

## Planetary Health Report Card (Dentistry)

## Vokkaligara Sangha Dental College and Hospital



#### 2023-2024 Contributing Team:

- Students Name: Aamina Tasneem, Jahnavi MS, Shruthi Baskar, Shehzadi Afreen, Simoni Kalyani, Zaid Addin Shariff , Poorvi M
- Faculty Lead: Dr. Sushi Kadanakuppe; Faculty Mentors: Dr. Suma N. K, Mrs. Savitha
- Primary Contact: Aamina Tasneem, tasneemaamina2000@yahoo.com

#### **Summary of Findings**

Overall	
<u>Curriculum</u>	F

- Vokkaligara Sangha Dental College and Hospital includes environment and health in the curriculum vaguely. It addresses environmental pollution and its impact on humankind briefly in the 3rd and 4th year curriculum. Insight into planetary health is achieved through the lecture series conducted by the Planetary Health Student Club (PHSC) of the college.
- **Recommendation**: Introducing planetary health and its impact on both humankind and biodiversity from the 1st year would be beneficial. Encouraging students to develop better understanding of how planetary health and oral intervention are connected would be helpful to both students and patients.

#### **Interdisciplinary Research**

**D** -

- We have individual faculty members at college who are conducting research related to planetary health and healthcare sustainability, but it is not their primary research focus. Vokkaligara Sangha Dental College and Hospital has not hosted any conferences or symposiums related to planetary health and sustainability.
- **Recommendations**: Vokkaligara Sangha Dental College and Hospital could organise a conference or a symposium directly related to Planetary Health. The college could also join the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education.

#### **Community Outreach and Advocacy**

F -

- Vokkaligara Sangha Dental College and Hospital has no community outreach relating to planetary health.
- **Recommendations**: Vokkaligara Sangha Dental College and Hospital can take up the initiative for community partnerships relating to planetary health and sustainability in oral healthcare through the existing Department of Public Health Dentistry.

#### **Support for Student-Led Initiatives**

D

- Vokkaligara Sangha Dental College and Hospital has a student group called the Planetary Health Student Club, though not registered, with faculty support which is conducting awareness programs and lecture series about various aspects of planetary health.
- **Recommendations**: Support for student-led initiatives mostly comes from the dental school. We recommend that the school will provide specific research programs/fellowships for students regarding planetary health and also prioritise grants for related research.

#### **Campus Sustainability**

F -

- Vokkaligara Sangha Dental College and Hospital does not have any strategies put forward by the institution for campus sustainability. However, the Planetary Health Student Club of our college has given Sustainability Guidelines for college meetings and events which are strongly recommended but not mandatory.
- **Recommendations**: There is much to improve with regards to campus sustainability in relation to transportation, recycling programs, sustainable lab spaces as well as reducing carbon footprint.

#### **Statement of Purpose**

Planetary health is human health.

The Planetary Health Report Card is a metric-based institutional advocacy tool created by The Planetary Health Alliance (https://phreportcard.org/about/) for evaluating and improving planetary health content in health professional schools. Further detailed information can be obtained directly from The Planetary Health Report Card Initiative, that includes the annual summary reports from participating institutions across the world (https://phreportcard.org/).

The Planetary Health Alliance describes planetary health as "a field focused on characterizing the human health impacts of human-caused disruptions of Earth's natural systems." This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, 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. There is a growing concern among health officials and policymakers about the impact of declining planetary health on oral health. Climate change is not only detrimental to the physiology of patients, but the effects are also likely to impact the operations and effectiveness of oral health services. Although the World Health Organization has called climate change "the greatest threat to global health in the 21st century," many dental schools' institutional priorities do not reflect the urgency of this danger to human health, including oral health.

As future oral health professionals, we must be prepared to address the impacts of human-caused environmental changes on our patients' general and oral health. This preparation is in the hands of the institutions providing our dental training. It is imperative that we hold our institutions accountable for educating dental students about the general and oral 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 dental 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 these issues are inherently ones of equity and justice.

The Planetary Health Report Card (PHRC) seeks to increase planetary health awareness and accountability among health professional schools. The PHRC is tailored to different healthcare professionals: Medicine, Dentistry, Nursing, Pharmacy and Physiotherapy. This dental-student-driven PHRC initiative aims to audit the current status of planetary health awareness and compare dental schools nationally and internationally on the basis of discrete metrics in five main category areas:

- 1) Planetary health curriculum
- 2) Interdisciplinary research
- 3) Community outreach and advocacy
- 4) Support for student-led planetary health initiatives
- 5) Campus sustainability

At each participating institution, student-led, faculty-mentored teams fill out the report card, identifying opportunities for improvement and reaching out to relevant staff and faculty along the way. Results are published in an annual Earth Day report, which helps track institutional change over time.

#### **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 dental school oral healthcare 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.
- 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. Consensus-agreed learning outcomes and methods of teaching and assessment have been published at a European level (Field et al. 2023). These have been incorporated into the Graduating European Dentist curriculum framework. Learning outcomes for Environmental Sustainability in Dentistry (ESD) have also been proposed by Joury et al. (2021) based on a review of the literature and adaptation of current learning outcomes in medical education:
  - 1. Describe concepts and definitions of climate change, carbon footprint and sustainability
  - 2. Discuss the importance of environmental sustainability for the health of patients
  - 3. Discuss the carbon hotspots of dentistry and how these can be modified
  - 4. Evaluate the overall environmental impact of clinical dentistry and how this can be improved through innovation.
  - 5. Appraise how future healthcare professionals can help shape a sustainable healthcare system, and the knowledge and skills (such as leadership), change management and co-production that they will require.
  - 6. Evaluate current literature and participate in research on sustainability in dentistry.
- **Dental School/College vs. University:** The term 'dental school/college' in the PHRC refers to the unit within an institution (University) that is responsible for the delivery of dental and allied oral healthcare curricula and programmes. In contrast, the term 'institution' in the PHRC refers to the University as the central organisation to which the Dental School/College belongs to. Any resource reasonably accessible by dental students, no matter where in the university the resource comes from or if it is specifically targeted for dental students, can

meet this metric.

- **Elective:** The term 'elective' refers to an optional course, lecture series, intercalated work experience or similar that a dental student may elect to participate in. This can be either a part of the core curriculum or an intercalated period of 'work/academic experience'. The significance of the term 'elective' may refer to either the choice of taking this additional course/study period or to the choice of the content, or both.
- Outreach: Also known under the terms of Clerkship (USA), internships or vocational education. 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. Students are placed in selected clinical practice settings that are geographically distant from the university's main dental school/college or dental hospital (Davies *et al.* 2023). The purpose of an outreach programme is to provide the undergraduate dental students with a broader practice-based experience of oral healthcare provision. On occasion, outreach practices may focus on serving the needs of specific groups of patients.

#### Other considerations:

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

#### **Instructions for Completion of the PHRC**

This tool is composed of five categories, all with a similar question-and-answer style. Responders should answer each question as accurately as possible and provide justification for each score. In order to answer the questions accurately, it is anticipated that responders will need to seek input from students of different cohorts.

Each question should be answered by selecting one option from the list of four presented. These options are phrased in the appropriate context with the inclusion of the terms 'In-depth, Moderately, Briefly and Not covered'. These terms are defined as follows:

**In-depth:** A thorough understanding of the subject is achieved. Most of the suggested syllabus points and/or related topics are covered. The subject topics are covered in detail and in a meaningful and objective manner providing a comprehensive subject understanding. This may include a subject-specific module with substantial credits or incorporation of the subject in the existing curriculum at all levels and years of programmes. The subject topics are made relevant by being subject-specific (Example: The impact of service provision and patient carbon footprint is made relevant to the student by discussion as part of the 'Dental Public Health' core syllabus)

**Moderately**: A limited understanding of the subject is achieved. Some of the suggested syllabus points and/or related topics are covered. The subject topics are <u>not covered in detail</u> and a superficial subject understanding is achieved. The subject topics are covered only once at a particular point in time in the undergraduate course. There is little evidence of subject integration into the actual dental curricula.

**Briefly**: A very superficial understanding of the subject is achieved. Most of the suggested syllabus points and/or related topics are <u>not</u> covered. The topics are <u>not</u> covered in detail and a poor subject understanding is achieved. The subject topics are covered only once at a particular point in time in the undergraduate course. There is no subject integration into the existing dental curricula

**Not Covered:** The subject is not part of the curriculum and is not covered anywhere nor in any form.

Each question/answer is followed by a short content outline of the topic areas that could be covered in the subject explored. These 'content outlines' aim to aid the responder in reaching an accurate answer and are not restrictive.

In all categories, the questions seek to obtain understanding of the content and depth of the learning and teaching provided for each of the topics explored. The curriculum content may be delivered in any form of learning and teaching format. The learning and teaching formats may be in formal lectures, course handbooks, tutorials, group discussions, invited speakers, on-line resources...etc. The actual format chosen by the dental school/college for the delivery of the content is not considered to be important, so long as it achieves the desired learning objectives/outcomes. All learning approaches are considered valid and desirable as they work in a complementary and synergistic manner.

How to answer the questions?

- 1. The responder should firstly carefully read the principal stem question
- 2. Now read the brief 'content outline' that is contained within the question and consider how your dental school/college maps against these criteria
- 3. Consult with other students or academic staff as required\*
- 4. Select an answer that best captures the experience in your dental school/college
- 5. Add a brief justification for the selected answer

\*It is anticipated that the respondent students may not have the required local insight to answer some of the questions that have a management/administrative component. Prior to responding, it is important that help is sought from the appropriate academic staff to gain the required information. This may be particularly especially the case for the sections: Community outreach and advocacy, Support for student-led planetary health initiatives and Campus sustainability

#### **Planetary Health Curriculum**

Section Overview: This section evaluates the integration of relevant planetary health topics into the dental school curriculum. Today's dental students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that dental students are trained to understand the general and oral 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 as applicable to oral health must be part of every dental school's core curriculum.

Focusing on the curriculum that is delivered by the Dental School/College of your university, rate how the following topics have been addressed? You should consider depth of content and opportunities for further self-directed learning.

#### Curriculum: Environmental threats to Planet Earth

1.1.	1.1. Climate change and its impacts on humankind and biodiversity	
3	This subject was addressed in depth by the core curriculum.	
2	This subject was moderately addressed in the core curriculum.	
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).	
0	This subject was not covered.	

*Score explanation:* This subject was briefly discussed as a part of a lecture series conducted by the Planetary Health Student Club of our institute titled, 'Orchids and Ecosystem' by Dr. Chandan.G.D. The aim of the lecture was to address climate change and its effects on the collective well being of humankind, biodiversity and role of orchids.

Students were further encouraged to read more articles and obtain improved insights regarding the same.

1.2.	1.2. Pollution and its impacts on humankind and biodiversity	
3	This subject was addressed in depth by the core curriculum.	
2	This subject was moderately addressed in the core curriculum.	
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).	
0	This subject was not covered.	

*Score explanation:* This topic was briefly discussed as a part of our Public Health Dentistry curriculum in the chapter entitled, 'Environmental Health'.

The chapter focused more on how the impacts of various pollution deteriorates human health in general and dealt with ways to dispose of waste.

1.3.	1.3. The impact of climate change and pollution on human health	
3	This subject was addressed in depth by the core curriculum.	
2	This subject was moderately addressed in the core curriculum.	
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).	
0	This subject was not covered.	
Scor	Score explanation: This subject has not been addressed in our curriculum.	

1.4. Environmental citizenship, the impact of human choices and current and emerging environmental actions	
3	This subject was addressed in depth by the core curriculum.
2	This subject was moderately addressed in the core curriculum.
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0	This subject was not covered.
Score explanation: This subject has not been addressed in our curriculum.	

#### Curriculum: Environmental Impact of Healthcare

1.5. The environmental impact of the health sector	
3	This subject was addressed in depth by the core curriculum.
2	This subject was moderately addressed in the core curriculum.
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0	This subject was not covered.

*Score explanation:* This topic was discussed briefly as a part of Lecture Series 2 conducted by the Planetary Health Student Club of our institute titled, 'Biomedical Waste Management and Climate Change by Dr. Sowmya Praveen.

The aim of the lecture was to address the need to manage biomedical waste in an appropriate manner and how its mismanagement could lead to potential hazards to human health and climate change. Students have been instructed to discard the waste in appropriate colour coded bins to minimise its ill-effects on humankind and environment.

1.6.	1.6. The environmental impact of <u>oral</u> healthcare provision	
3	This subject was addressed in depth by the core curriculum.	
2	This subject was moderately addressed in the core curriculum.	
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).	
0	This subject was not covered.	

Score explanation: This subject has not been addressed in our curriculum.

1.7. The environmental impact of different oral healthcare interventions	
3	This subject was addressed in depth by the core curriculum.
2	This subject was moderately addressed in the core curriculum.
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0	This subject was not covered.

*Score explanation:* The hazards of mercury used in Silver Amalgam restorative material, and its toxic effects on biodiversity have been briefly discussed as a part of the curriculum in the subject of Conservative Dentistry and Endodontics. The enivornmental impact of no other oral healthcare interventions have been taught about.

1.8.	1.8. Measuring the impact that oral healthcare has on the environment	
3	This subject was addressed in depth by the core curriculum.	
2	This subject was moderately addressed in the core curriculum.	
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).	
0	This subject was not covered.	
Score explanation: This subject has not been addressed in our curriculum.		

#### Curriculum: Sustainability in Oral Healthcare

1.9 The concept of environmental sustainability	
3	This subject was addressed in depth by the core curriculum.
2	This subject was moderately addressed in the core curriculum.
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0	This subject was not covered.
Come and an ation. The compone of Environmental Systemability is not covered in come symioulum or	

*Score explanation:* The concept of Environmental Sustainability is not covered in core curriculum or any other learning experiences.

1.10	1.10. The concept of sustainable healthcare	
3	This subject was addressed in depth by the core curriculum.	
2	This subject was moderately addressed in the core curriculum.	
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).	
0	This subject was not covered.	
Score explanation: The concept of sustainable health is not covered in the curriculum.		

1.11. The concept of sustainable oral healthcare
 This subject was addressed in depth by the core curriculum.
 This subject was moderately addressed in the core curriculum.
 This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
 This subject was not covered.
 Score explanation: The concept of sustainable oral healthcare has not been covered in our curriculum.

#### Curriculum: Sustainability through Good Oral Healthcare

1.12. The importance of good oral health for delivering sustainable oral healthcare	
3	This subject was addressed in depth by the core curriculum.
2	This subject was moderately addressed in the core curriculum.
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0	This subject was not covered.

*Score explanation:* We have been taught that maintaining good oral hygiene can prevent numerous diseases, and we strive to adhere to the principle that prevention is better than cure. But its connection with sustainability is not covered.

1.13. The role of oral disease prevention for the delivery of sustainable oral healthcare	
3	This subject was addressed in depth by the core curriculum.
2	This subject was moderately addressed in the core curriculum.
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0	This subject was not covered.
Score explanation: This subject has not been addressed in our curriculum.	

1.14. Does your dental school 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 subject was addressed in depth by the core curriculum.
2 This subject was moderately addressed in the core curriculum.
1 This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0 This subject was not covered.
Score explanation: This subject has not been addressed in our curriculum.

1.15. The role of integrated oral care in delivering sustainable oral healthcare	
3	This subject was addressed in depth by the core curriculum.
2	This subject was moderately addressed in the core curriculum.
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0	This subject was not covered.
Score avalanation: This subject has not been addressed in our curriculum	

Score explanation: This subject has not been addressed in our curriculum.

1.16.	1.16. The role of ownership of care in delivering sustainable oral healthcare	
3	This subject was addressed in depth by the core curriculum.	
2	This subject was moderately addressed in the core curriculum.	
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).	
0	This subject was not covered.	
Score explanation: This subject has not been addressed in our curriculum.		

#### Curriculum: Making Sustainability Work

1.17. The role of the dental team in the provision of sustainable oral healthcare	
3	This subject was addressed in depth by the core curriculum.
2	This subject was moderately addressed in the core curriculum.
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0	This subject was not covered.

*Score explanation:* The curriculum briefly covers the role of antibiotics and antibiotic resistance and its impact on human health. It doesn't include the impact on the environment and sustainable health care.

### 1.18. Embedding environmental sustainability into patient care in clinical teaching spaces This subject was addressed in depth by the core curriculum.

2	This subject was moderately addressed in the core curriculum.
1	This subject was briefly addressed in core curriculum or other learning experiences (e.g. elective coursework).
0	This subject was not covered.
Score explanation: This subject has not been addressed in our curriculum	

Section Total (5 out of 54)	
-----------------------------	--

Back to Summary Page <u>here</u>

#### **Interdisciplinary Research**

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

Consider how your dental school/college performs with regards to the research statements below.

This symbol at the beginning of a question - \(\bigcap\) - means that the question is unique to dentistry. The other questions in this section and those below are aligned to the medicine PHRC so please do collaborate if there is a medicine team at your institution completing the PHRC too!

# 2.1. Are there researchers engaged in Environmental Sustainability in Oral Healthcare research at your dental school? Yes, there are faculty members at the School of Dentistry who have a primary research focus in planetary health or healthcare sustainability. Yes, there are individual faculty members at the School of Dentistry who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus. There are planetary health and/or healthcare sustainability researchers at the university, but none associated with the dental school. No, there are no planetary health and/or healthcare sustainability researchers at the institution or dental school at this time.

Score explanation: There are individual faculty members at our College who are conducting research related to planetary health. The team of two researchers (Dr. Sushi Kadanakuppe, Dr. Suma N. K) in collaboration with a faculty from KLE Institute of Dental Sciences (Dr. Arya Bharadwaj - alumna VSDCH) are conducting a study to explore the perceptions of dental students about environmental sustainability, climate change and human health and their attitudes towards inclusions of these concepts in dental curriculum.

## 2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution? There is at least one dedicated department or institute for interdisciplinary planetary health research. 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. There is an Occupational and Environmental Health department, but no interdisciplinary department or institute for planetary health research.

#### 0 There is **no** dedicated department or institute.

*Score explanation:* There is no dedicated department or institute for interdisciplinary planetary health research at our institution.

# 2.3. Environmental Sustainability of the Research Laboratories of the Dental School/College Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda. Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda. No, but there are current efforts to establish a process for community members to advise or make decisions on the research agenda. There is no process, and no efforts to create such a process.

Score explanation: There is no such process in the Research Laboratories of our institution.

# 2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment? There is an easy-to-use, adequately comprehensive website that centralises various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. 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. The institution has an Office of Sustainability website that includes some resources related to health and the environment. There is no website.

*Score explanation:* We have an official website of the <u>Planetary Health Student Club (PHSC)</u>, which is a part of our main college website, where events and activities related to Planetary health and environment are mentioned.

2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?	
4	Yes, the <b>dental school</b> has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the <b>institution</b> has hosted at least one conference or symposium on topics related to planetary health in the past year.

2	Yes, the <b>institution</b> has hosted a conference on topics related to planetary health in the past three years.
1	The <b>institution</b> has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the <b>institution</b> has not hosted a conference on topics related to planetary health in the past three years.

*Score explanation:* Our Institution has not hosted any conference or symposium on topics related to planetary health.

#### 2.6. Is your <u>dental school</u> active in national or international planetary health/environmental sustainability organisations or working groups within wider organisations?

- Yes, the dental school is active in national or international planetary health/ESH/ESD organisations or planetary health/ESH/ESD working groups within wider organisations
- 0 No, the dental school is not active in such organizations

Score explanation: Our college faculty Dr. Sushi Kadanakuppe is part of the faculty team of a national level training program/workshop on 'Climate Change and Health' for healthcare professionals conducted by The Divecha Centre for Climate Change, at the Indian Institute of Science, Bangalore. This is a biannual training program conducted at national level where Dr. Sushi presents a lecture on 'Oral Health in a Changing Climate' and trains the delegates during the workshop activities.

Section Total (4 out of 17)	D -
-----------------------------	-----

Back to Summary Page here

#### **Community Outreach and Advocacy**

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

Consider how your dental school/college performs with regards to the community outreach and advocacy statements below.

# 3.1. Public engagement and participation with the dental school/college through community outreach and advocacy programmes There is a strong, active and impactful public engagement with the Dental School/College in environmental oral healthcare There is moderate public engagement with the Dental School/College in environmental oral healthcare There is minimal public engagement with the Dental School/College in environmental oral healthcare There is no public engagement with the Dental School/College in environmental oral healthcare Score explanation: There is no public engagement and participation with the Dental College through

3.2. Dental school/college engagement and participation in the promotion of postgraduate professional development in environmentally sustainable oral healthcare

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.

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

There are no such accessible courses for post-graduate providers

Score explanation: There are no such courses for post - graduate professional development in

community outreach and advocacy.

environmentally sustainable oral healthcare.

3.3. Does your <u>dental school</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
2	Yes, all students <b>regularly</b> receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are <b>sometimes</b> included in communication updates.
0	Students <b>do not</b> receive communications about planetary health or sustainable healthcare.

*Score explanation:* Our Dental College does not have regular coverage of issues related to planetary health and sustainable healthcare in university update communications.

## 3.4. Dental school/college provision of educational resources for patients for the promotion of environmentally sustainable oral healthcare The dental school or dental hospital provide resources for patients on Environmentally Sustainable Oral Healthcare There are no resources for patients on Environmentally Sustainable Oral Healthcare Score explanation: Our Dental College and Hospital does not provide resources for patients on

Section Total (0 out of 8) F-

Back to Summary Page here

environmentally sustainable oral healthcare.

#### **Support for Student-Led Planetary Health Initiatives**

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

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

*Score explanation :* Our institution does not offer support for dental students interested in enacting a sustainability initiative/QI project.

4.2. Does your <u>institution</u> offer opportunities for dental students to do research related to planetary health and/or environmental sustainability?	
2	The <b>institution</b> has a <b>specific</b> research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these <b>require student initiative</b> to seek these out and carry them out in their spare time.
0	There are <b>no opportunities</b> for students to engage in planetary health/sustainable healthcare research.

*Score explanation:* Our institution does not offer opportunities for dental students to do research related to planetary health and/or environmental sustainability.

4.3. Does the <u>dental school</u> have a webpage where dental students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the dental school? For example, projects achieved, current initiatives underway at the dental school and/or contact of information of potential mentors.

The <b>dental school</b> has a web page with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and continformation of potential mentors.		
1	There is a <b>dental school</b> webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the dental school, but it lacks key information	
0	There is <b>no dental-school</b> specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.	

*Score explanation:* We have an official website of the <u>Planetary Health Student Club (PHSC)</u>, which is a part of our main college website, where events and activities related to Planetary health and environment are mentioned.

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

- Yes, there is a student organisation **with faculty support** at my dental school dedicated to planetary health or sustainability in healthcare.
- Yes, there is a student organisation at my dental school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.**
- No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare.

*Score explanation:* There is a student organisation, the <u>Planetary Health Student Club (PHSC)</u> with faculty support at our dental college dedicated to planetary health, but it is not registered.

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

- Yes, there is a student representative that serves on a dental school or institutional decision-making council/committee.
- 0 No, there is no such student representative.

Score explanation: There is no such student representative.

Section Total (3 out of 9)	D
----------------------------	---

Back to Summary Page here

#### **Campus Sustainability**

Section Overview: This section evaluates the support and engagement in sustainability initiatives by the dental school and/or institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive 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 dental 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 dental school and/or institution have an Office of Sustainability?		
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is <b>at least one designated staff member</b> for sustainability at the hospital and/or dental school.	
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but <b>no specific staff member</b> in charge of dental school and/or hospital sustainability.	
1	There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee	
0	There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability	
Score explanation: There are no staff members or task force for overseeing campus sustainability in our institution.		

5.2. How ambitious is your <u>institution/dental school</u> plan to reduce its own carbon footprint?		
5	The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b> and the dental school has a well-defined and adequate plan in place to achieve this goal	
3	Yes, there is a <b>written and approved plan</b> to achieve carbon neutrality by at least <b>2040</b> and the dental school has a well-defined and adequate plan in place to achieve this goal.	
1	The institution/dental school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate	
0	The institution/dental school does <b>not</b> meet any of the requirements listed above	
Score explanation: Our institution does not meet any of the criterias listed.		

#### 5.3. Institutional (University/Dental School) implementation of Environmental Sustainability strategies

3	There is strong, active and ambitious strategy for the promotion and implementation of Environmental Sustainability across all domains	
2	There is moderate strategy for the promotion and implementation of Environmental Sustainability across all domains	
1	There is minimal strategy for the promotion and implementation of Environmental Sustainability across all domains	
0	There is no strategy for the promotion and implementation of Environmental Sustainability across all domains	

*Score explanation:* There are no strategies for implementation of Environmental Sustainability across all domains.

### 5.4. Has the <u>dental school</u> or <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?

- Yes, the dental school or 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.

  The dental school or institution has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible
- The dental school or institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options.

*Score explanation:* Our dental college has not implemented any strategies to encourage and provide environmentally-friendly transportation options.

#### 5.5. Does your <u>dental school</u> have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?

- Yes, the dental school has **both** compost **and** recycling programs accessible to students and faculty.
- The dental school has **either** recycling **or** compost programs accessible to students and faculty, but not both.
- 0 There is **no** compost or recycling program at the dental school.

or advertised.

Score explanation: Our dental college does not have any organics recycling or conventional recycling program.

#### 5.6. Does the <u>dental school</u> or <u>institution</u> apply sustainability criteria when making decisions

about supply procurement?		
uate sustainability requirements for supply procurement and is ustainability of procurement.		
nes for supply procurement, but they are <b>insufficient or optional.</b> efforts to increase sustainability of procurement.		
nes for supply procurement, but they are <b>insufficient or optional. d</b> in efforts to increase sustainability of procurement.		
elines for supply procurement.		
1		

Score explanation: There are no sustainability guidelines for supply procurement in our College.

## 5.7. Are there sustainability requirements or guidelines for events hosted at the dental school? Every event hosted at the dental school must abide by sustainability criteria. The dental school strongly recommends or incentivizes sustainability measures, but they are not required. There are no sustainability guidelines for dental school events.

*Score explanation:* Planetary Health Student Club of our college has given <u>Sustainability Guidelines</u> for college meetings and events. Our dental college strongly recommends sustainability measures, but they are not mandatory.

## 5.8. Does your dental school have programs and initiatives to assist with making lab spaces more environmentally sustainable? Yes, the dental school has programs and initiatives to assist with making lab spaces more environmentally sustainable. There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives. There are no efforts at the dental school to make lab spaces more sustainable.

*Score explanation:* Our dental school does not have programs and initiatives to assist with making lab spaces more environmentally sustainable.

Section Total (1 out of 22)	F -
-----------------------------	-----

#### **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%	
В	60% - 79%	
С	40% - 59%	
D	20% - 39%	
F	0% - 19%	

<sup>\*</sup>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 Vokkaligara Sangha Dental College and Hospital

The following table presents the individual section grades and overall institutional grade for the Vokkaligara Sangha Dental College and Hospital on this dental-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(5/54) \times 100 = 9.25\%$	F
Interdisciplinary Research (17.5%)	(4/17) x 100 = 23.52%	D -
Community Outreach and Advocacy (17.5%)	$(0/9) \times 100 = 0\%$	F -
Support for Student-led Planetary Health Initiatives (17.5%)	(3/9) x 100= 33.33%	D
Campus Sustainability (17.5%)	$(1/22) \times 100 = 4.54\%$	F -
Institutional Grade	13.51%	F