



NURSING

Planetary Health Report Card (Nursing):

University of Minnesota - Twin Cities



SCHOOL OF NURSING

UNIVERSITY OF MINNESOTA

Driven to Discover®

2024-2025 Contributing Team:

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Land acknowledgment: We acknowledge that the University of Minnesota Twin Cities is built within the traditional homelands of the Dakota people. It is important to acknowledge the peoples on whose land we live, learn, and work as we seek to improve and strengthen our relations with our tribal nations. We also acknowledge that words are not enough. We must ensure that our institution provides support, resources, and programs that increase access to all aspects of higher education for our American Indian students, staff, faculty, and community members.

Summary of Findings

Overall Grade	A
Curriculum	A+
<p>The University of Minnesota School of Nursing scored 89% in Curriculum. Overall, the curriculum dedicates a significant amount of content to planetary health principles. Where the curriculum fell short is in the topics of planetary health related to mental health, pathophysiology of illness related to climate change, food and water insecurity and plant-based diets, as well as industry-related environmental toxins. While these topics are all discussed at points during the programs, there was no identifiable dedicated lecture or module related to these topics. Recommendations: Since the School of Nursing has a good foundation of core planetary health concepts in the curriculum already, they could incorporate these concepts into the existing content. They could include specific assessments and nursing interventions for the topics mentioned to make the knowledge practical rather than just theoretical.</p>	
Interdisciplinary Research	A+
<p>The University of Minnesota scored 100% on Interdisciplinary Research, with a dedicated Sustainability Office and staff, multiple faculty members dedicated to interdisciplinary and nursing planetary health research. The university engages the community as knowledge experts and decision makers, hosts multiple conferences, symposiums, and events for planetary health throughout the year, and holds memberships with national and international planetary health and sustainability organizations. Recommendations: Continuing momentum in this area could involve the university establishing a dedicated interdisciplinary research group focused on planetary health.</p>	
Community Outreach and Advocacy	A+
<p>The University of Minnesota School of Nursing (UMN SON) earned a 100% score in Community Outreach and Advocacy for Planetary Health, highlighting its strong commitment to environmental justice. The school partners with under-resourced communities affected by climate change, providing advocacy opportunities and hands-on learning for students. Recommendations: To build on this success, UMN SON can further integrate advocacy training, expand community-based learning, and encourage policy engagement. By continuing this work, the school reinforces its role in addressing planetary health while prioritizing equity and social justice.</p>	
Support for Student-Led Initiatives	A+
<p>The UMN SoN supports engaging with and promoting the work of students focused on planetary health. Examples include annual guest lectures, doctoral focuses of study, student groups, and fostering transdisciplinary partnerships. Recommendations: Further student support through the Center for Planetary Health and Environmental Justice. Provide additional opportunities for undergraduate nursing students. Develop a repository of student-led planetary health research, quality improvement projects, and a directory of planetary health-focused faculty across disciplines.</p>	
Campus Sustainability	B
<p>The University of Minnesota scored a 65% in campus sustainability. The university performed well in areas such as sustainable lab and building practices, travel options, recycling programs, and divestment. The university fell short in the categories for carbon neutrality goal, guidelines for supply chain procurement, and the ratio for renewable vs. non-renewable energy usage. Recommendations: The university has a lot of room for improvement in this category. In particular, they fell short by 10 years for their carbon neutrality goal. Other potential improvements could include instituting mandatory guidelines for sustainable purchasing of foods and supplies, event hosting, and increasing renewable energy usage.</p>	

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term “planetary health” to satisfy the metric.
- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 1. Describe how the environment and human health interact at different levels.
 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- **Nursing School/Department vs. Institution:** When “nursing school” is specified in the report card, this only refers to curriculum and resources offered by the School/department of nursing 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 nursing 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:** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.
- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Core Curriculum:** This refers to taught material that is 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 nursing school curriculum. The curriculum for nursing programs around the world shares many core topics regarding health and the medical system. In order to create a truly holistic education that includes the implications of our changing climate, the subject must be integrated into the nursing curriculum. As future frontline workers, nurses will experience the dire consequences of climate change firsthand and must be equipped to not only care for afflicted patients but to encourage preventative change. We are already seeing the impacts on human health that climate change can bring, and the nursing curriculum must reflect these realities.*

Questions with a “” next to them signify questions that are unique to the Nursing Planetary Health Report Card.*

1.1. Does your nursing school offer courses regarding the relationships between extreme weather events, health effects, 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
<p><i>Score explanation:</i> Multiple courses in the core curriculum for nursing at all levels (Bachelor of Science in Nursing, Master of Nursing, and Doctor of Nursing Practice) include modules that focus on the relationship between extreme weather, health effects, and climate. The course NURS 7200: Economics of Health Care specifically addresses the global impacts of the environment and health effects on the economics of health care. Other courses that explore this content include:</p> <p>NURS 6110 <i>Epidemiology in Nursing</i></p> <p>NURS 7604 <i>Executive Leadership Seminar: Boundary Spanning</i></p> <p>NURS 6600 <i>Health Systems and Care Models</i></p> <p>NURS 7230 <i>Advanced Nursing for Public, Population, and Planetary Health</i></p>	

1.2. Does your nursing program provide education regarding the impacts of extreme weather events (e.g. storm, flooding, heat, drought, air pollution) on individual 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:	3
<p><i>Score explanation:</i></p> <p>NURS 5030: <i>Foundational Concepts of Professional Nursing</i> explores the impacts of the environment on human health and vice versa.</p> <p>NURS 7400: <i>Health Policy Leadership</i> has several weeks devoted to climate change impacts on individual health.</p> <p>NURS 7610: <i>Nurses Leading Change and Innovation to Transform Healthcare</i> has several weeks devoted to planetary health concepts and consequences on human health. This course is taken by all doctoral students. Boyd, K. developed a module (Leading Emergency Preparedness Responses: Mitigation, Adaptation, and Resilience) for NURS 7610, which described the role nurses play in emergency management and disaster preparedness. Required reading addressed the socioeconomic and racial disparities of weather-related and climate change-induced disruptions. This course is required for all doctoral students.</p> <p>The Doctor of Nursing Practice (DNP) Health Innovation and Leadership (HIL) specialty has Planetary Health as a core pillar of its degree. Students can focus on Planetary Health as their area of study within the program.</p>	

1.3. Does your nursing curriculum address the impacts 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
<p><i>Score explanation:</i></p> <p>In the BSN program, VBS 2032: General Microbiology and NURS 4321: Public Health Nursing have some content on the relationship between climate change and infectious disease. These are required courses for the BSN program.</p> <p>NURS 6110: <i>Introduction to Epidemiology in Nursing</i> offers many resources and a whole module dedicated to environmental epidemiology and infectious disease.</p> <p>NURS 6881: <i>Introduction to Public Health Informatics and Information Systems</i> looks at tracking infectious diseases and their increased occurrence with climate change.</p>	

1.4. Does your nursing curriculum address pathophysiological health effects resulting from environmental degradation and climate change, including effects such as air, soil and water pollution, extreme heat, human-animal interactions, and emerging pathogens?

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 health effects resulting from a warming climate are addressed in the graduate course **NURS 5033: Population-Focused Health in Public Health and Mental Health Nursing**.

Guest lectures in **NURS 3806: Nurse as Professional** briefly covered pathophysiological health effects resulting from environmental degradation.

1.5. Does your nursing curriculum address mental health issues and well-being effects resulting from 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:

2

Score explanation:

Mental health issues such as climate anxiety and existential fear are covered in the core mental health psych courses both at the undergraduate and graduate levels in **NURS 4308: Psychiatric and Mental Health Nursing Concepts across the Lifespan** and **NURS 6802: Psychiatric/Mental Health Advanced Practice Nursing: Psychotherapy with Individuals and Families**.

There are multiple elective courses offered by the [Center for Spirituality and Healing](#) that address Planetary Health, mental health issues, and well-being.

1.6. Does your nursing curriculum address relationships between climate change, food and water security, and the impact on 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:

The undergraduate course **NURS 4321: Public Health Nursing** mentions food and water security, displaced populations, and impacts of climate change.

The DNP Health Innovation and Leadership program offers multiple courses that focus on these topics. However, it is unclear if other DNP specialties offer this same information.

1.7. Does your nursing program 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:

1

Score explanation:

There is mention of the importance of plant-based diets for health purposes through the BSN and MN programs. However, there is no course specifically, nor no identifiable lecture specifically focused on the environmental benefits of plant-based diets in the core curriculum.

There are two elective courses that focus on selecting food based on its health, environmental, and agricultural considerations: **CSPH 3301 Food Choices: Healing the Earth, Healing Ourselves** and **FSCN 2001 A Food Systems Approach to Cooking for Health and the Environment**.

1.8. Does your nursing school curriculum address relationships between ecosystem health, human 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:

Two core classes of the DNP Health Innovation and Leadership curriculum have several weeks devoted to climate change, ecosystem disruptions, and impacts on individual health.

NURS 7400: Health Policy Leadership and **NURS 7610: System Leadership and Innovation**.

There is also an elective course dedicated to this topic - **NURS 8212: Planetary Health: Cross-Cutting Principles for Nursing Research**.

However, there is no obvious information about this topic in the undergraduate program.

1.9. Does your nursing 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 point)

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

Score Assigned:

2

Score explanation:

Both the Women's Health and Family Practice DNP programs cover reproductive health effects due to environmental toxins in respective lectures.

NURS 7400: Health Policy Leadership also addresses the reproductive health effects (and other health effects) of environmental toxins from a policy perspective.

There was no evidence of the effects of environmental toxin and reproductive health education in undergraduate courses.

1.10. Does your nursing program emphasize the importance of Indigenous and Traditional Knowledge 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:

3

Score explanation:

The University of Minnesota School of Nursing has focused heavily on the inclusion of Indigenous voices and representation throughout the various doctoral programs. They developed the [Center for Indigenous People, Health, and Nursing](#), which has an objective to Indigenize curricula and increase the research opportunities for Indigenous students.

The undergraduate course **NURS 4704 Continuum of Care Practicum** has a module emphasizing the importance of culturally sensitive care for Indigenous populations (*Contemporary Health Concerns for Native American Healthcare*). Considering historical traumas, spiritual health, current health trends, and cultural healing.

The graduate level course **NURS 6600 Health Systems and Care Models** includes Indigenous practices for Planetary Health solutions, including cultural determinants of health and the IOM's *Leveraging Culture to Address Health Inequities*.

1.11. Does your nursing curriculum address important human-caused environmental threats that are relevant to the university or program'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:

3

Score explanation: Local environmental threats to the surrounding community are addressed in the undergraduate and graduate-level public health practicum courses. Students are required to conduct windshield surveys of the university's surrounding community. Students have practicum hours dedicated to meeting community members and addressing determinants of health, including environmental considerations.

Undergraduate level - **NURS 4321 Public Health Nursing**

Master of Nursing level - **NURS 5033 Public Health Nursing**

Doctor of Nursing level - **NURS 7230 Advanced Nursing for Public, Population, and Planetary Health** and **NURS 6110 Introduction to Epidemiology in Nursing**

1.12. Does your nursing curriculum address socioeconomic/racial disparities in extreme weather and climate change exposure?

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:

Boyd, K. developed a module (*Leading Emergency Preparedness Responses: Mitigation, Adaptation, and Resilience*) for **NURS 7610 System Leadership and Innovation** which described the role nurses play in emergency management and disaster preparedness. Required reading addressed the socioeconomic and racial disparities of weather-related and climate change-induced disruptions. This course is required for all doctoral students.

The course **NURS 7400 Health Policy Leadership** identifies environmental justice concerns related to climate change and, to some degree, extreme weather. There is also a policy brief assignment where students are able to select a topic of their choosing and write a publishable document for politicians. Some elect to write about environmental justice concerns.

The courses **NURS 4321 Public Health Nursing** (undergraduate level) and **NURS 5033 Public Health Nursing** (Master of Nursing level) include content about socioeconomic and racial disparities as it relates to public health. This includes the identification that marginalized populations are often first and worst affected by climate change impacts, including extreme weather.

1.13. Does your nursing curriculum address inequitable 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:

3

Score explanation: Multiple required courses in the doctoral programs address the global inequities of climate change (**NURS 6600 Health Systems and Care Models**, **NURS 5812 Global Health Through Study Abroad**, **NURS 7610 Nurses Leading Change and Innovation to Transform Healthcare**, **NURS 6881 Introduction to Public Health Informatics and Information Systems**).

Undergraduate course **NURS 3802** *Patient Centered Care: Nursing Care of Families* addresses social determinants of health, global inequities, and the role of climate change.

1.14. Does your nursing curriculum address climate and environmental health challenges that impact marginalized populations and communities?

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:

Boyd, K. developed a module (*Leading Emergency Preparedness Responses: Mitigation, Adaptation, and Resilience*) for **NURS 7610** *System Leadership and Innovation* which described the role nurses play in emergency management and disaster preparedness. Required reading addressed the socioeconomic and racial disparities of weather-related and climate change-induced disruptions. This course is required for all doctoral students.

The public health courses across all levels of nursing education (**NURS 4321** *Public Health Nursing*, **NURS 5033** *Public Health Nursing*, and **NURS 7230** *Advanced Nursing for Public, Population, and Planetary Health*) cover the impacts of the environment on health, especially the disparities experienced by marginalized populations. There is also brief coverage of the impacts of climate change on these communities.

NURS 7200 *Economics of Health Care* covers the economic theories surrounding global challenges supporting health care, including the impacts of climate and environmental health on marginalized populations.

NURS 7400 *Health Policy Leadership* addresses state and local-level disparities experienced by populations affected by climate and environmental health.

1.15. Does your nursing curriculum address the impact of environmental degradation due to climate change on marginalized populations and communities?

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: Multiple courses in the nursing curriculum address the effects of environmental degradation on marginalized populations. Courses include: **NURS 4321 Public Health Nursing**, **NURS 5033 Public Health Nursing**, and **NURS 7230 Advanced Nursing for Public, Population, and Planetary Health**, **NURS 7202 Moral and Ethical Positions and Actions in Nursing**, **NURS 4402 Taking Ethical Action in Health Care - Civic Life and Ethics**.

1.16. Does your nursing curriculum address the outsized impacts of anthropogenic environmental toxins on marginalized populations and communities?

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 School has a deep commitment to DEI that has been in place for several years. The Director of DEI for the School is very aware of the connection, and they regularly work in tandem on issues that relate to DEI and Planetary Health.

Both courses listed below extensively focus on the health impacts of air, land, and water pollution on marginalized communities.

NURS 6110 Introduction to Epidemiology in Nursing includes modules dedicated to social determinants of health and environmental epidemiology.

NURS 4321 Public Health Nursing contains content related to the disproportionate effects of environmental hazards on marginalized populations.

NURS 7400 Health Policy Leadership covers policies that have historically perpetuated the disproportionate impact of environmental hazards on marginalized populations as well as current political efforts to resolve this inequity.

Many other courses touch on global vulnerable communities, but these courses are specifically tailored to cover these topics.

1.17. Does your nursing curriculum address the impacts of extreme weather events 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
<p><i>Score explanation:</i></p> <p>Boyd, K. developed a module (<i>Leading Emergency Preparedness Responses: Mitigation, Adaptation, and Resilience</i>) for N7610, which described the role nurses play in emergency management and disaster preparedness. Required reading identified the impacts of extreme weather events on overburdened healthcare systems and the increase need for resources, services, and staff during and after a disaster. This course is required for all doctoral students.</p> <p>NURS 6110 <i>Introduction to Epidemiology in Nursing</i> includes content regarding the effects of extreme weather events and patterns on infectious disease and the impact on healthcare systems globally.</p> <p>NURS 4321 <i>Public Health Nursing</i> covers extreme weather on health and the healthcare system.</p> <p>NURS 6600 <i>Health Systems and Care Models</i> addresses various health systems and their weaknesses, including lack of preparedness for environmental disruptions.</p>	

1.18. Does your nursing program 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:	3
<p><i>Score explanation:</i></p> <p>The DNP HIL program has core pillars of Planetary Health, Global Perspective, and Design Thinking. The core curriculum for the HIL program identifies the role that the health care system plays in planetary degradation, including its carbon footprint.</p> <p>Physical waste and the carbon footprint of the healthcare sector are covered frequently in courses that involve practicums, simulations, or an introduction to the hospital system.</p> <p>Boyd, K. guest lectured to N3806 BSN students, identifying the carbon footprint of the healthcare system and its role in GHG emissions.</p>	

1.19*. Does your nursing program curriculum or coursework highlight the waste generated by healthcare provision?	
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
<p><i>Score explanation:</i> Physical waste and the carbon footprint of the healthcare sector are covered frequently in courses that involve practicums, simulations, or an introduction to the hospital system.</p> <p>Additionally, pharmacology courses (NURS 5228 <i>Pharmacology for Advanced Practice Nursing</i> and NURS 7004 <i>Advanced Nurse Anesthesia Practicum</i>) address the medicinal waste of the healthcare sector.</p>	

1.20*. Does your nursing program cover the contributions of pharmaceuticals to environmental degradation and climate change (e.g., anesthetic gases, inhalers, antibiotic resistance, etc.)?	
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
<p><i>Score explanation:</i> Both undergrad and graduate-level pharmacology (NURS 5228 <i>Pharmacology for Advanced Practice Nursing</i>, NURS 7004 <i>Advanced Nurse Anesthesia Practicum</i>, NURS 5007 <i>Pharmacology for Adult-Gerontology Acute Care Nurse Practitioner</i>, NURS 5227 <i>Pharmacology for Pediatric Nurse Practitioner - Acute Care</i>, NURS 5225 <i>Psychopharmacology Advanced Practice Psychiatric/Mental Health Nursing</i>) courses cover antibiotic resistance, inhalers, and anesthetic gas pollution.</p> <p>Boyd, K. guest lectured to N3806 BSN students, mentioning the pharmaceutical impacts of metered dose inhalers and pharmaceutical production environmental hazards. The correlated module involved social determinants of health (SDoH), including environmental degradation by pharmaceuticals.</p>	

1.21. Does your nursing school's curriculum introduce strategies for having conversations with patients, nursing home residents, visitors, and other health professionals about the health effects of climate change and other environmental disruptions?	
Yes, the core curriculum includes strategies for conversing with patients and other health professionals regarding climate change and environmental disruptions. (2 points)	
There are elective courses that include strategies for conversing with patients and other health professionals regarding climate change and environmental disruptions. (1 point)	

This topic was not covered. (0 points)	
Score Assigned:	2
<p><i>Score explanation:</i></p> <p>NURS 7400 Health Policy Leadership educates students on communicating with policymakers and advocating at the community level. There are a few weeks dedicated to climate change and environmental health.</p> <p>NURS 7102 Scholarly Dissemination in Advanced Nursing Practice provides students with the skills to disseminate their scholarly work to other professionals through journal manuscripts, poster presentations, and lectures. If a student has focused their doctoral projects on Planetary Health, climate change, or environmental disruptions, they learn the skills to communicate this.</p> <p>BSN, MN, DNP, and PhD programs were able to attend the Minnesota Department of Health and UMN SoN collaborative project on clinician communication with patients regarding climate change and health debut. (How to discuss the health impacts of climate change with patients in a clinical setting)</p>	

1.22. Does your school have an appointed faculty or staff responsible for planetary health and environmental nursing?	
Yes, the nursing program has at least one appointed faculty or staff responsible for planetary health and environmental nursing. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	1
<p><i>Score explanation:</i></p> <p>Teddie Potter, PhD, RN, FAAN - Director of Planetary Health, Director of the Center for Planetary Health and Environmental Justice</p> <p>Ryne Wilson, DNP, RN - Planetary Health, Environmental Nursing, and Oncology</p> <p>Angelica Walton, DNP, RN - Integrative Health, Planetary Health, and Community Nursing</p>	

1.23*. Does your program offer Interdisciplinary Education (IPE) simulations or experiences regarding the health risks of climate change and other environmental disruptions?	
Yes, the school of nursing has been involved with IPE simulations or experiences in the past year . (2 points)	
Yes, the school of nursing has been involved with IPE simulations or experiences in the past three years . (1 point)	
No, the school of nursing has not been involved with IPE simulations in the past three year. (0 points)	
Score Assigned:	2

Score explanation:

The SoN partners with the Institute on the Environment to offer, promote, and facilitate courses, grants for student initiatives, and webinars.

(<https://environment.umn.edu/people-planet-conversation-series/archive/>)

The School of Nursing hosts an annual Planetary Health Guest Lectureship which is open to the public.

Section Total (58 out of 65)

89%

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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 <u>institution</u>?	
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: Teddie Potter, PhD, RN, FAAN, FANP - Director of Planetary Health Ryne Wilson, DNP, RN - Planetary Health, Environmental Nursing, and Oncology Angelica Walton, DNP, RN - Integrative Health, Planetary Health, and Community Nursing Stephanie Gingerich, DNP, RN - Global Health, Translating Research/Accessibility	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?
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:	3
<p><i>Score explanation:</i></p> <p>The University of Minnesota has established a Center for Planetary Health and Environmental Justice with the intention to involve multiple disciplines. Currently, it is specific to the School of Nursing. The center's mission and vision are grounded in innovative research for mitigation and adaptation, sustainable health care practices, and supporting all life to flourish now and in the future.</p> <p>The University of Minnesota has established the Institute on the Environment (IonE) which supports research across disciplines. It develops leaders and partnerships to support a future of prosperity for both people and the planet. IonE offers a Certificate for Sustainable Environmental, Social, and Governance Leadership. It is an interdisciplinary graduate-level program.</p> <p>The Institute for Advanced Study offers multiple interdisciplinary fellowships and funding for interdisciplinary projects and research. Within the Institute, addressing environmental stewardship and systemic change (such as Planetary Health) is prioritized.</p>	

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 points)	
There is no process, and no efforts to create such a process. (0 points)	
Score Assigned:	3
<p><i>Score explanation:</i></p> <p>Currently, the SoN has advisory committees with representatives from the community. The Center for Indigenous People allows for a voice and collaboration with an underserved population.</p> <p>The Sustainable GeoCommunities program brings together experts from a wide range of disciplines, community leaders, and residents to use geodesign principles to tackle the problems within a given community that could range from lack of clear air or water, to lack of systems for processing the waste.</p>	

2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?

There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (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:

3

Score explanation:

The University of Minnesota's [Institute on the Environment](#) website centralises ongoing and past research related to health and the environment, and has pages for initiatives, leadership, events, and donation.

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/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:

4

Score explanation:

The University of Minnesota hosts many events throughout the year regarding Planetary Health. Interdisciplinary faculty and students engage in various scheduled conferences, symposiums, and publications that promote and educate about planetary health. Among them is the School of Nursing's [Annual Planetary Health Guest Lectureship](#), [Grand Rounds](#), [Climate Policy Series](#), and [Food Waste to Animal Feed: A Virtual International Conference](#). The university is also a partner in hosting the Health Professionals for a Health Climate event, [Annual Code Blue for Patient Earth Conference](#). The Institute on the Environment is hosting the [2025 Sustainability Symposium](#) on Friday, April 11, 2025.

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:

Multiple schools, centers, and institutes of the University of Minnesota are members of national and interdisciplinary planetary health organizations. The University of Minnesota Schools Nursing, Public Health, and Medicine and the Center for Global Health and Social Responsibility are members of the [Global Consortium on Climate Health Education](#). The University's School of Nursing and the Institute on the Environment are members of the [Planetary Health Alliance](#).

Section Total (17 out of 17)

100%

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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 **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 has participated 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: Yes. UMN SoN has meaningful partnerships with local planetary organizations such as Clinicians for Planetary Health initiative, Hennepin Healthcare, Health Professionals for a Healthy Climate.

<https://hpforhc.org/?s=umn>

<https://nursing.umn.edu/news-events/nln-honors-school-climate-change-leadership>

<https://nursing.umn.edu/news-events/climate-crisis-sparks-nurse-innovation>

<https://nursing.umn.edu/news-events/when-climate-activism-inseparable-health-care-calling>

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/medical school** have not offered such community-facing courses or events. (0 points)

Score Assigned:

3

Score explanation: Yes, the Institute on the Environment (IonE) offers interprofessional experiences to address sustainable health care such as the [sustainability symposium](#) annually. It is open to any, across the entire campus system. This will be held April 11, 2025.

Additionally, the School of Nursing offers a Planetary Health Lectureship. Lyla June Johnston, PhD, delivered the 4th annual Planetary Health Lectureship Remembering our Ecological Purpose: Indigenous Food Systems and the Promise of Homo Sapiens, which detailed Indigenous food systems and advocated for a mind shift to better tend the land.

<https://nursing.umn.edu/news-events/johnston-delivers-planetary-health-lectureship-indigenous-food-systems>

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:

2

Score explanation: Yes. Monthly planetary health newsletters are sent from Dr. Teddie Potter to all SoN students and faculty. Inside Nursing is a semi-annual magazine that includes planetary health updates. Ex. Yvonne Mongare attended COP28 and shared experience to BSN students through social media on the importance of the intersection of climate and health as a future nurse.

https://issuu.com/schoolofnursing/docs/minnesota_nursing_magazine_spring_summer_2024

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:

2

Score explanation:

Continuing Education and Professional Development:

Climate Change and Health: An Interprofessional Response Curriculum: This set of nine short slide decks is designed to introduce health professionals to the connection between climate change and health. Instructors and programs can integrate these materials into existing courses to emphasize the importance of sustainability in healthcare.

<https://clinicalaffairs.umn.edu/about/initiatives/planetary-health-and-sustainability>

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 medical centres have accessible educational materials for patients. (0 points)

Score Assigned:

2

Score explanation: Yes. M Health Fairview has published the article titled "Lung cancer can affect anyone – here's what you should know" discusses environmental factors like radon and smog that can increase the risk of lung cancer.

<https://www.mhealthfairview.org/blog/what-to-know-about-lung-cancer>

Hennepin Healthcare, an affiliate hospital shared The "Climate Action Plan" document addresses the health impacts of air pollutants, such as ozone, particulate matter, and allergens, highlighting their respiratory and cardiovascular threats in Hennepin County.

<https://www.hennepinhealthcare.org/wp-content/uploads/2021/06/Exhibit-B1-hennepin-county-climate-action-plan-final.pdf>

The University of Minnesota Medical School also participates in the Planetary Health Report Card.

https://phreportcard.org/wp-content/uploads/2023/04/University-of-Minnesota-Medical-School_2023_MED.pdf

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 **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

Score explanation: Yes, The Minnesota Department of Health, in collaboration with the University of Minnesota's School of Nursing, has produced a video titled "How to discuss the health impacts of climate change with patients in a clinical setting." This resource demonstrates best practices for patient-provider conversations about personal health risks related to climate change.

<https://globalhealthcenter.umn.edu/climate-change-and-health-curriculum>

University of Minnesota Medical School and its affiliated hospitals provide accessible educational materials for patients regarding the health impacts of climate change. A notable example is the development of animated short videos designed to effectively communicate environmental health information. These videos have been shown to enhance understanding among health professionals and are intended for future use as patient education tools.

<https://med.umn.edu/news/research-finds-animated-short-videos-are-effective-sharing-environmental-health-information>

Section Total (15 out of 15)

100%

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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 <u>institution</u> offer support for students interested in enacting a sustainability initiative/QI project?	
Yes, the institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum. (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, neither the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	2
<p><i>Score explanation:</i> UMN SOM recently announced \$100,000 of funding for student <u>Climate Change Grants</u>. Many schools also have grants for student sustainability projects, such as the UC system's <u>Carbon Neutrality Initiative Student Fellowship Program</u>, Penn's <u>Green Fund Grant</u>, and McGill's <u>Sustainability Projects Fund</u>. In the UK, King's College London fourth-year quality improvements projects (QIP) have a mandatory sustainability section to be fulfilled. There are a comprehensive range of resources to support students when designing and measuring sustainability outcomes, and it is an examinable learning objective. Students have the opportunity to present their QIP findings at a locally run conference. One of the prize categories for 2020 was best 'Sustainable Project', recognising and rewarding projects that demonstrated an excellent understanding of the principles of sustainable healthcare.</p>	

4.2. Does your <u>institution</u> 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:	2

Score explanation: Students in the Health Innovation and Leadership DNP program can choose to focus on Planetary Health and are encouraged to do a DNP project in this area.

Some faculty at the School are involved in research such as nature-based therapeutics and healthy eating for a healthy planet. PhD candidates who want to do research in these areas and undergraduates wanting to explore these areas are gaining mentorship from these research faculty.

An elective course categorized NURS 8212-["Planetary Health: Cross-Cutting Principles for Nursing Research"](#) is being offered with the course description as follows: "Ecosystem transformations due to human activity have a serious impact on global health. Students will analyze scientific evidence and discuss ethics about the effects of ecosystem changes on human health. Opportunities for nursing research and theory development to promote planetary health will be identified."

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 medical school, 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:

2

Score explanation: Yes. Hosted by the School of Nursing, this center focuses on educating future planetary health leaders, promoting planetary health practices, and advancing innovative research. The webpage offers insights into ongoing projects and contact information for key personnel, such as Dr. Teddie Potter, the Director of Planetary Health.

<https://nursing.umn.edu/centers/center-planetary-health-and-environmental-justice/center-planetary-health-and-environmental>

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 medical school dedicated to planetary health or sustainability in healthcare. (2 points)

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

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: Yes. University of Minnesota Medical School Health Students for a Healthy Climate (HSHC) is an interdisciplinary student group aimed at advancing sustainability initiatives within the health professional schools. The group receives annual seed money through the Center for Health Interprofessional Programs (CHIP), and is supported by a faculty mentor.

Public-Health Advocacy Student Alliance (PHASA) is another health-care interprofessional student group that empowers students to improve health disparities through policy and advocacy measures. To do so, PHASA hosts education sessions on public health topics, facilitates community engagement opportunities, collaborates with professionals to influence policy, and shares up-to-date information about how to get involved in advocacy opportunities, including on planetary health. They are supported by a faculty member as well.

<https://www.chip.umn.edu/students/student-organizations>

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 that serves on a department or institutional decision-making council/committee. (1 points)

No, there is no such student representative. (0 points)

Score Assigned:

1

Score explanation: Yes, the University of Minnesota (UMN) involves students in sustainability-related decision-making processes. Notably, the Twin Cities Sustainability Committee, established in fall 2021, includes student representatives who collaborate with faculty and staff to advance sustainability initiatives. This committee focuses on climate action planning, aiming to reduce greenhouse gas emissions and enhance the university's resilience to climate change.

Student representative in Sustainability Committee:

Aisha Hersi - Undergraduate student, College of Liberal Arts

Anna Wollaeger - Undergraduate student, College of Biological Sciences

<https://sustainable.umn.edu/sustainability-committee>

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.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	1
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	1
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	1
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1
<p><i>Score explanation:</i></p> <ol style="list-style-type: none"> 1. Student Organic Farm (Cornercopia): This student-driven, certified organic farm on the St. Paul Campus provides hands-on opportunities for students to engage in planning, growing, and marketing organic produce. misa.umn.edu 2. Panels, Speaker Series, or Similar Events Related to Planetary Health: <ul style="list-style-type: none"> • People & Planet Series: Hosted by the Institute on the Environment, this series includes events such as discussions on climate change impacts around Lake Superior, featuring experts like Jay Austin and Steve Shier. events.tc.umn.edu 3. Events with Local Environmental Justice Communities: <ul style="list-style-type: none"> • Community Environmental Justice Expo: As part of Earth Month 2023, this expo connected university students with community members and organizations in the Twin Cities area focused on environmental justice and climate action. The Institute on the Environment also holds an annual sustainability symposium open to faculty, staff, students and community members to present. sustainable.umn.edu 4. Cultural Arts Events Related to Planetary Health: <ul style="list-style-type: none"> • Environmental Humanities Symposium: This event explored the intersection of German studies with environmental humanities, aiming to broaden the impact of projects and expand scholarly networks. envhum.umn.edu 	

5. Local Volunteer Opportunities Related to Community Resilience:

- **Environmental Student Association (ESA):** ESA organizes weekly meetings and events, including volunteering opportunities, to engage students in environmental stewardship and community resilience projects.
reports.aashe.org

6. Wilderness or Outdoors Programs:

- **Environmental Student Association (ESA) Camping Trips:** ESA organizes camping trips, providing students with opportunities to engage in outdoor activities and connect with nature.
reports.aashe.org

Section Total (15 out of 15)

100%

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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
<p><i>Score explanation:</i></p> <p>Yes, the University of Minnesota has an Office of Sustainability with salaried staff dedicated to campus sustainability.</p> <p>Yvonne Mongare works as the Climate Resilience Public Health Task Force Coordinator with a focus on vulnerable populations such as Hospital Patients.</p>	

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/medical school does not meet any of the requirements listed above (0 points)	
Score Assigned:	0
<p><i>Score explanation:</i></p> <p>The University of Minnesota has a written and approved plan, but the goal for carbon neutrality is set for 2050.</p>	

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:

The University of Minnesota (Twin Cities campus) [energy use for 2023](#) was comprised of 3,902,252 gigajoules of non-renewable energy and 509,007 gigajoules of renewable energy; this calculates to approximately 11.5% of the university's energy coming from renewable energy.

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:

3

Score explanation:

According to the [Climate Action Plan](#) (2023, p. 31), the first goal addressing Energy Demand, all new construction and major renovations must meet sustainable building design standards and net zero operating requirements.

[Sustainable Campus](#) site states: "Sustainability is a priority in new construction and major renovations on campus." (Capital Project Management). The site also states "Lighting retrofits and projects implemented over the past few years have been to upgrade fluorescent lighting to LED lighting which accounted for 50% of University energy savings in 2021. Nearly 70% of campus has been converted to LED lighting" (Clean Energy & Energy Efficiency).

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:

Yes, the University of Minnesota's Sustainable Campus site highlights the school's [environmentally friendly transportation](#) options, including a bike-friendly campus, campus buses and metro transit passes, vehicle sharing, and the electrification of the school's fleet vehicles.

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 medical school. (0 points)

Score Assigned:

2

Score explanation:

Yes, the University of Minnesota has both [compost and recycling programs](#).

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 [University of Minnesota Sustainable Campus website](#) outlines the sustainable practices of M Food Co and Chartwells, the two companies that operate dining facilities and food services. They are committed to purchasing sustainable and ethically sourced food, and enabling students to make informed dining decisions (Dining Services: M Food Co).

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:

The university's [Climate Action Plan](#) contains recommendations for procurement of some supplies (electric vehicles, new construction and renovation materials) but these are not specific or required. However, the university is very engaged in increasing sustainability across all departments.

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:

1

Score explanation:

The university's Institute on the Environment has a page dedicated to "[Event Engagement & Sustainable Resources](#)" (Events, Partnership Opportunities). There is also a link to a "[Zero Waste](#)" [page](#) that lists sustainable vendors, caterers, and compostable products. In order for an event to be considered "Zero Waste", all supplies must be recyclable, reusable, or compostable and must be 90% trash-free. However, these are not mandatory.

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:

2

Score explanation:

The Office of Sustainability has worked with the Biochemistry, Molecular Biology, and Biophysics researchers and staff to create the [Green Labs Program](#). The program's goals include increasing awareness and engagement with sustainable lab practices and decreasing the carbon footprint of the lab.

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:	4
<p><i>Score explanation:</i></p> <p>In response to campaigns from students and staff, the University of Minnesota began divestment from fossil-fuel companies in 2021. The university ceased new investments in “funds that invest heavily in fossil fuel extraction or processing. At this time, they are listed as a fully divested organization on the Global Fossil Fuel Divestment Commitment Database and the Climate Action Plan outlines goals to invest in more renewable energy sources.</p>	
Section Total (21 out of 32)	
65%	

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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%

Planetary Health Grades for the University of Minnesota School of Nursing

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$58/65 \times 100 = 89\%$	A
Interdisciplinary Research (17.5%)	$(17/17) \times 100 = 100\%$	A+
Community Outreach and Advocacy (17.5%)	$(14/14) \times 100 = 100\%$	A+
Support for Student-led Planetary Health Initiatives (17.5%)	$(15/15) \times 100 = 100\%$	A+
Campus Sustainability (17.5%)	$(21/32) \times 100 = 65\%$	B
Institutional Grade	$(89 \times 0.3 + 100 \times 0.175 + 100 \times 0.175 + 100 \times 0.175 + 65 \times 0.175) = 90.6\%$	A

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which **The University of Minnesota School of Nursing** has participated in the Planetary Health Report Card initiative.

