



---

# Planetary Health Report Card (Nursing):

*University of Minnesota, School of Nursing*

---



2022-2023 Contributing Team:

- Students: Bjorgaard, J. (DNP-'24), Boyd, K. (DNP-'24), & Mueller, B. (DNP-'25)
- Faculty Mentors: Teddie Potter, PhD, RN, FAAN
- Primary Contact: Boyd, K., [boydx264@umn.edu](mailto:boydx264@umn.edu)

# Summary of Findings

Overall	A
<u>Curriculum</u>	B+
<ul style="list-style-type: none"> <li>Planetary health curriculum is a work in progress for the UMN School of Nursing (SoN). There is clearly a strong desire to incorporate planetary health topics throughout all programs at the School. The strongest evidence is in its adoption of planetary health core principles in curriculum, electives, planetary health as a core pillar of the Health Innovation and Leadership program, and the extracurricular events hosted by the SoN's Director of Planetary Health.</li> <li><b>Recommendations:</b> Once the SoN creates new curriculum that incorporates planetary health as a core concept, this grade will increase to an A.</li> </ul>	
<u>Interdisciplinary Research</u>	A
<ul style="list-style-type: none"> <li>The SoN has clearly identified interdisciplinary research and collaboration in planetary health as a priority. The Director of Planetary Health continues to foster strong interdisciplinary work and scholarly dissemination of planetary health initiatives.</li> <li><b>Recommendations:</b> As the SoN continues to prioritize planetary health, it should look for more opportunities to engage with fields outside of healthcare to maximize the positive effects of this work.</li> </ul>	
<u>Community Outreach and Advocacy</u>	A-
<ul style="list-style-type: none"> <li>The SoN has developed and promoted strong relationships with many professional and community organizations to advance planetary health initiatives, identifying the SoN as a leader in the national nursing planetary health community.</li> <li><b>Recommendations:</b> As a leader in this space, the SoN should build additional partnerships with other nursing programs regionally, nationally, and internationally to maximize their advocacy and outreach efforts.</li> </ul>	
<u>Support for Student-Led Initiatives</u>	A
<ul style="list-style-type: none"> <li>A majority of the student-led planetary health initiatives are available through the School's DNP and PhD programs. There are also opportunities for students of any health program to join the interprofessional group Health Students for a Health Climate.</li> <li><b>Recommendations:</b> There are opportunities for the SoN to incorporate student-led sustainable food practices and "leave no trace" principles into programs and curriculum.</li> </ul>	
<u>Campus Sustainability</u>	C+
<ul style="list-style-type: none"> <li>The University's sustainability plan is outdated and no longer meets the advice given by the IPCC. The sustainability team is meeting in 2023 to update their goals for 2030 and beyond.</li> <li><b>Recommendations:</b> Especially given the new 100% bill, signed into Minnesota law earlier this year, the University needs to take a strong stance to reach carbon neutrality by 2030.</li> </ul>	

# Statement of Purpose

*Planetary health is human health.*

As they prepare to enter the largest workforce in healthcare, nursing students are uniquely positioned to confront the challenges of climate change in the arena of human health. While the format and curriculum in nursing may vary between programs, degrees, and nationalities, the core tenets of planetary health can and must be integrated throughout the nursing education. The role of the nurse is one of the most unique and multi-faceted; from the bedside to research, nurses have the ability to enact real change at many levels. With these potential impacts in mind, the ramifications of pollution, extreme weather, vector-borne diseases, unsustainable agriculture, and rising sea levels must be addressed in the nursing curriculum. Equally important, the socioeconomic and disproportionately affected communities of these manifestations must also be included in nursing education.

## **Goals:**

- Operate as a gap analysis for nursing programs to identify planetary health strengths and opportunities for growth.
- Assemble synthesized, program-specific information on planetary health resources useful for faculty, staff, and students.
- Facilitate sharing of planetary health resources across programs.
- Track progress in implementing and optimizing planetary health curriculum and resources.
- Advance the global planetary health movement in pursuit of a healthier and more equitable world.
- Utilize as a long-term metric that accounts for improvements and opportunities for growth continuously each year.
- Highlight successes and collaborations regarding planetary health in institutions through thorough evaluation of metrics.

# 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.
- **Sustainability:** the principle of creating and maintaining conditions under which humans and nature can exist in productive harmony to support present and future generations (Environmental Protection Agency, 2021).
- **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.
- **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).
- **Nursing program:** any pre-licensure program responsible for the training of professional nurses

# 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 share 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 first hand, 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.*

## Curriculum: General

<b>1. Does your nursing school offer courses/extracurricular activities regarding the relationships between extreme weather events and climate change?</b>	
<b>2</b>	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> The SoN hosts a yearly <a href="#">guest lectureship</a> featuring a speaker who works in the planetary health realm.</p> <p>The UMNSoN also supports and co-hosts the <a href="#">Code Blue for Patient Earth conference</a>, held in April of 2022.</p> <p>The <a href="#">Climate Change and Health Curriculum</a> is available on the Planetary Health website for anyone to use, but is not embedded in the nursing curriculum.</p> <p>The <a href="#">Planetary Health Educational Framework &amp; AACN Essential Crosswalk Tool</a> is also available for any program interested.</p>	

<b>2. Does your program provide education regarding the impacts of extreme weather events, e.g. storm, flooding, heat, drought, air pollution, on individual health?</b>	
<b>2</b>	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* N5030 Foundational Concepts of Professional Nursing explores the impacts of the environment on human health and vice versa.

N7400 Health Policy Leadership has several weeks devoted to climate change impacts on individual health.

N7610 System Leadership and Innovation has several weeks devoted to planetary health concepts and consequences on human health.

N8121 Health Behaviors and Illness Responses

The SoN continues to work toward integrating Planetary Health as a core concept in the curriculum for all levels of education. Finalization of this integration is set to begin Fall 2023.

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.”

**3. Does your program include education regarding mental health issues and well-being effects resulting from environmental degradation due to extreme weather events in education material?**

2	This topic was explored in depth by the core curriculum.
<b>1</b>	<b>This topic was briefly covered in the core curriculum.</b>
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* There is an elective course [CSPH 5000: Nature Rx: People, Plants, and Planetary Health](#) with the course description: “The body of scientific evidence demonstrating the ways in which nature connection impacts human health and wellbeing is expanding across disciplines at a rapid rate.”

In the DNP Psych Mental Health program, faculty address eco-anxiety and existential fear due to exacerbated climate events.

**4. Does your nursing curriculum address impacts of climate change on the changing patterns of infectious diseases?**

<b>2</b>	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.

N/A	Not applicable to this program.
<p><i>Score explanation:</i> In the BSN program, microbiology (VBS 2032) and Public Health Nursing (N 4321) has some content on the relationship between climate change and infectious disease. These are required courses for the BSN program.</p> <p>N6110 Introduction to Epidemiology in Nursing offers many resources and a weeks worth of study to environmental epidemiology and infectious disease.</p> <p>N6881 Introduction to Public Health Informatics and Information Systems looks at tracking infectious diseases and their increased occurrence with climate change.</p>	

<b>5. Does your nursing curriculum address pathophysiological health effects resulting from climate change, including effects such as air, soil and water pollution?</b>	
2	This topic was explored in depth by the core curriculum.
<b>1</b>	<b>This topic was briefly covered in the core curriculum.</b>
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> The health effects resulting from a warming climate are addressed in the undergraduate course NURS 5033.</p>	

<b>6. Does your nursing curriculum address mental health issues and well-being effects resulting from environmental degradation due to climate change?</b>	
2	This topic was explored in depth by the core curriculum.
<b>1</b>	<b>This topic was briefly covered in the core curriculum.</b>
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> The mental health issues such as eco-anxiety and existential fear are covered in the mental health psyche courses both at the graduate and undergraduate levels (N6802 &amp; N6803).</p>	

**7. Does your nursing curriculum address relationships between climate change, food and water security and the impact on health?**

2	This topic was explored in depth by the core curriculum.
<b>1</b>	<b>This topic was briefly covered in the core curriculum.</b>
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* Food and water security, displaced populations, and impacts of climate change are mentioned in the undergraduate public health course.

**8. Does your nursing curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?**

2	This topic was explored in depth by the core curriculum.
<b>1</b>	<b>This topic was briefly covered in the core curriculum.</b>
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* The [Climate Change and Health Curriculum](#) is available on the Planetary Health website for anyone to use, but is not embedded in the nursing curriculum.

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

**9. Does your nursing curriculum address important human-caused environmental threats that are relevant to the university or program's surrounding community?**

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
<b>0</b>	<b>This topic was not covered.</b>
N/A	Not applicable to this program.

*Score explanation:* No courses were identified that specifically mentioned environmental threats relevant to the university or surrounding community.



**10. Does your nursing school curriculum address relationships between ecosystem health and climate change?**

<b>2</b>	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* N7400 Health Policy Leadership has several weeks devoted to climate change, ecosystem disruptions, and impacts on individual health.

N7610 System Leadership and Innovation has several weeks devoted to planetary degradation and climate change and consequences on human health.

**11. Does your nursing curriculum address impacts of extreme weather events on healthcare systems?**

2	This topic was explored in depth by the core curriculum.
<b>1</b>	<b>This topic was briefly covered in the core curriculum.</b>
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* N4321 Public Health Nursing covers extreme weather on health and the healthcare system.

N6600 Health Systems and Care Models addresses various health systems and their weaknesses, including environmental disruptions.

**12. Does your nursing curriculum address socioeconomic/racial disparities in extreme weather exposure?**

<b>2</b>	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.

N/A	Not applicable to this program.
<p><i>Score explanation:</i> 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.</p> <p>N4321 Public Health Nursing</p> <p>N6931 Health Equity and Social Justice</p> <p>N7400 Health Policy Leadership</p> <p>N7507 Health Leadership for Fam Nurs Practitioners</p> <p>Many other courses touch on socioeconomic and racial disparities in extreme weather exposure, but these courses are specifically tailored to health disparities and outcomes.</p>	

<b>13. Does your nursing curriculum address inequitable health impacts of climate change globally?</b>	
<b>2</b>	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> 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.</p> <p>N4321 Public Health Nursing</p> <p>N6931 Health Equity and Social Justice</p> <p>N7200 Economics of Health Care</p> <p>N7400 Health Policy Leadership</p> <p>N7507 Health Leadership for Fam Nurs Practitioners</p> <p>Many other courses touch on socioeconomic and racial disparities, but these courses are specifically tailored to cover these topics.</p>	

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

<b>2</b>	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> 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.</p> <p>N4321 Public Health Nursing</p> <p>N6931 Health Equity and Social Justice</p> <p>N7200 Economics of Health Care</p> <p>N7400 Health Policy Leadership</p> <p>N7507 Health Leadership for Fam Nurs Practitioners</p> <p>Many other courses touch on socioeconomic and racial disparities, but these courses are specifically tailored to cover these topics.</p>	

<b>15. Does your nursing curriculum address the impact of environmental degradation due to climate change on marginalized populations and communities?</b>	
<b>2</b>	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> 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.</p> <p>N4321 Public Health Nursing</p> <p>N6931 Health Equity and Social Justice</p> <p>N7200 Economics of Health Care</p> <p>N7400 Health Policy Leadership</p>	

N7507 Health Leadership for Fam Nurs Practitioners

Many other courses touch on socioeconomic and racial disparities, but these courses are specifically tailored to cover these topics.

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

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

*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.

N4321 Public Health Nursing

N6931 Health Equity and Social Justice

N7400 Health Policy Leadership

N7507 Health Leadership for Fam Nurs Practitioners

Many other courses touch on socioeconomic and racial disparities, but these courses are specifically tailored to cover these topics.

**17. Does your nursing program specifically have planetary health as part of its mission and/or values?**

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* Yes, the school of nursing [vision](#) is “Optimal health and well-being for all people and the planet.”

**18. Does your school have an appointed faculty or staff responsible for planetary health and environmental nursing?**

2	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* The University of Minnesota School of Nursing appointed [Dr. Teddie Potter as the first Director of Planetary Health](#); she has held the role since 2019.

**19. Does your nursing school's curriculum introduce strategies for having conversations with patients, nursing home residents, visitors and other health professions about the health effects of climate change and other environmental disruptions?**

2	This topic was explored in depth by the core curriculum.
1	<b>This topic was briefly covered in the core curriculum.</b>
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* In simulations, students can include educating patients about the health effects of climate change and other planetary disruptions. However, to our knowledge, there are no courses addressing strategies for having these conversations.

N7610 does provide instruction on how to write scholarly articles regarding planetary health.

**20. Does your nursing program curriculum or coursework highlight the waste generated by healthcare provision?**

2	<b>This topic was explored in depth by the core curriculum.</b>
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

*Score explanation:* 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. Additionally pharmacology addresses the medicinal waste of the healthcare sector.

**Section Total (31 out of 40)**

**Grade: B+**

## Interdisciplinary Research

***Section Overview: 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 medical field. As institutions tasked with creating the next generations of nurses and advanced practitioners, nursing schools should fund and support research studying the health effects of climate change. Furthermore, it is imperative for the health systems in which the nursing schools exist to encourage interdisciplinary cowork between the nursing, medical, pharmacy, and allied health schools to further the efficacy of research and education.***

1. Are there researchers or faculty engaged in planetary health research and/or healthcare sustainability research or scholarship at your nursing program's institution?	
2	<b>Yes, there are faculty members at the school of nursing who are conducting research related to planetary health and/or healthcare sustainability research or scholarship.</b>
1	There are planetary health and/or healthcare sustainability researchers at the institution, but none are associated with the school of nursing.
0	There are no planetary health and/or healthcare sustainability researchers at the institution at this time.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> Dr. Teddie Potter, Director of Planetary Health for the UMN School of Nursing has engaged in extensive scholarship in planetary health  <a href="https://nursing.umn.edu/faculty/teddie-potter">https://nursing.umn.edu/faculty/teddie-potter</a></p> <p>There are also many graduate and undergraduate students that are building a scholarship portfolio in planetary health supported by the UMN SoN faculty.</p> <p>Additionally, there are many alumni of the SoN that are working in areas of Planetary Health.</p>	

2. Does your nursing program support scholarly dissemination on topics of planetary health (e.g., peer-reviewed publications, conference presentations, abstracts, etc.)?	
2	<b>Yes, faculty members and/or students at the school of nursing have been involved with scholarly dissemination on topics of planetary health.</b>
1	Faculty members and/or students have been involved with scholarly dissemination on topics of planetary health, but none are associated with the school of nursing.
0	No, faculty members and/or students have not been involved with scholarly dissemination on topics of planetary health.

N/A	Not applicable to this program.
<p><i>Score explanation:</i> The UMN SoN has hosted several planetary health programs that showcase scholarly work of the School and its supporters  <a href="#">In it Together: Promoting Planetary Health</a>  <a href="#">Inspiring Change by Living Sustainably</a>  <a href="#">UMN SON Planetary Health Pledge</a></p> <p>Teddie Potter, PhD Director of Planetary Health for the UMN School of Nursing has engaged in extensive scholarship in planetary health  <a href="https://nursing.umn.edu/faculty/teddie-potter">https://nursing.umn.edu/faculty/teddie-potter</a></p> <p>Crosswalk Tool- Belgrade, K., Boyd, K., Mueller, B., &amp; Thone, M.  PHRC Nursing Pilot- Wilson, R., Bjorgaard, J., Boyd, K., Driscoll, M., &amp; Mueller, B.  Climate Action Guide for Nurses- Belgrade, K.</p> <p>Various alumni work from previous years.</p>	

<b>3. Is there a process by which communities or patients disproportionately impacted by climate change and environmental injustice can give input or make decisions about the research agenda at your nursing program's institution?</b>	
2	<b>Yes, there is a process in which community members impacted by climate and environmental injustice can advise or make decisions about the research agenda.</b>
1	No, but there are current efforts to establish a process for community members to advise or make decisions on the research agenda.
0	There is no process, and no efforts to create such a process.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> Most research projects at the School have some form of advisory committee from the community.</p> <p>Related to Planetary Health, the Director is working with Northside Healing Space and Liberty Community Church both in the African American community and with Leah Prussia and other indigenous scholars from the Ojibway Nation in Northern Minnesota.</p>	

<b>4. Does your nursing program's institution have a planetary health website, or a website centralizing various program resources related to health and the environment?</b>	
2	<b>There is an easy-to-use, adequately comprehensive website that centralizes various campus resources related to health and the environment.</b>
1	The institution has an Office of Sustainability website that includes some resources related to



	health and the environment, but it is not updated or is not adequately comprehensive.
0	There is no website.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> Yes, the <a href="#">UMN SON Planetary Health Website</a> has resources from both the University and supporting organizations. The website is continuously updated with new events and resources related to planetary health.</p>	

<b>5. Has your nursing program's institution recently hosted a conference or symposium on topics related to planetary health?</b>	
2	<b>Yes, the school of nursing or institution has hosted at least one conference or symposium on topics related to planetary health in the past year.</b>
1	Yes, the school of nursing or institution has hosted at least one conference or symposium on topics related to planetary health in the past three years.
0	No, the school of nursing or institution has not hosted a conference on topics related to planetary health in the past three years.
N/A	Not applicable to this program.
<p><i>Score explanation:</i></p> <p><a href="#">Code Blue for Patient Earth</a> in April of 2022. The conference had two sessions. The first session was in-person and focused on political advocacy regarding climate change and planetary health. The second session had panels surrounding the topics, mental health due to climate change, environmental and social justice, and decarbonizing healthcare.</p> <p>Upcoming <a href="#">Planetary Health Guest Lectureship</a> with Kelsey Wirth, board chair and co-founder of Mothers Out Front.</p>	

<b>6. Has your nursing program joined the Alliance for Nurses for Healthy Environments, the Planetary Health Alliance, the Global Consortium on Climate and Health Education, or the Nursing Climate Challenge?</b>	
2	<b>Yes, the school of nursing has joined more than one of these groups.</b>
1	Yes, the school of nursing has joined one of these groups.
0	No, the school of nursing has not joined any of these groups.
N/A	Not applicable to this program.

*Score explanation:* The UMN SON has joined and actively promotes the Alliance for Nurses for Health Environments, the Planetary Health Alliance, the Global Consortium on Climate and Health Education, and the Nursing Climate Challenge.

**7. Does your program offer Interdisciplinary Education (IPE) simulations or experiences regarding the health risks of climate change and other environmental disruptions?**

2	Yes, the school of nursing has been involved with IPE simulations or experiences in the past year.
1	<b>Yes, the school of nursing has been involved with IPE simulations or experiences in the past three years.</b>
0	No, the school of nursing has not been involved with IPE simulations in the past three years.
N/A	Not applicable to this program.

*Score explanation:* GCC 3031/5031: The Global Climate Challenge: Creating an Empowered Movement for Change (3 cr)

While the above course is a comprehensive IPE course, there are opportunities for the SON to offer planetary health. Some of the DNP specialties are starting to include disaster preparedness content into the curriculum as well.

**Section Total (13 out of 14)**

**Grade: A**

# Community Outreach and Advocacy

***Section Overview:*** *Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities impacted by disruptions of the environment and Earth's natural systems. For example, even though climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on BIPOC populations and low resourced communities. Institutions should partner with local communities affected by environmental degradation to share information about environmental health threats, advocate together for change, and provide students with opportunities to connect with the communities they serve.*

1. Does your nursing program partner with community organizations to promote planetary and environmental health?	
2	<b>Yes, the school of nursing meaningfully partners with one or more community organizations to promote planetary and environmental health.</b>
1	The institution partners with community organizations, but the school of nursing is not part of that partnership.
0	No, there is no such meaningful community partnership.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> Yes, UMN SoN partners with different organizations and venues such as Health Professionals for a Healthy Climate, Health Students for a Healthy Climate, Liberty Community Church. There is also a strong interdisciplinary connection between the SoN and other programs within the UMN.</p>	

2. Is your nursing program engaged in community facing courses or events regarding planetary health?	
2	The school of nursing offers community-facing courses or events at least once every year.
1	<b>The school of nursing offers courses or events open to the community, but they are not primarily created for a community audience.</b>
0	No, the school of nursing has not offered such community-facing courses or events.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> Practicum opportunities within the community setting can be tailored to focus on planetary health if the student chooses.</p> <p>The <a href="#">Planetary Health Guest Lectureship</a> is an annual event that invites planetary health leaders to lecture on their specialties.</p>	

**3. Does your nursing program have regular coverage of issues related to planetary health and/or sustainable health care in program update communications?**

2	Yes, students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	Students do not regularly receive communications about planetary health and/or sustainable healthcare.
N/A	Not applicable to this program.

*Score explanation:* Yes, the Director of Planetary Health sends a monthly Planetary Health Message to all nursing students.

Faculty and staff receive weekly updates through *Inside Nursing*.

Additionally, the School of Nursing magazine covers some of the news surrounding Planetary Health. The website designated to planetary health offers more recognition to various topics of Planetary Health and sustainable health care. Student organizations, such as Health Students for a Health Climate, are tasked with updating student bodies.

**4. Does your nursing program offer continuing education courses or interprofessional experiences that address planetary health and/or sustainable health care?**

2	Yes, the nursing program offers <b>multiple</b> in-person or online continuing education courses or interprofessional experiences relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.
1	Yes, the nursing program offers <b>one</b> continuing education course or interprofessional experience relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are <b>no</b> such accessible courses for post-graduate providers
N/A	Not applicable to this program.

*Score explanation:* Yes, the Institute on the Environment offers interprofessional experiences to address sustainable health care such as the [sustainability symposium](#).

Additionally, the School of Nursing sponsors events such as [Code Blue for Patient Earth](#) which offer CEUs to attendees.

<b>5. Does your nursing program participate in or encourage advocating for policies addressing planetary health issues?</b>	
<b>2</b>	<b>Yes, the school of nursing actively participates in promotion of policies addressing planetary health issues.</b>
1	The institution participates in the promotion of policies addressing planetary health issues, but the school of nursing is not involved with this.
0	No, there is no participation in promotion of policies addressing planetary health issues.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> Yes, the University of Minnesota actively supports and promotes local, regional, and national policy changes that address planetary health issues caused by the Anthropocene. The SoN has a strong relationship with Alliance of Nurses for Healthy Environments, the American Nurses Association, Health Professionals for a Healthy Climate, and the American Academy of Nursing and promotes student connections and participation in fellowship, as well as practicums.</p>	

<b>6. Has your nursing program partnered with local, regional, or national health care institutions/organizations to promote planetary health related education for the public?</b>	
<b>2</b>	<b>Yes, the school of nursing has partnered with healthcare organizations to promote planetary health related education for the public.</b>
1	Yes, the institution has partnered with healthcare organizations to promote planetary health related education for the public, but the school of nursing is not involved with this.
0	No, there is no partnership with healthcare organizations to promote planetary health related education for the public.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> Yes, the University of Minnesota and Director of Planetary Health have partnerships with many regional and national health care organizations including Health Professional for a Healthy Climate, Association of Nurses for a Healthy Environment, Planetary Health Alliance, Alliance of Nurses for Healthy Environments, and Global Consortium on Climate and Health.</p>	

<b>Section Total (10 out of 12)</b>	<b>Grade:A-</b>
-------------------------------------	-----------------

# Support for Student-Led Planetary Health Initiatives

**Section Overview:** *The future of planetary health belongs to the next generation of healthcare workers, and students are often the first at an institution to address the crisis. Nursing programs should encourage student engagement in planetary health and/or sustainability initiatives by providing mentorship, facilitating opportunities for educational and immersion experiences, and securing funding for student-led research and quality improvement projects. These efforts not only encourage student activity, but at best can work in cohesion with community projects.*

1. Does your nursing program or educational institution have a student representative serving on a nursing programme or educational institution decision-making committee advocating for planetary health and/or sustainability best practice?	
2	Student representation is actively encouraged by the school of nursing or educational institution with time spent counting towards programme hours where applicable.
1	<b>There is opportunity for student representation but this requires student initiative to seek out and carry out activities in their spare time.</b>
0	There is no such opportunity for student involvement.
N/A	Not applicable to this program.

*Score explanation:* The UMN has an official student organization called [Health Students for a Healthy Climate](#) which is “an interdisciplinary student group aimed at helping health professionals learn about the impacts of climate change and ways to advance action as future health leaders.” Although they can influence practices, they are not a decision-making committee.

The influence of Health Students for a Healthy Climate has led to many other student organizations in the field of Planetary Health and Sustainability.

2. Does your nursing program or educational institution provide opportunities for nursing students to conduct research related to planetary health and/or sustainability in healthcare?	
2	<b>There is a specific planetary health and/or sustainability in healthcare research program or module for students interested in conducting research on this topic.</b>
1	There are opportunities for students to perform research but these require student initiative to select planetary health and/or sustainability in healthcare as a topic.
0	There is no such opportunity for students.
N/A	Not applicable to this program.

*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.”

**3. Does your nursing program or educational institution support nursing students interested in enacting planetary health and/or sustainability initiatives or quality improvement projects?**

<b>2</b>	<b>Yes, students have been supported to enact planetary health and/or sustainability initiatives or quality improvement projects in the past year.</b>
1	Yes, there is support for students however no initiatives have been enacted in the past year.
0	There is no such opportunity for students.
N/A	Not applicable to this program.

*Score explanation:* Many graduate students have chosen to conduct their DNP projects in the area of planetary health and are met with faculty support.

Shanda Demorest, DNP: Creating a sustainability team for an urban nurse practitioner clinic  
 Jo Bjorgaard, DNP-s: Decarbonizing a university-based healthcare facility  
 Melissa Thone, DNP-s: Climate health literacy digital platform  
 Kent Boyd, DNP-s: Climate resilience champions network  
 Kasey Bellegrade, DNP-s: United Nations  
 Pang Lor, DNP-s: Extreme heat education for rural farmers

The nursing program offers multiple opportunities to get involved in initiatives such as organizing guest lectures and conferences related to planetary health.

**4. Does your nursing program or educational institution offer opportunities for nursing students to teach or present about planetary health and/or sustainability in a healthcare related topic?**

<b>2</b>	<b>Yes, students have been involved in teaching or delivered presentations about planetary health and/or sustainability in healthcare during the past year.</b>
1	There are opportunities for students however no teaching or presentations have been delivered in the past year.
0	There is no such opportunity for students.

N/A	Not applicable to this program.
<p><i>Score explanation:</i> The nursing program offers multiple opportunities for DNP students to present about planetary health. Faculty are engaged with allowing students to present about Planetary Health, especially as it is being interwoven into the curriculum as a core concept starting Fall 2023.</p> <p>Jo Bjorgaard, DNP-s: Climate equity lecture for BSN students  Kent Boyd, Melissa Thone, Bianca Mueller, Kasey Bellegrade: Planetary Health Annual Meeting; <i>Crosswalk Tool</i>.  Jo Bjorgaard, Kent Boyd, Pang Lor, Melissa Thone: Code Blue for Patient Earth</p>	

5. Does your nursing programme or educational institution provide one or more annual co-curricular planetary health and/or sustainability program initiatives in the following categories? (1 point each)	
1	Projects where students can gain experience in organic agriculture and sustainable food systems. For example, gardens, farms, community supported agriculture, fishery programmes, or urban agriculture projects?
1	Events in which students learn directly from members of a local environmental justice community about the environmental challenges they face?
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts?
1	Wilderness or outdoor programmes that follow “leave no trace” principles. For example: hiking, kayaking or other outings for students.
N/A	Not applicable to this program.
<p><i>Score explanation:</i></p> <ol style="list-style-type: none"> <li><a href="#">IP Student Garden Project</a></li> <li><a href="#">Code Blue for Patient Earth conference</a>. Northside Healing Space co-sponsored conference.</li> <li>Liberty Community Church have partnered with the School to have students volunteer during the Liberty 21st Century Leadership Academy for kids K-12. The theme was Planetary Health.</li> </ol>	

<b>Section Total (11 out of 12)</b>	<b>Grade: A</b>
-------------------------------------	-----------------



# Campus Sustainability

***Section Overview:*** Often the most visible and accessible of the planetary health efforts, sustainability can take on many forms. As future healthcare workers, it is important to identify and nurture both a culture of sustainability and actionable items to work towards within our systems. 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 endeavor, the healthcare sector is well poised to lead the world to a more sustainable future. Creating a more sustainable future of healthcare will require more intentional procurement, thorough recycling and waste management, and continuing education to foster a healthcare environment that works towards planetary health.

1. Does your nursing program or program's institution have designated staff responsible for sustainability?	
2	Yes, there is an Office of Sustainability with salaried staff dedicated to campus sustainability.
1	There is a sustainability task force or committee, but no salaried sustainability staff.
0	There are no staff members or committee responsible for overseeing campus sustainability.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> The University of Minnesota adopted a <a href="#">policy</a> on sustainability in 2004. It has since developed a <a href="#">sustainability committee</a>, employed a sustainability leader and established sustainability goals for the institution.</p>	

2. How ambitious is your institution/nursing school's plan to reduce its own carbon footprint?	
5	The institution/nursing school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b>
3	The institution/nursing school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b>
1	The institution/nursing school has a stated goal of carbon neutrality by <b>2040</b> but has <b>not created a plan</b> to reach that goal or the <b>plan is inadequate</b>
0	<b>The institution/nursing school does not meet any of the requirements listed above</b>
<p><i>Score explanation:</i> The University of Minnesota <a href="#">goals</a> for carbon neutrality are to cut carbon emissions in half by 2021 and reduce them to zero by 2050.</p>	

**3. Do buildings or other infrastructure used by the nursing programs for teaching (not including hospitals) utilize renewable energy?**

2	Nursing school buildings are powered by 100% renewable energy.
1	<b>Nursing school buildings are powered by a combination of renewable and non-renewable energy sources.</b>
0	Nursing school buildings are not powered by renewable energy.
N/A	Not applicable to this program.

*Score explanation:* Yes. The University obtains some of its electricity supply from [renewable sources](#) (wind and solar).

**4. Has the nursing program implemented strategies to encourage and provide environmentally friendly transportation options for students?**

2	<b>Yes, strategies to encourage and provide environmentally friendly transportation options have been implemented and are well publicized to students.</b>
1	There are strategies to encourage and provide environmentally friendly transportation options but these are unsatisfactory or poorly publicized to students.
0	No strategies have been implemented to encourage and provide environmentally friendly transportation options.
N/A	Not applicable to this program.

*Score explanation:* The University has done several things. The [UPass](#) discounted transit pass, Bike sharing, bike parking and maintenance facilities, the ZAP bike rewards program, on and off-road bike paths, micro mobility options (i.e. scooters), walking resources, etc.

**5. Does your nursing program have a recycling program?**

2	<b>There are recycling programs which are easily accessible to students and faculty.</b>
1	There are recycling programs but they are poorly implemented or not easily accessible to students and faculty.
0	There is no recycling program.
N/A	Not applicable to this program.

*Score explanation:* There is not a recycling program specific to the School of Nursing, but the University of Minnesota has a robust recycling program (*It All Adds Up* campaign).

The School facilities have full recycling option/bins placed throughout all classroom spaces, and in 2018 they added composting collection throughout the School.

**6. Are there sustainability requirements or guidelines for events, simulations, or training hosted by the nursing program?**

2	There are sustainability requirements that must be adhered to.
<b>1</b>	<b>There are sustainability guidelines which are recommended.</b>
0	There are no sustainability criteria or guidelines.
N/A	Not applicable to this program.

*Score explanation:* All the serving utensils, plates, cups, etc. are compostable. The faculty have committed to only bringing outside groups who respect these choices.

The School faculty consistently consider sustainability actions conducted during events hosted by the School.

**7. Has your institution pledged to become fossil-free and have a plan for divestment?**

2	The institution is entirely divested from fossil fuels.
<b>1</b>	<b>The institution has partially divested from fossil fuel companies or has made a commitment to divest from fossil fuel investments.</b>
0	The institution has not divested from fossil fuel companies.
N/A	Not applicable to this program.

*Score explanation:* The UMN has a [plan to divest](#) from fossil fuels entirely within the next 5-7 years.

**8. Does your school promote sustainable practices during demonstration, practice and assessment of clinical skills?**

2	Yes, sustainable practices have been implemented in clinical skills areas.
<b>1</b>	<b>There are plans to implement sustainable practices in clinical skills areas but these have not yet been implemented.</b>
0	There are no efforts to make clinical skills areas more sustainable.

N/A	Not applicable to this program.
<i>Score explanation:</i> There is consideration during practice of clinical skills for reuse and recycling of items when possible.	

<b>9. Does your nursing school highlight the environmental and health co-benefits of a sustainable lifestyle, e.g. plant-based diet, sustainable agriculture principles?</b>	
2	This topic was explored in depth by the core curriculum.
<b>1</b>	<b>This topic was briefly covered in the core curriculum.</b>
0	This topic was not covered.
N/A	Not applicable to this program.
<i>Score explanation:</i> Yes. Some specialties provide deeper learning surrounding these topics eg. Health Innovation and Leadership & Integrative health. There are some elective options available to nursing students. See “Curriculum” metrics for more details.	

<b>10. Does your program identify ways to advocate and mitigate for sustainable best practices in health care?</b>	
2	This topic was explored in depth by the core curriculum.
<b>1</b>	<b>This topic was briefly covered in the core curriculum.</b>
0	This topic was not covered.
N/A	Not applicable to this program.
<i>Score explanation:</i> The U of M nursing program curriculum focuses on systems change and as part of that waste generated by healthcare is addressed. Planetary health is embedded in the curriculum for some of the specialities and is introduced to all students in the nursing program. Continued work in progress to further embed planetary health in the curriculum.  See “Curriculum” metrics for more details.	

<b>11. Does your program apply sustainability criteria when making decisions about supply procurement?</b>	
2	There are sustainability criteria that must be met for supply procurement.
<b>1</b>	<b>There are sustainability guidelines for supply procurement but these are optional.</b>

0	There are no sustainability guidelines or criteria for supply procurement.
N/A	Not applicable to this program.
<i>Score explanation:</i> The School facility directors are very aware of sustainability best practices. All of the School's Cooperatives have lists of products that align with sustainable practices.	

<b>Section Total (13 out of 22)</b>	<b>Grade: C+</b>
-------------------------------------	------------------

# Grading

## Section Overview

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

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

*\*Within each grade bracket, a score in the top 5% ( \_5 to \_9%), receives a “+”, and a score in the bottom 5% ( \_0- \_4%) receives a “-”. For example, a percentage score of 78% would be a B+.*

## Planetary Health Grades for the [Insert School Name]

The following table presents the individual section grades and overall institutional grade for the [Insert School Name] on this nursing-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
<b>Planetary Health Curriculum (30%)</b>	$(31/40) \times 100 = A\%$	B+
<b>Interdisciplinary Research (17.5%)</b>	$(13/14) \times 100 = B\%$	A
<b>Community Outreach and Advocacy (17.5%)</b>	$(10/12) \times 100 = C\%$	A-
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	$(11/12) \times 100 = D\%$	A
<b>Campus Sustainability (17.5%)</b>	$(13/22) \times 100 = E\%$	C+
<b>Institutional Grade</b>	$(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = F\%$	A

## Resources

Planetary Health Alliance. Retrieved February 26, 2022, from <https://www.planetaryhealthalliance.org/planetary-health>

Sevelius, J. M., Gutierrez-Mock, L., Zamudio-Haas, S., McCree, B., Ngo, A., Jackson, A., Clynes, C., Venegas, L., Salinas, A., Herrera, C., Stein, E., Operario, D., & Gamarel, K. (2020). Research with Marginalized Communities: Challenges to Continuity During the COVID-19 Pandemic. *AIDS and behavior*, 24(7), 2009–2012. <https://doi.org/10.1007/s10461-020-02920-3>