Planetary Health Report Card (Medicine) 2026:

Faculty of Medicine Siriraj Hospital, Mahidol University

Mahidol University
Faculty of Medicine Siriraj Hospital

2025-2026 Contributing Team:

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Summary of Findings

Overall Grade	B

Curriculum	B-

Planetary Health is well-integrated across both preclinical and clinical years. Key topics include climate change impacts (Year 1), heat-related illnesses, environmental infectious diseases, PM2.5 cardiovascular impacts (Year 4), and systematic environmental history taking. Several topics lack formal student assessment. The curriculum also lacks training on patient-centered communication regarding environmental health risks, and places minimal emphasis on the environmental impacts of over-medication and over-investigation.
To address these gaps, the curriculum should formalize evaluation methods by developing clear assessments for Planetary Health. These objectives and evaluation criteria must be explicitly documented in the official syllabus and integrated into standard examinations.

Interdisciplinary Research	A-

The Faculty of Medicine Siriraj Hospital has a strong, multidisciplinary research team that consistently produces planetary health research. The team excels in conducting practical, community-level fieldwork due to its profound knowledge and strong local connections. Currently, there is no dedicated website to centralize planetary health research, and the institution is not a member of any Environmental Sustainability in Health (ESH) organizations.

To maximize the impact of its research capabilities, the institution should establish a dedicated, centralized website to showcase its planetary health research and actively promote the multidisciplinary team's findings to a broader audience. Furthermore, the faculty should create structured opportunities to increase student involvement in these research projects and community fieldwork.

Community Outreach and Advocacy	A

Siriraj has a dedicated community outreach department that oversees community health, primary care, and various volunteer initiatives. The institution has consistently maintained strong, well-established relationships with local communities and affiliated hospitals. Key areas for further development include enhancing public relations channels to better engage the community and expanding related postgraduate education opportunities.
To build upon its strong foundational relationships, the institution should prioritize regularizing and strengthening its communication strategies with both local communities and the broader public.

Support for Student-Led Initiatives	B

There are active student representatives from the Planetary Health Unit and Global Health Club dedicated to sustainable healthcare and planetary health. These students lead community projects, advocate for and contribute to the planetary health curriculum drafts, and coordinate related research for medical students. The faculty also provides general support for student projects and research. The faculty does not yet provide full financial support (such as dedicated grants) for student-led projects. Additionally, there is no specific credit-bearing research program for planetary health, and the student units currently lack an official, dedicated website.

To further empower student initiatives, the faculty should establish dedicated grants or funding mechanisms specifically to support student-led planetary health projects. Additionally, developing formal, credit-bearing research programs or electives in this field would provide necessary academic recognition and incentivize deeper student involvement. Finally, creating an official, dedicated website for the student units

Campus Sustainability	C-
Both Siriraj Hospital and Mahidol University have dedicated sustainability teams actively implementing various initiatives. Concrete policies and projects are already in place, focusing on key areas such as renewable energy, waste management, and carbon footprint tracking. The institution has not yet established a formal target for carbon neutrality, and faces significant challenges in further expanding renewable energy generation. Additionally, there are ongoing issues regarding endowment portfolio investments in fossil fuels, as well as challenges related to sustainable procurement and green building guidelines. To advance its sustainability agenda, the institution should establish a formal, time-bound target for carbon neutrality. It is also crucial to address current operational gaps by developing a strategy for fossil fuel divestment, enforcing strict sustainable procurement protocols, and adhering to green building standards. Most importantly, the faculty must establish a robust monitoring and evaluation framework to systematically track the actual implementation and practical outcomes of its sustainability policies and projects across all departments, ensuring that strategic goals translate into tangible, on-the-ground results.	

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 health professional 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 health professional training. It is imperative that we hold our institutions accountable for educating health professional 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) 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 health professional 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 (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 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 the taught material that is delivered 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).

Scoring Matrix

- Elective coursework (1 point): This score applies to material that is actively selected by the students such as a module choice, or additional lecture series. By implication, only a given proportion of the cohort will receive this taught material.
- Brief coverage in the core curriculum (2 points): This score applies where a topic is covered only briefly in a core curriculum session. This implies that the entire cohort receives the same material. At minimum brief inclusion would qualify as inclusion in a single lecture slide in a single year.
- In depth coverage in the core curriculum (3 points): This score applies where a topic is taught in significant detail or where a topic is repeatedly brought up in different years. This might look like several dedicated lecture slides, or inclusion of the same topic in different lectures and teaching formats.

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.

Updated in 2025, a complete literature review by metric is available for the 2024/25 Medicine Report Card Template. This largely translates across disciplines although we are hoping to expand this process across all of our covered disciplines. A link to the 2025 literature review by metric is available here.

Planetary Health Curriculum

Section Overview: ***This section evaluates the integration of relevant planetary health topics into the medical school curriculum.*** *Today's health professional students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that 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?	
Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)	
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 point)	
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 Assigned:	3
Score explanation: *The Faculty of Medicine Siriraj Hospital operates under the governance of Mahidol University. As part of the university's curriculum requirements, undergraduate students are required to complete a minimum of eight credits in voluntary general education subjects offered across various faculties. Examples of these general education courses include ENGE100 "The Earth and Nature" under the Environment major, as well as ENGE115 "Sustainable Development Goals." In addition, the faculty offers a selective course for fourth-year medical students entitled "Toxicology, Occupational and Environmental Medicine," which emphasizes planetary health and explores the interconnections between environmental factors and individual human health.* *Moreover, as mentioned in last year's report, the selective module "Toxicology, Occupational and Environmental Medicine" for 4th-year medical students includes a 3-hour session featuring a lecture and case-based learning titled "Health Effects of Climate Change and Air Pollution".* *Resource: https://clil.mahidol.ac.th/gened-mu/genedmu-elec/*	

Curriculum: Health Effects of Climate Change

1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?

This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation:
Within the Faculty of Medicine Siriraj Hospital, topics related to climate change and its impact on human health are introduced across multiple stages of the medical curriculum, albeit with varying levels of emphasis and explicit learning objectives. During the second and third academic years, there are references to the association between climate change and the rising global incidence of diseases, particularly in relation to heat-related conditions such as heatstroke. However, despite these mentions, the direct relationship between extreme heat exposure and associated health risks is not explicitly articulated within the formal course learning objectives for these academic years.

In contrast, during the first academic year, climate change is addressed more comprehensively through a dedicated course entitled ***SCID105 – Scientific Inquiry for the 21st century Part II*** ***in a class about climate change.*** *This course explicitly highlights the significance of climate change and global warming on individual health and healthcare systems. The subject matter is actively evaluated and critically discussed both during classroom sessions and through post-class reflections, allowing students to develop foundational awareness of climate-related health impacts early in their medical education.*

Furthermore, as documented in the previous year's curriculum report, heat-related illnesses are covered in greater depth during the fourth academic year as part of the ***Occupational Medicine curriculum*** *within the* ***Preventive Medicine and Family Medicine rotation****. This component specifically addresses the increasing incidence of heat-related illnesses as a direct consequence of climate change. Educational materials provided to fourth-year medical students emphasize occupational hazards associated with rising temperatures, particularly in the context of Southeast Asia.*

1.3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?
This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: *In the first academic year, the curriculum includes a dedicated course,* ***SCID105 – Scientific Inquiry for the 21st century Part II*** ***in a class about climate change,*** *designed to highlight the implications of climate change and global warming for individual health and healthcare delivery. The subject matter is formally evaluated and further explored through structured discussions conducted during and following course completion.*	

1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation:
As noted in the previous year's report, the impacts of climate change on infectious diseases are incorporated into the medical curriculum through several targeted topics. During the ***Medicine rotation*** *in the fourth academic year, teaching and clinical discussions focus on tropical infectious diseases, including malaria, dengue fever, leptospirosis, and other vector-borne infections. These sessions emphasize the epidemiology, clinical presentation, and environmental determinants of these diseases. In addition, the* ***Preventive Medicine and Family Medicine rotation*** *addresses emerging and re-emerging infectious diseases, highlighting the evolving challenges that climate change poses to infectious disease transmission, distribution, and control.*

Beyond structured coursework, these topics may also be explored on an ad hoc basis during clinical placements in the fourth, fifth, and sixth academic years, particularly when students encounter patients presenting with climate-sensitive infectious conditions. Such experiential learning reinforces the real-world relevance of climate change to clinical practice.

Furthermore, the curriculum includes a dedicated topic entitled ***"Communicable Diseases"*** *within the course* ***SIID357 "Preventive Medicine & Health Promotion."*** *This component explicitly addresses the interconnections between climate change, environmental factors, and the incidence of infectious diseases. The course materials emphasize that climate change acts as a significant amplifier of existing health risks rather than as an isolated causal factor. Rising global temperatures are described as altering the geographical distribution of disease vectors, enabling their expansion into higher latitudes and altitudes previously unsuitable for transmission. Warmer climatic conditions also accelerate pathogen development within vectors, thereby shortening transmission cycles and increasing the risk of infection.*

1.5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:
In the third academic year, students participate in interactive lectures on respiratory allergic disorders, alongside case-based learning sessions focused on the clinical approach to sore throat. These teaching activities aim to integrate pathophysiological mechanisms with clinical reasoning skills. Importantly, the relevance and effectiveness of these topics are reinforced through formal inclusion in course learning outcomes and student evaluations, ensuring alignment between teaching objectives and assessed competencies.

In the fourth academic year, the curriculum expands to address the respiratory health impacts of air pollution in greater depth, with particular attention to the short and long-term effects of particulate matter, especially PM2.5. These mechanisms are discussed in the topic about ***"Inflammation and Atherosclerosis,"*** *where students examine how airborne pollutants contribute to respiratory dysfunction and chronic disease. Conditions such as allergic respiratory diseases, chronic obstructive pulmonary disease (COPD), and lung cancer are explored as key clinical outcomes associated with air pollution exposure. However, there is no proper evaluation for the discussed topic included in the curricular guideline.*

1.6. Does your medical school curriculum address the cardiovascular health effects of climate change, including increased heat?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:
In the fourth academic year, the curriculum places emphasis on the short and long-term pathophysiological mechanisms through which PM2.5 and other airborne particulates contribute to cardiovascular morbidity and mortality. These mechanisms, including endothelial dysfunction, systemic inflammation, oxidative stress, and prothrombotic processes are examined in relation to atherosclerosis, myocardial infarction–related mortality, stroke, and overall cardiovascular disease incidence. This content is delivered within the course entitled ***"Inflammation and Atherosclerosis,"*** *which integrates environmental exposures with cardiovascular pathophysiology. However, there is no proper evaluation for the discussed topic included in the curricular guideline.*

In addition, the course provides comprehensive discussion on the associations between climate change and cardiovascular risk, guiding medical students to critically analyze factors influencing exposure, susceptibility, and vulnerability that ultimately shape cardiovascular health outcomes. Students are encouraged to consider population-level and individual-level determinants, including

environmental conditions, occupational exposure, and pre-existing health status, in assessing climate-related cardiovascular risk.

1.7. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	1

Score explanation:
*As reported previously, the selective module **"Toxicology, Occupational and Environmental Medicine"** for fourth-year medical students includes a three-hour session comprising a didactic lecture and case-based learning entitled **"Health Effects of Climate Change and Air Pollution."** Within this session, the psychological impacts of climate change are briefly introduced, with limited coverage consisting of a single slide.*

*In addition, environmental influences on mental health are briefly addressed within the subject **"Disorders of the Nervous System"** for third-year medical students. Specifically, environmental factors are mentioned in relation to psychiatric and neurological conditions under the topic **"Bipolar and Related Disorders, Depressive Disorders, and Suicide."** While these inclusions demonstrate initial integration of environmental and planetary health concepts, the coverage remains limited in scope and depth. However, these two lectures didn't highlight thoroughly on the correlation between environment degradation and neurological pathophysiology.*

1.8. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:
*As noted in the previous year's report, the selective module **"Toxicology, Occupational and Environmental Medicine"** for fourth-year medical students includes a dedicated three-hour session comprising both a lecture and case-based learning, entitled **"Health Effects of Climate Change and Air Pollution."** Within this session, issues related to food and water insecurity arising*

*from climate change are briefly introduced, although they are covered in a limited scope across two lecture slides. In addition, the relationship between health, sanitation, and food and water safety is addressed more comprehensively in the fourth-year course **"Communicable Diseases."** This class explicitly discusses the risks of contamination and foodborne illnesses, emphasizing the public health implications of inadequate sanitation and unsafe food and water systems.*

1.9. Does your medical school 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?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: *As noted in the previous year's report, the Preventive Medicine curriculum for third-year medical students addresses the disproportionate health impacts of climate change on low-income and vulnerable populations through topics such as **Disaster Medicine** and **Health Systems**. However, there is no proper evaluation for the discussed topic included in the curricular guideline.*	

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: *In the fourth-year course entitled **"Inflammation and Atherosclerosis,"** a dedicated slide presents a global heat map depicting deaths per 100,000 population attributable to PM2.5 air pollution in 2019. This visual representation highlights the markedly unequal global distribution of air pollution–related mortality, with a disproportionate burden observed in certain regions worldwide. However, there is no proper evaluation for the discussed topic included in the curricular guideline.*	

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

1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides, microplastics)?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:
As noted in the previous year's report, the selective module ***"Toxicology, Occupational, and Environmental Medicine"*** *for fourth-year medical students includes a three-hour session comprising a lecture entitled* ***"Heavy Metals Poisoning"*** *and a case-based learning session entitled* ***"Occupational Safety and Health."***

Moreover, in the second academic year, there is a class integrating clinical knowledge about puberty and how to identify or treat patients responsibly. This class mentions briefly about the correlation between reproductive disturbance in puberty and endocrine disruptors, including phytoestrogen, lavender oil, and phthalates, which can be found abundantly in plastic being used today. "Biological fluid in the reproductive system." However, there is no proper evaluation for the discussed topic included in the curricular guideline.

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	0

Score explanation:
In the fifth academic year, the curriculum includes a dedicated session examining the environmental impacts of surgical practice and emphasizing the importance of developing greener and more sustainable approaches within hospital settings, particularly in surgical care. The session addresses strategies for optimizing clinical pathways to reduce environmental footprints while maintaining patient safety and quality of care.

In addition, the course covers principles of efficient healthcare waste management, with explicit consideration of socioeconomic and environmental consequences. This content is delivered in depth by a surgical specialist, representing a meaningful step toward integrating planetary health perspectives within surgical education. Through this instruction, students are exposed to practical approaches to minimizing pollution and improving waste management practices, with potential

benefits extending to both healthcare systems. Nevertheless, the course doesn't directly cover the impacts these threats cast on the surrounding communities.

1.13. To what extent does your medical school emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?

This topic was explored **in depth** by the **core** curriculum. (3 points)

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

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:	2

Score explanation:
*This topic is integrated into the curriculum through **Thai traditional medicine education**, which is delivered longitudinally across multiple academic years, with particular emphasis in the third and fifth years. This integration represents a significant milestone in the curriculum, as it promotes students' understanding of herbal and traditional therapeutic practices as complementary or alternative options in patient care. Such approaches may provide clinical benefits while also enhancing sociocultural acceptance of treatment, thereby supporting more patient-centered and culturally responsive healthcare.*

By incorporating traditional medicine into medical education, the curriculum fosters cultural competence among students and encourages greater engagement with indigenous and local communities. This approach may increase trust in medical interventions and promote a sense of shared ownership and inclusion in healthcare practices among these populations.

*This content is delivered through the course **SIID344 "Principles of Investigative and Therapeutic Medicine"** and is further reinforced during the **Medicine rotation** in the third and fourth academic years, respectively. Instruction extends beyond foundational principles and knowledge of herbal therapies to include their practical application in real clinical settings. For example, students learn how traditional medicine approaches can be integrated into the management of chronic conditions such as diabetes mellitus. Student learning is formally evaluated in both the course and clinical rotations, ensuring that competencies related to the appropriate and safe application of traditional medicine are assessed. However, this course didn't cover the correlation between indigenous medical practices and planetary health impacts.*

1.14. Does your medical 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?

This topic was explored **in depth** by the **core** curriculum. (3 points)

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

This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:
This topic is briefly illustrated in second-year medical classes through examples examining the health effects of environmental toxins such as pesticides, organophosphates, and curare on low-educated agricultural worker populations in Thailand, a group that is often underserved and insufficiently addressed by policy initiatives. These examples are integrated into lectures, case discussions, and assessment materials, including examinations, thereby reinforcing students' understanding of environmental health risks and increasing their awareness of the disproportionate vulnerabilities faced by this population. Nevertheless, this integration demonstrates the road to take into account the marginalized populations, but currently the effort to include all the populations still needs to be empowered.

Curriculum: Sustainability

1.15. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:
In the third academic year, the curriculum includes instruction on the concept of plant-based diets within the course ***"Nutrition and Health Promotion."*** *This class examines key differences between plant-based and animal-based dietary patterns, focusing on protein quality and digestibility, health impacts, disease risk profiles, and sustainability considerations. The environmental benefits of plant-based diets, particularly in comparison with animal-based diets, are introduced, although this aspect is addressed briefly.*

Furthermore, as noted in the previous year's report, the health and environmental implications of plant-based diets are also discussed in a two-hour session entitled ***"Diet and Physical Activities for Cardiovascular Risks"*** *for fourth-year medical students during the* ***Preventive Medicine and Family Medicine rotation****. In this session, the cardiovascular and non-communicable disease benefits of plant-based dietary patterns are explored in depth, whereas the associated environmental health benefits are mentioned more briefly.*

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:
*The Faculty of Medicine Siriraj Hospital operates as a campus under the administration of **Mahidol University, Thailand**, an institution recognized for its forward-looking approach to environmental development and sustainability-oriented policies. In the first academic year, all medical students are required to complete general education courses, comprising both mandatory and elective components.*

*Among the mandatory courses is a class dedicated to the **Sustainable Development Goals (SDGs)**, which introduces students to the conceptual framework of sustainable development, outlines both Thailand's national priorities and global SDG agendas, and highlights practical applications and opportunities for student engagement. In addition, Mahidol University requires students to undertake project-based work in which sustainability is identified as one of the approved key thematic areas. This approach promotes experiential learning and facilitates the development of students' understanding of sustainability, while nurturing their capacity to become informed and proactive environmental advocates. However, there is no proper evaluation for the discussed topic included in the curricular guideline.*

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)	**Score**
The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)	1
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). -	0
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 anaesthesia's environmental impacts, such as total intravenous anaesthesia or choosing less	1

environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	
The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0
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)	1

Score explanation:
In the third academic year, medical students are required to complete the course ***"Principles of Investigative and Therapeutic Medicine,"*** *which emphasizes the importance of careful planning and the rational use of diagnostic investigations and treatments. Within this course, a dedicated session entitled* ***"Rational Use of Investigation"*** *outlines a systematic approach to ordering investigations, with the aim of ensuring appropriate, cost-effective, and patient-centered healthcare. The course primarily emphasizes principles of resource management, cost-effectiveness, and patient safety. However, the explicit relationship between over-medication, over-investigation, and their potential environmental impacts is addressed only minimally within the current curriculum.*

In the fourth academic year, students are exposed to ***non-pharmacological management strategies*** *across several clinical rotations. Examples include group therapy modalities in* ***Psychiatry*** *and lifestyle or behavioral modifications in* ***Internal Medicine.*** *Students are formally assessed on their ability to apply these approaches in patient care during clinical evaluations, thereby reinforcing their practical use. This assessment framework allows students to actively choose and implement non-pharmaceutical interventions as part of comprehensive patient management, supporting more holistic and resource-conscious clinical practice.*

In the fifth academic year, the curriculum includes a dedicated class examining the environmental impacts of surgical practice and the necessity of developing greener and more sustainable healthcare systems, particularly within surgical settings. This class addresses efficient waste management strategies while considering both socioeconomic and environmental consequences. Delivered in depth by a surgical professional, the session represents a significant step toward embedding a ***planetary health perspective*** *within the faculty. Key topics include the environmental burden of single-use disposable instruments, the impact of anesthetic agents on climate change, and the broader implications of surgical waste management on surrounding communities.*

In addition, the fifth-year ***Anesthesiology curriculum*** *includes a lecture entitled* ***"Principles of Anesthesia,"*** *which addresses the environmental implications of anesthetic practices. This lecture highlights the transition away from anesthetic gases with high environmental impact—such as nitrous oxide (N_2O) and volatile agents including isoflurane and desflurane—toward increased utilization of intravenous anesthesia. This shift is presented as an example of how clinical decision-making can align patient safety with environmental sustainability.*

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?
Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)

Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 point)
No, there are **no** strategies introduced for having conversations with patients about climate change. (0 points)

Score Assigned:	0

Score explanation:
Currently, the curriculum of the Faculty of Medicine Siriraj Hospital does not include structured strategies or formal training on how to engage in patient-centered conversations regarding climate change and its health implications.

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?
Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)
Only **elective** coursework includes strategies for taking an environmental history. (1 point)
No, the curriculum does **not** include strategies for taking an environmental history. (0 points)

Score Assigned:	2

Score explanation:
*As noted in the previous year's report, a three-hour session comprising an interactive lecture and simulated history-taking on **"Taking Environmental and Occupational History"** is included for fourth-year medical students during the **Preventive Medicine and Family Medicine rotation**.*

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?
Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)
Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)
No, there are **no** improvements to planetary health education in progress. (0 points)

Score Assigned:	4

Score explanation:
As demonstrated throughout this review, the current curriculum reflects intentional efforts to prepare students as competent medical practitioners with an awareness of health systems and the environmental determinants of health. However, these efforts remain fragmented and insufficiently systematized, resulting in planetary health concepts being inconsistently articulated and challenging for students to translate into effective clinical practice.

In response to these limitations, the Faculty of Medicine Siriraj Hospital will implement a restructured curriculum beginning in 2026, designed to be systematic, longitudinal, and outcomes-oriented. The revised curriculum will purposefully align foundational learning in the early academic years with progressively advanced clinical application in the later stages of training. This strategic alignment explicitly extends to planetary health and sustainable healthcare education.

Under the new framework, planetary health principles will be embedded across relevant medical science and clinical courses and consolidated through an integrative course that links health systems, the human life course, and preventive medicine. Students will be introduced to core planetary health concepts through structured workshops in the first and second academic years, followed by guided application within project-based learning activities from the third through fifth academic years. Student engagement, skill development, and competency attainment will be formally assessed throughout this longitudinal educational pathway.

This transition from a loosely defined, fragmented, and minimally assessed approach to a cohesive, interconnected, and rigorously designed curricular framework—represents a substantial advancement in the integration of planetary health and sustainable healthcare within the medical curriculum.

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?	
Planetary health/ESH topics are **well integrated** into the core medical school curriculum. (6 points)	
Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)	
Planetary health/ESH is not integrated and is primarily addressed in **(a) standalone lecture(s).** (2 points)	
There is **minimal/no** education for sustainable healthcare. (0 points)	
Score Assigned:	2

Score explanation:
As noted previously throughout this report card, beginning in 2026, the revised curriculum will formally integrate planetary health content across medical subjects. A minimum requirement has been established whereby each relevant subject must include at least one dedicated slide or learning component explicitly linked to planetary health education, ensuring consistent curricular exposure across disciplines.

During the first and second academic years, the curriculum will introduce foundational concepts through workshops addressing the Sustainable Development Goals (SDGs), global health, and the core pillars of planetary health, supporting early conceptual understanding and cognitive embedding. In the third academic year, planetary health principles will be further incorporated within the health systems curriculum, emphasizing the relationship between healthcare structures, sustainability, and population health.

In the clinical years, planetary health education will be integrated into patient care contexts and applied through problem analysis and health development projects. This longitudinal approach

aims to reinforce theoretical knowledge through clinical application, fostering systems thinking and equipping students to address planetary health challenges within real-world healthcare settings.

However, the current curriculum still has abundant opportunities for improvement on integration to be placed as the mentioning of planetary health is still accumulated in a few lectures each academic year illustrated in this report card.

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?

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

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 Assigned:	0

Score explanation:

The faculty includes staff members who have completed master's degrees in public health, through which they acquire relevant knowledge and competencies related to planetary health and sustainable healthcare. ***However, despite this individual expertise, there is currently no dedicated curriculum development body or formal governance structure specifically focused on integrating planetary health concepts into the medical curriculum.***

At present, curriculum development processes are led primarily by faculty members in preventive medicine, with active participation from medical students. These stakeholders play a key role in proposing and driving curricular changes, including those related to health promotion and sustainability, though planetary health integration remains embedded within broader preventive and public health frameworks rather than addressed as a distinct curricular domain.

1.23. Does your health professional curriculum include teaching on civic engagement/advocacy to address the environmental and structural determinants of health?

This topic was explored **in depth** by the **core** curriculum. (3 points)

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

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:	2

Score explanation:
In the current curriculum, advocacy skill-building is already incorporated through dedicated coursework that equips students with the competencies necessary to initiate systemic change. In addition, the curriculum includes courses that introduce and contextualize the social determinants of health. Together, these components provide a strong foundational framework through which students can apply advocacy principles to issues related to planetary health and sustainable healthcare, guided by their individual interests and areas of engagement.

Furthermore, in the forthcoming curriculum revision, planetary health education will be more explicitly integrated through a project-based learning approach. This model is expected to enhance planetary health literacy among medical students while actively engaging them in real-world problem-solving. By emphasizing applied learning and community-oriented projects, the revised curriculum aims to empower students to become effective advocates and drivers of planetary health initiatives within healthcare systems and broader society. However, there is no proper evaluation for the discussed topic included in the curricular guideline

Section Total (48 out of 75)	**64%**

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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?	
Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)	
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)	
There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)	
No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)	
Score Assigned:	3

Score explanation:

The Faculty of Medicine Siriraj Hospital, Mahidol University, is home to an interdisciplinary research team actively engaged in planetary health research. This initiative was established by a group of researchers from several departments, including the Siriraj Center of Research Excellence in Immunoregulation (SiCORE-IR), the Departments of Otorhinolaryngology, Psychiatry, Preventive and Social Medicine, Surgery, Medicine, Pharmacology, and Forensic Medicine.

Research has expanded and collaborates with the Department of Environmental and Sustainable Engineering, Faculty of Engineering, Chulalongkorn University; Faculty of Public Health, Thammasat University; the Thailand Institute of Scientific and Technological Research (TISTR); and the National Nanotec Center (Nanotec), National Science and Technology Development Agency (NSTDA); the Department of Disease Control (DCC) and the Department of Health (DOH), Ministry of Public Health (MOPH).

This multidisciplinary network investigates a range of planetary health–related topics, including the impacts of climate change and air pollution (particularly PM2.5) on vector-borne diseases, non-communicable diseases, and mental health outcomes. Through its focus on environmental exposures, climate-related health risks, and healthcare sustainability, this body of work aligns closely with the principles of planetary health. It contributes to evidence-based responses to climate and environmental challenges affecting human health.

At present, we are unable to provide published evidence to formally support this statement. The planetary health research team at the Faculty of Medicine Siriraj Hospital has been recently established, and most of the ongoing projects are still in the active research and development phase. As such, the work has not yet reached publication stage.

Several manuscripts and research outputs are currently in preparation, and we anticipate that peer-reviewed publications will emerge within the next five years. Once available, we will be pleased to provide formal documentation of these contributions.

Nonetheless, we would like to reaffirm that the interdisciplinary planetary health research team is officially formed, actively operating, and engaged in ongoing collaborative research initiatives aligned with planetary health and healthcare sustainability principles.

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. (3 points)	
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)	
There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 point)	
There is **no** dedicated department or institute. (0 points)	
Score Assigned:	3

Score explanation:

The Faculty of Medicine Siriraj Hospital has a dedicated institutional structure supporting interdisciplinary planetary health research through the Siriraj Center of Research Excellence in Immunoregulation (SiCORE-IR), which functions as a centralized research entity integrating expertise across multiple clinical and preclinical disciplines.

This center facilitates interdisciplinary collaboration among departments, including the Departments of Otorhinolaryngology, Psychiatry, Preventive and Social Medicine, Surgery, Medicine, Pharmacology, and Forensic Medicine, to address complex health challenges arising from environmental and planetary health issues. Through its institutional role in coordinating research agendas, fostering cross-departmental collaboration, and supporting projects that integrate environmental, social, and clinical perspectives, SiCORE-IR serves as a dedicated institute for interdisciplinary planetary health research at the faculty level.

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?

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

Score Assigned:	3

Score explanation:

The Faculty of Medicine Siriraj Hospital has established processes through its planetary health research initiatives that enable communities disproportionately affected by environmental and climate-related problems to meaningfully influence research agendas at both advisory and decision-making levels.

One example is a community-initiated research project examining the relationship between psychosis and recurrent wildfires in northern Thailand. In this region, wildfires occur annually and contribute significantly to air pollution (PM2.5). The project originated when residents of a local village approached the planetary health research team to investigate the underlying causes of frequent fires, which the community believed were linked to untreated psychosis in a local individual. In response, the research team conducted on-site observations and, guided by community input, decided to collaborate with the Department of Psychiatry to investigate the issue. As similar concerns were subsequently raised by neighboring villages, the scope of the project expanded to address a broader regional problem. This initiative demonstrates community members' ability to initiate research questions and shape the direction and expansion of the research agenda.

In addition, the Bangkoknoi Model Project represents a community-driven initiative that integrates community service and research to address key environmental and planetary health challenges. Bangkoknoi is a community located adjacent to the Faculty of Medicine Siriraj Hospital. The project focuses on issues such as vector-borne diseases, water and air pollution, waste management, telemedicine, and gender inequality. Importantly, research priorities within the project are guided by the expressed needs and perspectives of local community members, ensuring that affected populations play an active role in determining the focus and direction of research activities.

Together, these projects demonstrate that community stakeholders disproportionately impacted by planetary health challenges have substantive input and decision-making influence over research agendas at the institution.

2.4. Does your <u>institution</u> 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. (3 points)

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)
The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)
There is **no** website. (0 points)

Score Assigned:	1

Score explanation: Mahidol University has a website dedicated to sustainability: https://sustainability.mahidol.ac.th/en/home. It includes the mission, vision, and policies of the university for sustainability and highlights several initiatives that align with the SDGs.

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?

Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)
Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)
Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare / vet care in the past three years. (2 points)
The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)
No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)

Score Assigned:	4

Score Explanation: In 2025, the annual Joint Conference in Medical Science (JCMS) — hosted collaboratively between the Faculties of Medicine at Chulalongkorn University, Thammasat University, Siriraj Hospital, and Ramathibodhi Hospital — was centered around the theme of "Harmony in Health: Innovating for Sustainable Medicine". During the conference, several symposiums on topics related to planetary health were held, including its integration into the medical curriculum. Moreover, at the 15th National Conference on Toxicology, the Faculty of Medicine Sirriraj Hospital gave a special lecture on "From Molecules to Ecosystems: Toxicology in the Age of Planetary Health".
Additionally, the Siriraj Health Science Education Excellence Center (SHEE) of The Faculty of Medicine Siriraj Hospital hosted a webinar entitled "The Missing Link: Integrating Medical Education and Planetary Health" on November 13, 2025 as part of the ongoing PEARLS in Medical Education series.

2.6. Is your institution a member of a national or international planetary health or ESH/ESV organisation?	
Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 point)	
No, the institution is **not** a member of such an organisation. (0 points)	
Score Assigned:	0
Score Explanation: Currently neither Siriraj nor Mahidol university is a member of such an organization.	

Section Total (14 out of 17)	**82%**

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Community Outreach and Advocacy

Section Overview: ***This section evaluates a school's 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 institution partner with community organisations to promote planetary and health?	
Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)	
Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)	
The **institution** does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)	
No, there is **no** such meaningful community partnership. (0 points)	
Score Assigned:	3
Score explanation: Our institution partners with community organisations, local authorities, and NGOs to promote planetary health through the Bangkoknoi Model Project, a community-based initiative in the district where the campus is located. In addition, the Faculty of Medicine, Siriraj Hospital actively integrates this project into medical education by engaging students in community field surveys, allowing them to learn firsthand about community health challenges, social determinants of health, and planetary health issues. The project combines community engagement, data collection on health, environmental and socioeconomic factors, and targeted interventions such as CPR training, child health programs, AI-enabled telemedicine services, air pollution awareness campaigns, screening for non-communicable diseases, and broader health promotion activities.	

3.2. Does your institution offer community-facing courses or events regarding planetary health?
The **institution** offers community-facing courses or events at least once every year. (3 points)
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)

The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)
The **institution** has not offered such community-facing courses or events. (0 points)

Score Assigned:	3

Score explanation: The Faculty of Medicine Siriraj Hospital regularly conducts on-site events, television programs, and social media initiatives to educate the public and the community about health issues related to environmental exposure, including air pollution, hazardous exposures during rainy and flood seasons, and strategies for coping with heat waves during the summer. These activities also serve as experiential learning opportunities for students, who are actively engaged in community field surveys and on-site assessments. Through real-world exposure, students are encouraged to connect planetary health concepts with actual community situations, understand the root causes of environmental health problems, and collaboratively propose practical and context-specific solutions.

3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?
Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)
Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)

Score Assigned:	1

Score explanation: The Faculty of Medicine Siriraj Hospital regularly disseminates information on planetary health and environmentally related health issues through official university communication channels, including television programs and social media platforms. These communications address topics such as air pollution, health risks during rainy and flood seasons, and strategies for coping with heat stroke during the summer.

3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post-graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?
Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)

Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers. (1 point)
There are **no** such accessible courses for post-graduate providers. (0 points)

Score Assigned:	1

Score explanation: Mahidol University provides professional education activities for post-graduation students that aim to ensure their knowledge and skills in planetary health and sustainable healthcare remain up to date throughout their professional careers. These are delivered through postgraduate-level courses and seminars focusing on environmental and global sustainability issues, such as Seminar in Environmental Management, Management of Global Resources and Ecosystem, and Global Environmental Policy and Economics.

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?

Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)
Some affiliated hospitals have accessible educational materials for patients. (1 point)
No affiliated medical centres have accessible educational materials for patients. (0 points)

Score Assigned:	2

Score explanation: The medical school communicates health-related information to the public and community through platforms such as the YouTube channel Siriraj Channel and the Facebook page SirirajPR. Topics include environmental exposures, such as air pollution, hazardous exposures during rainy and flood seasons, strategies for coping with heat waves in the summer, and prevention of common toxic exposures in households and workplaces. Patients have access to these media both at the hospital and at home.

Youtube link: https://youtu.be/8vqCRE3WHgM?si=9yNC8jV3T5w093ps

3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?

Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)
Some affiliated hospitals have accessible educational materials for patients. (1 point)
No affiliated hospitals have accessible educational materials for patients. (0 points)

Score Assigned:	2

Score explanation: The medical school communicates health-related information to the public and community through platforms such as the YouTube channel Siriraj Channel and the Facebook page SirirajPR. Topics include environmental exposures, such as air pollution, hazardous exposures during rainy and flood seasons, strategies for coping with heat waves in the summer, food-borne diseases, suitable exercise during specific weather conditions and prevention of common toxic exposures in households and workplaces.

Section Total (12 out of 14)	**85%**

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Support for Student-Led Planetary Health Initiatives

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

4.1. Does your institution offer support for students interested in enacting a sustainability initiative/QI project?	
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)	
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)	
No, the institution does not offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	1
Score explanation: In 2025, Mahidol University is hosting an innovation challenge on Sustainable Development, focusing on social, economic, and environmental aspects for teams of Mahidol University students. Siriraj medical students may participate voluntarily as members of Mahidol University. However, the medical school does not provide funding support for this program nor require students to participate.	

4.2. Does your institution offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare?	
The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)	
There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek them out and carry them out in their spare time. (1 point)	
There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)	
Score Assigned:	1
Score explanation: There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these require student initiative to seek them out and carry them out. Moreover, Siriraj research club has been enhanced research opportunities by matching students and professors who shared similar topics of interest.	

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.	
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)	
There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)	
There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)	
Score Assigned:	1
Score explanation: Mahidol University maintains a dedicated sustainability website (https://sustainability.mahidol.ac.th/en/home) that outlines the university's vision, mission, and policies related to sustainable development. This website also has a range of initiatives and projects that support and align with the United Nations Sustainable Development Goals (SDGs). However, specific information related to planetary health is not clearly defined, as it appears to be only a small component within associated topics.	

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?	
Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)	
Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)	
No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	2
Score explanation: The Global Health Club of the Faculty of Medicine Siriraj Hospital, Mahidol University, is a student group consisting of undergraduate medical students. Within the club, the **Planetary Health unit** serves as the main division dedicated to raising awareness and sharing interesting news and knowledge about planetary health. Additionally, the club collaborates with the student committee to create volunteer projects for the local community. The club operates under the guidance and support of a faculty mentor	

4.5. Is there a student liaison representing sustainability interests who serves on a department or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative who serves on a department or institutional decision-making council/committee. (1 point)	
No, there is no such student representative. (0 points)	
Score Assigned:	1
Score explanation: A representative from the Siriraj Medical Student Union, especially the academic department, presents students' concerns at the Siriraj Medical School Committee meeting, which is held twice a month. Additionally, they serve on the curriculum development committees for both pre-clinical and clinical education at the Faculty of Medicine Siriraj Hospital. However, they have never influenced the planetary health aspect of the curriculum.	

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	**Score**
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.	0
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.	0
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)	1
Score explanation: ● Mahidol University offers Envitalk every few months as a platform for students to learn, exchange ideas, and discuss environmental issues in Thailand, such as air pollution,microplastics, waste management, and endangered species. Students who participate in these activities receive activity credits. Moreover, Mahidol University allows students to propose the projects under the topic “SDGs to Real World Impact” and encourages them to make projects happen. These activities began to submit the proposal within December 2025.	

- There is a side meeting in PMAC 2025 which is hosted by Mahidol University, Faculty of Medicine Siriraj Hospital and Mahidol University International College about Integrating Planetary Health and Sustainable Healthcare into Healthcare and College-Level Education.
- The Siriraj Medical Student Union, with the approval and support of the medical school, organized a fundraising rally to donate essential supplies and provide telehealth services for flood victims in Northern Thailand. The initiative began in November 2024 and will continue until March 2025.
- Planetary health unit (SiGHC) of Faculty of Medicine Siriraj Hospital, Mahidol University cooperate with the personal development department of Siriraj Medical Student Union hosted a nearby Siriraj hospital community survey event about how the environment affects health, and volunteers collect trash along the river in the community.
- There is a birdwatching activity hosted by SI go green club at Vachirabenjatas Park, Bangkok. Birdwatcher experts were invited to give interesting information about birds, their habitats and their species.

Section Total (10 out of 15)	66.67**%**

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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 institutions, 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?	
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)	
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)	
There are **no salaried sustainability staff,** but there is a sustainability task force or committee. (1 point)	
There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	3
Score explanation: Mahidol University and the Faculty of Medicine Siriraj Hospital have established the Sustainability Policy Committee and the Sustainable Development Goals Committee to translate policies and strategies into actionable plans. Various relevant departments are responsible for implementing sustainability initiatives. Additionally, a dedicated Sustainability Unit has been established for 1 year, with eight full-time personnel specifically assigned to oversee and manage sustainability efforts across the university and hospital campuses. They mainly focus on establishing the Carbon Footprint of Organization (CFO) of the hospital, implementing waste management systems, and reducing energy consumption.	

5.2. How ambitious is your institution's plan to reduce its own carbon footprint?
The institution has a **written and approved plan** to achieve carbon neutrality by **2030** (5 points)
The institution has a **written and approved plan** to achieve carbon neutrality by **2040** (3 points)
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)
The institution does **not** meet any of the requirements listed above (0 points)

Score Assigned:	1

Score explanation: Mahidol University introduced its Net Zero Emission Policy to align with global climate goals set out in the 24th Conference of the Parties to the UN Framework Convention on Climate Change (COP24), which aims to achieve net-zero greenhouse gas (GHG) emissions by 2030 and limit the global temperature increase to within 1.5°C. In support of this commitment, the university launched the "9 to Zero" initiative, targeting net-zero emissions within nine years.
The university encompasses a wide range of entities, including the University Council Office, Office of the President, Kanchanaburi Campus, Graduate School, Library and Knowledge Center, 16 faculties, 7 institutes, 6 colleges, 10 centers, 12 administrative divisions, and 2 emerging campuses. GHG emissions are measured in tons of carbon dioxide equivalent (tCO_2e), covering seven key gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).
Emissions are categorized as follows:

- Scope 1: Direct emissions from stationary and mobile combustion, as well as fugitive emissions (e.g., fuel used in machinery and university vehicles, CO_2 leaks from fire extinguishers).
- Scope 2: Indirect emissions from purchased electricity, measured through electricity consumption from the Provincial and Metropolitan Electricity Authorities.
- Scope 3: Other indirect emissions, including emissions associated with purchased water from regional authorities and procurement of goods and services.

Mahidol University's Salaya Campus recorded 31,244.05 tCO_2e in fiscal year 2021 as the baseline. In the following year, emissions were reduced to 30,072 tCO_2e, reflecting meaningful progress under the "9 to Zero" roadmap. These efforts directly support Sustainable Development Goal (SDG) 13: Climate Action.
More information is available at the following link:
https://op.mahidol.ac.th/pe/en/carbon-emission/

Furthermore, the hospital has established a dedicated SDGs unit to implement the Carbon Footprint of Organization (CFO) framework. The unit has set a target to reduce carbon emissions by 30% by 2030, with the ultimate goal of achieving Net Zero in the future

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?	
Yes, institution buildings are **100%** powered by renewable energy. (3 points)	
Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)	
Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)	
Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)	
Score Assigned:	0

Score explanation: Currently, the hospital generates 1 megawatt of renewable energy, which accounts for a minimal percentage of our total consumption. However, increasing production capacity is challenging due to legal constraints.

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?	
Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)	
Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)	
Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)	
Sustainability is **not considered** in the construction of new buildings. (0 points)	
Score Assigned:	1
Score explanation: While a thorough feasibility study was conducted for the 84-Year Anniversary Building, results indicate that retrofitting and system replacement are highly complex. Consequently, the Faculty is now pivoting its strategy to implement these sustainable building standards in future construction projects instead. **This is further supported by Mahidol University's 2025 announcement regarding the policy for energy-saving building improvements and construction, aiming to enforce full energy efficiency and the lowest possible carbon footprint**. More information is available at the following link: https://op.mahidol.ac.th/pe/2018/1935/	

5.5. Has the institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?	
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)	
The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)	
The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)	
Score Assigned:	2

Score explanation: The Faculty of Medicine Siriraj Hospital has successfully expanded its electric shuttle bus service, with all seven routes now fully operational. Moving forward, we plan to further increase the EV fleet to replace the remaining combustion-engine vehicles. **In parallel, Mahidol University has replaced its entire internal tram fleet with electric buses, which have been in service since September 2025.**

5.6. Does your institution have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?	
Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)	
The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)	
There is **no** compost or recycling program at the institution. (0 points)	
Score Assigned:	2
*Score explanation: In 2025, Mahidol University declared a **'Zero Waste University'** goal, enforcing policies to reduce single-use plastics and strictly categorize waste into 5 types: General, **Organic**, Recyclable, Hazardous, and Infectious. Under the 2025 management measures, organic waste (food scraps) at the Salaya campus is processed into fertilizer, bio-fermented water, and animal feed.* *Aligning with this university-wide policy, **Siriraj Hospital** continues its successful **Waste Bank Project** (est. 2017) to manage recyclables (plastic, paper, metal, glass) and hazardous waste systematically. Furthermore, Siriraj is preparing to reform its waste separation guidelines to include **organic waste management**. This includes upgrading hallway bins to accommodate both recycling and compostable waste, with a pilot implementation scheduled for **2026**. This demonstrates a concrete transition towards comprehensive waste management covering both recycling and composting."* More information can be found at the link : https://www.si.mahidol.ac.th/th/division/um/admin/download_files/204_48_13XJ9WL.pdf https://op.mahidol.ac.th/pe/mu-zero-waste/	

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)?
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)
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)

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)	
There are **no** sustainability guidelines for food and beverages. (0 points)	
Score Assigned:	2

Score explanation:

Yes, Mahidol University applies sustainability criteria to food and beverage selections.

The University has officially announced the **"Policy on Promoting Food from Sustainable Sources, High Nutritional Value, and Hygiene (2025),"** which aligns with the SDGs (specifically Goal 14: Life Below Water). This policy enforces strict guidelines for all food vendors and cafeterias on campus, including:

- **Sustainable Sourcing:** Vendors must prioritize ingredients from sustainable sources, specifically "Sustainably Harvested Aquatic Food" and produce that is safe from contaminants.
- **Local & Seasonal Sourcing:** The policy explicitly supports the purchasing of seasonal vegetables and fruits directly from local farmers to support the local economy and reduce carbon footprints from transport.
- **Promotion of Plant-Based Diets:** The University actively promotes healthy and sustainable menus, specifically encouraging vendors to offer **Vegetarian and Plant-based** options to reduce the environmental impact of food consumption.
- **Waste Management:** The policy mandates waste separation systems and campaigns to reduce food waste within cafeteria areas.

More information is available at the following link:
https://op.mahidol.ac.th/pe/2018/1935/

5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?	
Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)	
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)	
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)	
There are **no** sustainability guidelines for supply procurement. (0 points)	
Score Assigned:	1

Score explanation: Mahidol University has a Green Procurement policy, and the Faculty of Medicine Siriraj Hospital acknowledges this policy and is in the process of aligning its procurement practices accordingly. The following is the link to Mahidol University's Green Procurement Policy: https://op.mahidol.ac.th/pe/green-procurement/

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?	
Every event hosted at the institution **must** abide by sustainability criteria. (2 points)	
The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required.** (1 point)	
There are **no** sustainability guidelines for institution events. (0 points)	
Score Assigned:	0
Score explanation: The Faculty of Medicine Siriraj Hospital only encourages conferences and seminars to consider environmental impacts ; however, this is not yet mandatory and there are still no sustainability guidelines for institution events.	

5.10. Does your institution have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)	
There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)	
There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)	
Score Assigned:	1
Score explanation: Laboratories in the Faculty of Medicine are certified under ISO 15189 and ISO 15190 standards, which include environmental and sustainability considerations.	

5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?
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)
The institution is **entirely divested** from fossil fuels. (3 points)
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)

The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)	
Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)	
Score Assigned:	0
Score explanation: The university's endowment includes fossil fuel companies in its portfolio. Governing committee members have raised concerns about divestment. In addition, the university has a policy to invest only in corporations with strong ESG profiles.	

Section Total (13 out of 32)	**40.625%**

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Grading

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

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

**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 Siriraj School of Medicine.
The following table presents the individual section grades and overall institutional grade for the Siriraj School of Medicine on this Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(48/75) x 100 = 64.00%	B-
Interdisciplinary Research (17.5%)	(14/17) x 100 = 82.35%	A-
Community Outreach and Advocacy (17.5%)	(12/14) x 100 = 85.71%	A
Support for Student-led Planetary Health Initiatives (17.5%)	(10/15) x 100= 66.67%	B
Campus Sustainability (17.5%)	(13/32) x 100 = 40.63%	C-
Institutional Grade	**(64x0.3 + 82x0.175 + 85x0.175 + 66.7x0.175 + 40.63x0.175) = 67.21%**	**B**

Report Card Trends

Section Overview
This graph demonstrates trends in overall and section grades for the years in which Siriraj has participated in the Planetary Health Report Card initiative.