	

	4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.
2	The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)
1	There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information. (1 point)
0	There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)
Score explanation: SCBMCH has a web page ; https://scbmch.in/research-publications/ that features some information about the projects about sustainable healthcare which have been approved and underway. However, the webpage is not specific for planetary health related projects and the information provided is not sufficient.	

	4.4. Does your institution 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 organisation **with faculty support** at my medical school dedicated to planetary health or sustainability in healthcare. (2 points)
1	Yes, there is a student organisation at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)

0	No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)
Score explanation: No such student organisation is dedicated to planetary health engagement, but the Student Services Guild (student council) is responsible for making such decisions or initiatives.	

	4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?
1	Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)
0	No, there is no such student representative. (0 points)
Score explanation: Students Services Guild (Student council) is responsible for making such decisions or initiative, depending on the interest of the council members.	

	4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	
1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	
1	Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	
Score explanation: Programmes organised for "Environment Day" and "Earth Day" included speakers on planetary health topics. Planetary health was integrated into various activities including debates, extempore , speech and poster design. Students also had the opportunity to volunteer for plantation and cleanliness drives. Awareness about Sustainable Development Goals, (SDG) was done with the aim of creating an awareness under Utkal University.  *A Seminar Took Place In Utkal University To Let Students Know About Sustainable Develop…*		

Section Total (7 out of 15)	%

Back to Summary Page here

Campus Sustainability

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

	5.1. Does your institution have an Office of Sustainability?
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. (3 points)
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 hospital sustainability. (2 points)
1	There are **no salaried sustainability staff,** but there is a sustainability task force or committee. (1 point)
0	There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)
Score explanation: No staff member or task force exists to oversee campus sustainability at SCBMCH	

	5.2. How ambitious is your institution's plan to reduce its own carbon footprint?
5	The institution has a **written and approved plan** to achieve carbon neutrality by **2030** (5 points)
3	The institution has a **written and approved plan** to achieve carbon neutrality by **2040** (3 points)
1	The institution has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate** (1 point)
0	The institution/medical school does **not** meet any of the requirements listed above (0 points)
Score explanation: SCMCH does not have a stated goal for the reduction of CO2 emissions	

	5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?
3	Yes institution buildings are **100%** powered by renewable energy. (3 points)
2	Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)
1	Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)
0	Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)
Score explanation: Current infrastructure innovation includes the installation of a solar photovoltaic system with a capacity of 15 KWP on site to reduce the energy demand from nonrenewable energy sources	

	5.4. Are sustainable building practices utilised for new and old buildings on the institution's campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?
3	Yes, sustainable building practices are utilised for new buildings on the intitution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)
2	Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)
1	Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)
0	Sustainability is **not considered** in the construction of new buildings. (0 points)
Score explanation: In structural and non-structural applications, for both concrete and masonry work minimum of 30% of cement is replaced with fly ash. All paints and adhesives used in the project have low volatile organic compounds (VOCs) content. The insulation, refrigerant, and fire fighting system used in the building have no components with ozone depletion potential. *The majority of the old building have been or are currently being renovated. Such as replacing old, high- energy-consuming fluorescent bulbs with newer, low-energy-consuming LED bulbs and whitewashing buildings to reflect sunlight which would make the buildings naturally cooler*	

	5.5. Has the institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?
2	Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public

	transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)
1	The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)
0	The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)
Score explanation: SCBMCH has battery-operated vehicles for transporting patients within the campus. However, strategies to encourage and provide environmentally-friendly transportation options for students have not been implemented.	

	5.6. Does your institution have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?
2	Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)
1	The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)
0	There is **no** compost or recycling program at the medical school. (0 points)
Score explanation: There is an established biomedical waste management system which includes different bodies that are responsible for collecting and recycling waste (conventional recycling program). Coloured coded dustbins are available for the segregation of different types of waste in hospitals but not in academic blocks or hostels.	

	5.7. Does the institution 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 institution has a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability. (3 points)
2	There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution **is engaged** in efforts to increase food and beverage sustainability. (2 points)
1	There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The institution is **not** engaged in efforts to increase food and beverage sustainability. (1 point)
0	There are **no** sustainability guidelines for food and beverages. (0 points)

Score explanation: NO sustainability guidance for food and beverages exist at SCBMCH

	5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?
3	Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)
2	There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)
1	There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)
0	There are **no** sustainability guidelines for supply procurement. (0 points)
Score explanation: There are no publicly available sustainability guidelines for supply procurement. However, those tenders are prioritised which have better cost efficiency, and sustainability promises.	

	5.9. Are there sustainability requirements or guidelines for events hosted at the institution?
2	Every event hosted at the institution **must** abide by sustainability criteria. (2 points)
1	The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required.** (1 point)
0	There are **no** sustainability guidelines for institution events. (0 points)
Score explanation: There are no sustainability guidelines for medical school events	

	5.10. Does your institution have programs and initiatives to assist with making lab spaces more environmentally sustainable?
2	Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)
1	There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)
0	There are **no** efforts at theinstitution to make lab spaces more sustainable. (0 points)

Score explanation: Provisions of recyclable and reusable instruments are being done via the medical school and the government. Increasing awareness of biomedical waste management guidelines via training sessions

	5.11. Does your institution's 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. (4 points)
3	The institution is **entirely divested** from fossil fuels. (3 points)
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. (2 points)
1	The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)
0	Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)
Score explanation: In India , for Government medical colleges, the financial investment portfolios are not easily accessible and we were not able to find any public information about this. We might need to file right to information to understand this, but this is beyond our capacity right now . The only information that could be obtained was that the school website is supported by private bank as a part of their corporate social responsibilities and articles have been found linking the bank with fossil fuel financing and infrastructure projects. As none of the options deemed fit, we have decided to give it a score of zero.	

Section Total (7 out of 32)	**21.88%**

Back to Summary Page here

Grading

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

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

**Within each grade bracket, a score in the top 5% (_5 to_9%), receives a "+", and a score in the bottom 5% (_0-_4%) receives a "--". For example, a percentage score of 78% would be a B+.*

Planetary Health Grades for the Srirama Chandra Bhanja Medical College and Hospital (SCBMCH)
The following table presents the individual section grades and overall institutional grade for the Srirama Chandra Bhanja Medical College and Hospital on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(61/72) x 100 = 84.72%	A-
Interdisciplinary Research (17.5%)	(9/17) x 100 = 52.94%	C
Community Outreach and Advocacy (17.5%)	(3/14) x 100 = 21.43%	D-
Support for Student-led Planetary Health Initiatives (17.5%)	(7/15) x 100= 46.67%	C
Campus Sustainability (17.5%)	(7/32) x 100 = 21.88%	D-
Institutional Grade	**50.43%**	**C**

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which Sriram Chandra Bhanja Medical College and Hospital has participated in the Planetary Health Report Card initiative.