



Planetary Health Report Card (Medicine):

***Leids Universitair Medisch Centrum
(LUMC)***



2024-2025 Contributing Team:

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Summary of Findings

Overall Grade	C-
Curriculum	C
- In most areas, initial steps toward planetary health education have been taken. However, it is largely implemented through elective courses and not yet fully integrated into the core curriculum. Additionally, insufficient attention is given to populations that are likely to experience greater adverse effects from climate change and environmental degradation, worldwide and in the institution's surroundings. Education on the link between infectious diseases or diets and climate change, however, is well integrated in the curriculum already. The environmental impact of the healthcare sector and ways to behave more sustainably in this sector are widely incorporated as well. Recommendations: The LUMC is making great strides toward integrating planetary health education into the core curriculum, and it is highly encouraged that this progress continues. Further improvements could be achieved by incorporating education on specific aspects of climate change, such as heat waves, pollution, marginalized populations, reproductive health, and neurological or psychological effects. Additionally, training master's students in effective communication techniques would help them initiate discussions with patients on climate change and the benefits of planetary health.	
Interdisciplinary Research	C
- Various faculty members of the LUMC are conducting research on topics related to planetary health as well as sustainable health care. Furthermore, the university is a member of the Planetary Health Alliance and has recently hosted a symposium on sustainable health care. Recommendations: The LUMC could start a dedicated department or research cluster for planetary health research, with a website that is regularly updated. More importantly, community organisations could be engaged in the formation of the research agenda regarding planetary health and sustainable health care.	
Community Outreach and Advocacy	D-
- The LUMC has little to no community outreach relating to planetary health. There are no community-facing events regarding planetary health. Some students receive updates on planetary health, but this information is not aimed at post-graduates. There are educational materials for patients on environmental and work-related health hazards, but patients receive no information on planetary health. Recommendations: The LUMC could educate patients on the topic of planetary health and sustainable healthcare. Furthermore, existing or new partnerships with community organisations could include planetary health as a more prominent topic of the partnership.	
Support for Student-Led Initiatives	C-
- Leiden University and the Medical Faculty (LUMC) show moderate attention for student-led initiatives, mostly in the form of encouragement without any specific incentive, guidelines or specific help. Options to contribute to sustainability/planetary health definitely exist but one has to find them by themselves as of right now. Student representation could be improved as well. Recommendations: Student representation could be improved. Options to contribute to sustainability/planetary health could be incentivised, promoted and encouraged more, for example via student green teams.	
Campus Sustainability	C-

- Leiden University and the Medical Faculty (LUMC) can improve in many ways in order to become a more sustainable campus. Some things are going very well already, like there being a fully operational Office of Sustainability and promoting food sustainability. However, the institution is not doing great in terms of their carbon footprint, guidelines for institution events and fossil fuel divestment.
- **Recommendations:** The institution would benefit greatly from having guidelines for institution events. Though they are already working on this, efforts could be made for making food as sustainable as possible. Lastly, the institution could consider working on their carbon footprint and look into fossil fuel divestment.

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, 4) community outreach centred on environmental health impacts, and 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 (Metric #19 in Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.
- **Elective:** The word "elective" refers to an optional course or lecture series that a student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Core Curriculum:** This refers to taught material that is 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.
- **Extractivism]:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to

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

- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.
- **Low socioeconomic status (SES):** An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.
- **Low and Middle-Income Countries (LMIC):** Countries that have lower degrees of economic affluence.
- **Anthropogenic:** Created through human activity
- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

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

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

Planetary Health Curriculum

Section Overview: This section evaluates the integration of relevant planetary health topics into the medical school curriculum. Today's medical students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that medical students are trained to understand the health effects of these changes, as well as planetary health issues and principles more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum.

Curriculum: General

1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
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 points)	
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:	1
<i>Score explanation:</i> The half Minor Primary Care at the LUMC, NL, contains one lecture dedicated to Planetary Health and first line care. The half Minor Clinical Immunology at the LUMC, NL, includes a lecture about Planetary Health in relation to infectious diseases. The half Minor Global Health provides students with a perspective on planetary health in the lecture Impact of climate / environmental change on health systems worldwide.	

Curriculum: Health Effects of Climate Change

1.2. Does your <u>medical school</u> 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:	1

Score explanation:

The elective honours course 'Beyond the Boundaries of Healthcare' contains one lecture session on planetary health. In this lecture, a notion on the relationship between extreme heat, health risks, and climate change is made.

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:

1

Score explanation:

The half Minor Primary Care at the LUMC, NL, contains one lecture dedicated to Planetary Health and first line care. The half Minor Clinical Immunology at the LUMC, NL, includes a lecture about Planetary Health in relation to infectious diseases.

The half Minor Global Health provides students with a perspective on planetary health in the lecture Impact of climate / environmental change on health systems worldwide. These lectures included focus on the impacts of extreme weather events on individual health and/or on healthcare systems.

1.4. Does your medical school 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:

The course 'Mechanisms of Disease 1' in year 2 at the LUMC focuses on Infectious diseases and includes education on planetary health and vector borne diseases in context of climate change. There are also electives such as the half Minor Clinical Immunology and the half Minor Global Health that address the impact of climate change on the changing patterns of infectious diseases.

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 points)

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

Score Assigned:

2

Score explanation:

At the master of medical school at LUMC an e-learning on planetary health for the placement health and prevention mentions the respiratory health effects of climate change and air pollution. In the upcoming year, the Bachelor Course 'Thorax and Kidney' will address this also.

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 points)

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

Score Assigned:

2

Score explanation:

At LUMC the master of medicine includes an e-learning on planetary health for the placement health and prevention. During the half Minor Global Health and the Honours course 'Beyond the boundaries of healthcare' this topic is briefly mentioned.

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 points)

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

Score Assigned:

0

Score explanation:

The LUMC curriculum does not yet address the mental health and neuropsychological effects of environmental degradation and climate change. It is briefly mentioned in one preparatory e-learning before placements and possibly in elective coursework but this does not cover the issue enough to attribute any points

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 points)

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

Score Assigned:

0

Score explanation:

Food or water security is not yet covered in the curriculum. The individual relationship between diet and environmental impact is briefly mentioned in the lecture on healthy diet and gut health in the second year of Medicine at the LUMC. However, planetary health, health and the ecosystem are not emphasised and no connection with extractivism or planetary boundaries is made.

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 points)

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

Score Assigned:

1

Score explanation:

The half Minor Primary Care at the LUMC, NL, contains one lecture dedicated to Planetary Health and first line care. The half Minor Global Health provides students with a perspective on planetary health in the lecture Impact of climate / environmental change on health systems worldwide. Both these electives addressed the outsized impact of climate change on marginalised populations.

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 points)	
This topic was not covered. (0 points)	
Score Assigned:	1
<i>Score explanation:</i> The half Minor Global Health provides students with a perspective on planetary health in the lecture Impact of climate / environmental change on health systems worldwide. It thus addresses the unequal regional health impacts of climate change globally.	

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

1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
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 points)	
This topic was not covered. (0 points)	
Score Assigned:	0
<i>Score explanation:</i> At LUMC, there is currently no dedicated curriculum addressing the reproductive health effects of industry-related environmental toxins, such as air pollution and pesticide exposure. While some general environmental health topics are discussed, the specific impacts on reproductive health are not covered in our coursework.	

1.12. Does your <u>medical school</u> 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 points)	
This topic was not covered. (0 points)	
Score Assigned:	0
<i>Score explanation:</i>	

At our medical school, there is currently no dedicated curriculum addressing human-caused environmental threats such as air, light, or water pollution, nor pesticide exposure. Additionally, hazards like flood risks and heat waves—which are significant concerns for our surrounding community—are not covered in regular coursework.

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 points)

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

Score Assigned:

0

Score explanation:

This topic is not covered yet in the curriculum. It is, however, important to note that no or few (prominent) indigenous populations in the Netherlands are known of. In regard to global health education or education that is held partly abroad, lectures on this are highly recommended to add fundamental acknowledgement of a lifestyle in balance with our environment as well as fostering decolonising perspectives

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 points)

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

Score Assigned:

1

Score explanation:

The half Minor Primary Care at the LUMC, NL, contains one lecture dedicated to Planetary Health and first line care. In this lecture, some time is allocated to address the outsized impact of climate change and toxins on certain populations.

1.15. Does your <u>medical school</u> 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 points)	
This topic was not covered. (0 points)	
Score Assigned:	3
<i>Score explanation:</i> During the first year course 'Control and Metabolism', a symposium in context of nutrition covers this topic. The Course 'Abdomen' in the third year also puts emphasis on this topic.	

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 points)	
This topic was not covered. (0 points)	
Score Assigned:	3
<i>Score explanation:</i> In a variety of courses the carbon footprint of healthcare systems is discussed. For example in the Course 'Thorax and Kidney' in a lecture on pharmacology and in The Course 'Mechanisms of Disease 1' in the lecture 'Introduction to planetary Health'. In the master preparatory course as well as other placements focus is put on sustainable diagnostics.	

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)	2
The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	2
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	1

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)	
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 environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	1
The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	1
Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	1
<i>Score explanation:</i> • The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment is covered throughout the curriculum, e.g. in the placement 'Health and Prevention' focusing on sustainable choices for therapy. • 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 are discussed in the course 'Pharmacology' in year 2. • The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits is covered in the courses focusing on health promotion throughout all six years. • Environmental impact of surgical healthcare on planetary health and the climate crisis, and how it can be mitigated is discussed in the course 'Abdomen' as well as the symposia days of the Surgery placements. • 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 environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions is covered in the course 'Abdomen' as well as the half minor 'Sense and Non-sense in Anesthesiology'. • The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers is discussed in the courses 'Thorax and Kidney' and Pharmacology classes. • Waste production within healthcare clinics and strategies for reducing waste in clinical activities is covered in various preparatory courses for clinical placements in the master phase.	

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your medical school's 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 points)	
No, there are not strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	0
<i>Score explanation:</i> The LUMC does not offer any strategies on having conversations with patients about climate change. This would well be fit into both the bachelor and master education on professional skills.	

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:	0
<i>Score explanation:</i> Leids Universitair Medisch Centrum (NL) does not yet offer any strategies for taking an environmental history or exposure history. This would well be fit into both the bachelor and master education on professional skills.	

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
<i>Score explanation:</i> Leids Universitair Medisch Centrum (NL) has established a faculty-wide Impulse team dedicated to coordinating the implementation of planetary health education across all curricula. Workshops have been conducted to enhance the professional development of lecturers and teachers, and these sessions—as well as additional information on planetary health education—are publicly available.	

Moreover, staff members are encouraged to integrate this education into all of their courses, with the team continuously providing updates, assistance, and support.

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core 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:

4

Score explanation:

At the University of Leiden Medical Centre (Netherlands), the core curriculum will now include enhanced education on planetary health across all courses, in addition to the existing electives that will continue to be offered. The theoretical courses, which span the three-year bachelor's program, will cover topics such as pharmaceutical effects, the impact of pollution on cardiovascular and lung health, and the environmental co-benefits of certain lifestyle habits. This content will be integrated throughout the academic years—with a dedicated special week supplementing the regular lectures on these topics. In the master's phase of medicine, the focus shifts to practical learning; however, raising awareness of planetary health effects prior to placements and incorporating a "Mastermind Challenge" on environmental topics should help keep students engaged with these issues. Currently, the topics covered in the curriculum do not yet amount to the 6 points required.

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:

1

Score explanation:

The Impulse team, consisting of medical students as well as employees to include planetary health in the core curriculum, is led by staff members Laura Warmerdam (l.a.warmerdam1@lumc.nl) together with Nienke Boogaard (j.a.boogaard@lumc.nl).

Section Total (37 out of 72)	51,4%
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Interesting to note is that in the upcoming years, special reinforcement of professional identity and development in regards to planetary health will be offered to students at LUMC.

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:

Various faculty members have a primary research focus in planetary health or sustainable healthcare. A postdoc researcher specialising in family medicine is doing research on sustainable healthcare. (<https://www.lumc.nl/actueel/2024/groene-planeet-groene-zorg/>) A PhD-student is researching Planetary Health in the training for General Practitioners. ([Duurzaamheidsonderwijs voor de huisartsenopleiding van Eva Visser | LUMC](#)) A research team is dedicated to sustainability in the operation rooms. ([Hoe groen is de OK? Barometer moet ziekenhuizen inzicht geven | LUMC](#)) A vacancy for a PhD-program for sustainability in Anesthesia was recently published. Furthermore, there are students researching healthcare sustainability within different specialities of the hospital. They are part of a bigger program that is linked between our institution and two institutions nearby. ([11 masterstudenten starten met onderzoek naar verduurzaming ziekenhuizen | LUMC](#)). Additionally, a member of our faculty is researching health problems caused by air quality in different regions of the world, as part of a PhD-program. Lastly, the ECOTIP project allows researchers to study the effects of the environment on population health. ([Hoe beïnvloedt de fysieke leefomgeving de gezondheid van mensen? | LUMC](#))

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 points)	
There is no dedicated department or institute. (0 points)	
Score Assigned:	1
<i>Score explanation:</i> The LUMC has a Public Health Department which includes the research programme Population health, aiming to improve health, functioning and quality of life across the lifespan and striving for health equity and sustainability in the organization of healthcare. There is no specific focus on Planetary Health.	

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 <u>institution</u>?	
Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda. (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 points)	
There is no process, and no efforts to create such a process. (0 points)	
Score Assigned:	0
<i>Score explanation:</i> To this date there are no processes available and no (known) efforts to create a process.	

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
<i>Score explanation:</i> The institution does have an extensive Sustainability website, but this does not include research on sustainability (https://www.lumc.nl/over-het-lumc/het-lumc/mvo/duurzaamheid2/) and it is not updated regularly. However, the institution has joined an interdisciplinary alliance with two other institutions in the area, called the Centre for Sustainability (https://www.centre-for-sustainability.nl/home). This organisation develops interdisciplinary education and research for students and academia. The thesis labs are specifically interesting and allow students to write their master thesis on a sustainability challenge set by an external organization, working together with professionals and academic experts, following workshops, lectures and joining excursions. Various students of our institution have participated in research projects through this organisation (https://www.lumc.nl/actueel/2023/11-masterstudenten-starten-met-onderzoek-naar-verduurzaming-ziekenhuizen/). It does not include a broader focus on planetary health, which is why only 1 point is awarded.	

2.5. Has your <u>institution</u> 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/vetcare 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:	3
<i>Score explanation:</i> Last november (2024), our institution hosted a symposium on Sustainable Food in Hospitals (https://www.lumc.nl/over-het-lumc/agenda/2024/november/symposium--duurzame-voeding-in-de-ziekenhuizen/). A symposium or conference on planetary health has not been hosted by our institution (yet).	

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 points)

No, the institution is **not** a member of such an organisation. (0 points)

Score Assigned:

1

Score explanation:

Leiden University is a member of the Planetary Health Alliance
(<https://www.planetaryhealthalliance.org/pha-members>).

Section Total (9 out of 17)

52.9%

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Community Outreach and Advocacy

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

3.1. Does your <u>institution</u> partner with community organisations to promote planetary and environmental 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:	0
<i>Score explanation:</i> No points were assigned.	

3.2. Does your <u>institution</u> 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 have not offered such community-facing courses or events. (0 points)	
Score Assigned:	0
<i>Score explanation:</i> No points were assigned.	

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:

Planetary health and sustainable health care are occasionally mentioned in the institution updates. There is an internal webpage for master students and health care professionals on which updates and articles on various topics are published. These updates include interviews with individuals promoting planetary health and sustainable health care, or innovations made by green teams within the institution.

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 provider. (1 point)

There are **no** such accessible courses for post-graduate providers. (0 points)

Score Assigned:

0

Score explanation:

No points were assigned.

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

Yes, the **medical school** 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
<i>Score explanation:</i> There are web pages within the LUMC website which contain information accessible for patients about environmental exposures. For example, the Lung Diseases department of the LUMC has a patient folder on work related health care problems (Beroepsgerelateerde longziekten LUMC). There is also a webpage on trees and the pollen they release (Bomenkompas LUMC). This information, however, could be expanded to include a wider variety of topics within planetary health and environmental exposure.	

3.6. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?	
Yes, the institution or <u>all</u> 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:	0
<i>Score explanation:</i> No points were assigned.	

Section Total (3 out of 14)	21.4%
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There is a collaboration of our institution within the NFU (Nederlandse Federatie van Universitair Medische Centra, translation: Dutch Federation of Academic Medical Centres) and the Green Deal Sustainable Health Care to accelerate the green transition in the health care sector. This Green Deal also includes efforts on patient education.

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:

To our knowledge, the LUMC does not have any grants available for SusQI student projects yet. Green Teams can make their department more sustainable, and doing so is encouraged, but this is not done through grants or funding and is also not open to students. The LUMC is a faculty of Leiden University, and despite the University not having any explicit grants available for SusQI projects, it is possible for both students and employees to apply for a Leiden University Fund grant for any type of project with social or scientific relevance, which would include SusQI projects. Since this is not a grant specifically intended for SusQI projects, the institute scores a 1. There are, however, elective rotations related to sustainability the medical students can opt for, as well as the Masterminds Challenge, a part of the MSc medicine that has cases that relate to planetary health for the students.

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 these 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
<i>Score explanation:</i> Leiden University, and by proxy the LUMC, has some opportunities for (medical) students to perform research related to planetary health topics through thesis labs at the Centre for Sustainability. This is a joint venture between three universities, Leiden University, Technical University Delft and Erasmus University (LDE-universities). There is also room for students to seek contact with a researcher for planetary related topics for the internship part of the MSc Medicine. Though there are definitely opportunities, research related to planetary health topics still mostly requires student initiative to get going.	

4.3. Does the <u>institution</u> 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
<i>Score explanation:</i> The LUMC and Leiden University have several websites on which information on sustainability and planetary health projects can be found. They are, however, a bit inaccessible and difficult to find, and the websites don't relate well to each other, making it seem like a collection of individual websites, rather than a network. Another issue is that contact information is not up to date and that it is very challenging to find out how to get into contact with the right people, for example for research. There are improvements to be made here, both through improvement of the external representation through the websites (making them a whole rather than individual bits) and internally through better communication between the individual efforts. The latter is in the works, but has not been realised yet.	

4.4. Does your <u>institution</u> have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?	
Yes, there is a student organisation with faculty support at my 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
<i>Score explanation:</i> University Leiden, and by proxy the LUMC, has the Leiden University Green Office (LUGO), which has a team of students and some university employees that are dedicated to improving the sustainability of the university. Furthermore, many of the students' associations in Leiden have their own sustainability groups within their association, which the university does not explicitly acknowledge, though they aren't opposed to it either. In some cases the university cooperates with them too. Given that, and the existence of the LUGO and student-led Green Team, the institute scores a two here.	

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)	
No, there is no such student representative. (0 points)	
Score Assigned:	0
<i>Score explanation:</i> Student council and other student representation do not have a dedicated member for sustainability or planetary health, but individual student representatives could choose to prioritise this topic in their term. More attention for planetary health and sustainability within the student council is needed.	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	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.	0

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.	0
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	0
<i>Score explanation:</i> University Leiden, together with the other two universities in the LDE-alliance, has organised an honours program dubbed "LDE Sustainability Honours Programme", with a theoretical part and a practical part where students work together on a sustainability program. This is not open for everyone and has limited capacity, however it is still a sustainability program intended for students. None of the other suggested activities have been organised for Leiden University	
Section Total (6 out of 15)	40.0%

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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 medical schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.*

5.1. Does your <u>institution</u> 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
<i>Score explanation:</i> Leiden University has the Leiden University Green Office, a team of students and university employees that work on making the university more sustainable. There is specific salaried staff in charge of the Green Office, and several salaried students have been employed by the university. There is also a sustainability coordinator at the LUMC itself that is responsible for the sustainability in the hospital. They are in contact with all the green teams and other faculties.	

5.2. How ambitious is your <u>institution's</u> 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:	0

Score explanation:

The LUMC has a written plan to achieve carbon neutrality by 2050, so it doesn't meet any of the metrics listed above. The LUMC did sign the Green Deal 3.0, aiming for about a 55% reduction in CO2 emissions by 2030, amongst other things.

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:

1

Score explanation:

The LUMC indicated they are planning on procuring 80 percent of the energy needed from sustainable and renewable sources. Use of certificates to compensate emissions is now stopped. Efforts for renewable energy usage are being made but not yet implemented. Thus, currently, no points can be attributed.

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:

2

Score explanation:

The LUMC is ISO 50001 certified and has made several efforts to make their energy usage more sustainability through limiting energy usage through energy saving measures and by generating

renewable energy through solar panels, heat pumps and making use of the cold outside to cool the building when needed

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 LUMC is positioned right next to the Leiden Centraal train station and the Leiden Centraal bus station, making it easily accessible with public transport, something most students make use of. For the students that live close to the faculty plenty of safe places to store their bikes have been provided. The faculty can be accessed by car, though the students will have to pay a hefty amount for the parking costs. Additionally, LUGO (Leiden University Green Office) has provided a Sustainable Travel Guide, which has extended from local to international travelling.

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:

1

Score explanation:

According to the LUMC they have 37 different streams of waste, though not all are relevant for students. In the university side of the institute a distinction between “plastic”, “compost” and “other” is made, and these bins are accessible to all students. Not everything is recycled, as paper should currently be thrown out under “other” and doesn’t have an easily accessible place of disposal. Considering there are still improvements to be made, 1 is given as a score.

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 **adequate** sustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability. (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:

The LUMC is increasingly making efforts towards more sustainable food, though it is far from sufficient as of yet. Currently, plant based foods are available to a very moderate extent, and not all food is sourced locally.

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:

2

Score explanation:

Most procurements in the LUMC to some degree include sustainability, but the place in the procurement and the weight that is given to the theme greatly varies.

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
<i>Score explanation:</i> It is encouraged to take sustainability in mind, but it is not enforced. No clear guidelines are provided, though the LUMC does value sustainability. If possible, a 0.5 should be given, though to signify the need for improvement, a 0 is given.	

5.10. Does your <u>institution</u> 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
<i>Score explanation:</i> Leiden University has several green teams that focus on sustainable lab spaces with pilots for a LEAF certificate. This has not been tried for all labs yet.	

5.11. Does your <u>institution's</u> 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 LUMC is not transparent about this matter, so a 0 has been given as we don't have any proof they are divesting.

Section Total (14 out of 32)

43,8%

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The Green Deal Sustainable Healthcare is carried out by an organised effort with clear objectives. The efforts of the individual Green Teams helps achieve these objectives.

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%

Planetary Health Grades for the Leiden University School of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(37/72) \times 100 = 51,4\%$	C
Interdisciplinary Research (17.5%)	$(9/17) \times 100 = 52,9\%$	C
Community Outreach and Advocacy (17.5%)	$(3/14) \times 100 = 21,4\%$	D-
Support for Student-led Planetary Health Initiatives (17.5%)	$(6/15) \times 100 = 40.0\%$	C-
Campus Sustainability (17.5%)	$(14/32) \times 100 = 43,8\%$	C-
Institutional Grade	$(51,4 \times 0.3 + 52,9 \times 0.175 + 21,4 \times 0.175 + 40 \times 0.175 + 43,8 \times 0.175) = 43,09\%$	C-