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# Planetary Health Report Card:

## *University of Washington School of Medicine*

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UW Medicine

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UW SCHOOL  
OF MEDICINE

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2020-2021 Contributing Team:

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## Summary of Findings

<b>Curriculum</b>	<b>D</b>
<ul style="list-style-type: none"> <li>Planetary health content in the School of Medicine curriculum is severely lacking. Much of the content is offered only in electives and not as part of the core curriculum. Many important topics are completely overlooked, such as disproportionate health impacts of climate change on marginalized populations and the environmental impact of the health care system.</li> </ul>	
<b>Interdisciplinary Research</b>	<b>A-</b>
<ul style="list-style-type: none"> <li>Interdisciplinary research is UWSOM’s strongest area in promoting planetary health. Research groups of note are the Center for Health and the Global Environment and the Climate Impacts Group. It would be helpful for the medical school to have a web page dedicated to research efforts so that students can learn and potentially become involved. UW as a whole has a robust sustainability website, and the School of Medicine could benefit from a similar project.</li> <li>There should also be a more formal system for giving members of communities that are disproportionately affected by climate change, such as Native people, a voice in the direction and execution of climate health research efforts.</li> </ul>	
<b>Community Outreach and Advocacy</b>	<b>B</b>
<ul style="list-style-type: none"> <li>One way that UW has made progress in community outreach is through their partnerships with Washington Physicians for Social Responsibility and the Washington Health Care Climate Alliance. UW Medicine is doing well in providing educational materials for patients about environmental risk factors and the health effects of climate change.</li> <li>UW could increase the efficacy and impact of this work by better communicating these projects and other planetary health information with students.</li> <li>They should also offer a CME course on planetary health, as current physicians need training on how to address the effects of climate change on their patient’s health.</li> </ul>	
<b>Support for Student-Led Initiatives</b>	<b>B-</b>
<ul style="list-style-type: none"> <li>Much of the available support for medical students interested in pursuing planetary health research, engaging in advocacy and activities related to climate change, and developing related projects comes from the institution and not the School of Medicine. Since UW is a large and well-resourced institution, there are opportunities available to medical students in these areas, but medical students need to find them on their own.</li> <li>UWSOM should provide more internal planetary health-related opportunities for students. They should also promote institution-wide programs and have a central site where students can access information about relevant research and extracurriculars.</li> </ul>	
<b>Sustainability</b>	<b>B</b>
<ul style="list-style-type: none"> <li>UW is taking appropriate steps to increase campus sustainability. There is a realistic plan to achieve carbon neutrality by 2050.</li> <li>Campus facilities are constructed sustainably, but the school could improve their use of renewable energy in their power sourcing. They should also commit to divesting from fossil fuels, as divestment has a significant effect on global carbon emissions.</li> </ul>	

# Statement of Purpose

*Planetary health is human health.*

The Planetary Health Alliance defines planetary health as “a field focused on characterizing the human health impacts of human-caused disruptions of Earth's natural systems.” This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanization, 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 color, 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 medical schools, we have created a Planetary Health Report Card that medical students internationally can use to grade and compare their home institutions on an annual basis. This medical-student-driven initiative aims to compare medical schools 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 centered on environmental health impacts 5) medical school campus sustainability.

# Planetary Health Curriculum

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

## *Curriculum: General*

<b>1. Did your medical school offer elective courses to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?</b>	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	<b>Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.</b>
1	The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation:</i> The University of Washington School of Medicine has offered one non-clinical elective course within the past year which explores selected topics in global health, including environmental health and the impact of climate change on human health. Prior to this, courses that explore climate change topics more in-depth have been offered in conjunction with the School of Medicine, with course titles such as “Understanding and Managing the Health Risks of Climate Change,” and “International Climate Negotiations within the UN Framework Convention on Climate Change.” However, these later courses have not been offered to students specifically within the last academic year.</p>	

## *Curriculum: Health Effects of Climate Change*

**2. Does your medical school curriculum address the relationship between extreme temperature**

**health risks and climate change, as well as the socioeconomic/racial disparities in extreme heat exposure?**

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

*Score explanation:* The University of Washington School of Medicine offers a non-clinical elective entitled “Community-focused Urban Health” which explores “approaches to health equity for medically underserved urban communities.” This elective includes an examination of the disproportionate impact of extreme weather events on medically underserved urban demographic groups. This topic is not explored in such depth in the School of Medicine core curriculum.

**3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?**

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

*Score explanation:* This topic is not explicitly covered in the University of Washington School of Medicine pre-clinical core curriculum. There are opportunities for students to explore this topic through non-clinical electives offered by other health sciences departments, namely the University of Washington School of Public Health and the Department of Environmental and Occupational Health Sciences.

**4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?**

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

*Score explanation:* In the Vector borne/Arbovirus, and the Vector Borne Bacteria lectures of the Invaders and Defenders block, mosquito control is mentioned as both a preventative measure for emerging vector borne diseases, and a contributing factor for their distribution. It was also mentioned in the background reading for these courses specifically on the impact of flooding on waterborne disasters. It was extensively covered in the course on Clinical Infectious Disease in the Zoonotic Infections lecture by Dr. Rabinowitz. The entire lecture covered infectious diseases with a One Health approach, and had several slides on the impact of climate change on the changing patterns of infectious diseases.

**5. Does your medical school curriculum address the cardiorespiratory health effects of climate change, including air pollution?**

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

*Score explanation:* During the second week of Themes in Medicine, there was a lecture on social determinants of health and environmental conditions were mentioned. The lecture addressed the impact of air pollution on cardiorespiratory health. This was mentioned again in the Circulatory Systems and the Life Cycles courses during the asthma lecture material in one paragraph each.

**6. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?**

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

*Score explanation:* In the University of Washington School of Medicine’s preclinical materials for the course Mind, Brain, and Behavior environmental conditions were mentioned as a contributing factor to mental health conditions. These environmental conditions were not explicitly defined to environmental degradation or climate change.

**7. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?**

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

*Score explanation:* The curriculum touches briefly on water security through a flint Michigan article and how this impacts health. It also talks about health equity in terms of availability to fresh foods and communities but this is in reference to local, state and national communities. It does not discuss the impact of global climate change and the inability for some global communities to grow or obtain food due to these changes. Since UWSOM is associated with UW, there are optional lectures to the public through UW that the UWSOM students can attend which address the topics discussed above. Since the topics are discussed in optional public events through UW it does not meet the technical requirement of being in elective coursework for UWSOM. For this reason, the score is a 0.

**8. Does your medical school curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, and older adults?**

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

*Score explanation:* The global health section of the curriculum contains a wide variety of ways the global community is coming together to try and provide global health equity and global health interventions, such as global monitoring and cooperation to prevent the spread of diseases. However the curriculum does not talk about the health of the globe as a habitable environment for our global neighbors. Nor does it touch on the trends or reports of how these changing environmental conditions will affect communities with varying severity. There are optional lectures provided through UW that touch on these topics but these are not part of the UWSOM elective courses or curriculum and do not meet the definition for a higher score. For this reason, the score is a 0.

**9. Does your medical school curriculum address the unequal health impacts of climate change globally?**

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.

1	<b>This topic was covered in elective coursework.</b>
0	This topic was not covered.
<p><i>Score explanation:</i> This topic was covered in Dr. Jeremy Hess’s lecture titled “Global Environmental Health” as part of the Global Health Core Topics elective course. This lecture covered many aspects of environmental health and briefly mentioned the unequal health impacts of climate change globally.</p>	

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

<b>10. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>
<p><i>Score explanation:</i> This topic was not covered in the UW medical schools core curriculum or in the elective coursework.</p>	

<b>11. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university’s surrounding community?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>
<p><i>Score explanation:</i> This topic was not covered in the UW medical schools core curriculum or in the elective coursework.</p>	

<b>12. Does your medical school curriculum address the unique climate and environmental health challenges that have impacted and are impacting Indigenous communities?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.

<b>1</b>	<b>This topic was covered in elective coursework.</b>
0	This topic was not covered.
<p><i>Score explanation:</i> This topic was covered in Dr. Jeremy Hess’s lecture titled “Global Environmental Health” as part of the Global Health Core Topics elective course. Dr. Hess talked briefly about the health impacts of climate change on indigenous communities in Alaska.</p>	

<b>13. Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, and older adults?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>
<p><i>Score explanation:</i> This topic was not covered in the UW medical schools core curriculum or in the elective coursework.</p>	

*Curriculum: Sustainability*

<b>14. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
<b>1</b>	<b>This topic was covered in elective coursework.</b>
0	This topic was not covered.
<p><i>Score explanation:</i> This topic was covered in the elective Culinary Medicine during which students worked with dietetic students to learn about nutrition and sustainable food systems. Unfortunately, this course was only available to the 60 students who attend the Bozeman, MT campus for the foundations phase of medical school.</p>	

<b>15. Does your medical school curriculum highlight the waste generated by the healthcare system and identify ways to advocate for and implement sustainable best practices in health care?</b>	
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3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>
<p><i>Score explanation:</i> UWSOM does not offer any non-clinical electives specifically about climate change, environmental health, or healthcare waste as of their coursework offered in the 2019-2020 and 2020-2021 catalogues. Students have been made aware of seminars that address these topics, but these are few and far between and often put on by interested physicians, not as a part of required or optional coursework for credit.</p>	

*Curriculum: Clinical Applications*

<b>16. In training for patient encounters, does your medical school’s curriculum introduce strategies to have conversations with patients about the health effects of climate change?</b>	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
<b>0</b>	<b>No, there are not strategies introduced for having conversations with patients about climate change</b>
<p><i>Score explanation:</i> Although the University of Washington School of Medicine does teach students about the effects of climate change on different communities and the resulting health issues during clinical skills workshops and relevant lectures, there is no direct instruction on having conversations about the health effects of climate change in the pre-clinical coursework.</p>	

<b>17. In training for patient encounters, does your medical school’s curriculum introduce strategies for taking an environmental history or exposure history?</b>	
2	<b>Yes, the core curriculum includes strategies for taking an environmental history.</b>
1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history.

*Score explanation:* Throughout the pre-clinical years, multiple workshops integrate taking an exposure and environmental history and offer practice in simulations as well as expect it to be a part of a social history when taking patient histories in hospital encounters. In addition, multiple units throughout the didactic coursework discuss the physiologic effects of environmental exposures, and remind students to cover this in their clinical work during patient interviews.

***Curriculum: Administrative Support for Planetary Health***

**18. Is your medical school currently in the process of improving Education for Sustainable Healthcare (ESH)/planetary health education?**

4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
2	<b>Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.</b>
0	No, there are no improvements to planetary health education in progress.

*Score explanation:* The University of Washington School of Medicine is currently redoing their Ecology of Health and Medicine curriculum, which will include improvements to ESH/planetary health education. It is unclear if this is a priority in the revamped curriculum.

**19. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core curriculum?**

6	Planetary health/ESH topics are well integrated into the core medical school curriculum.
4	<b>Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.</b>
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).
0	There is minimal/no education for sustainable healthcare.

*Score explanation:* As noted in Objective 17, there are workshops that integrate exposure and environmental history taking, as well as the effects of climate change on health being brought in in relevant lectures. These topics are well integrated, though they do not cover the breadth of the environmental impacts on health that would warrant a score of 6. Specifically, education on sustainable healthcare is severely lacking.

**20. Bonus: Does your medical school have a program that offers incentives for**

**faculty/departments to develop new planetary health/ESH courses and/or incorporate planetary health/ESH into existing courses?**

1\* Yes, the medical school has an incentive program.

**0 No, the medical school does not have an incentive program.**

*Score explanation:* Our school does not have an incentive program for faculty/departments to develop new planetary health/ESH.

**Section Total (19 out of 58)**

**D**

*Are there additional curriculum resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.*

## Interdisciplinary Research

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

<b>1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?</b>	
<b>4</b>	<b>Yes, there are faculty members at the School of Medicine who have a primary research focus in planetary health and healthcare sustainability.</b>
3	Yes, there are faculty members at the School of Medicine who have a primary research focus in a planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the School of Medicine who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution, but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation:</i> The University of Washington is home to the Center for Health and the Global Environment (CHanGE) whose mission is to “collaboratively develop and promote innovative approaches to understanding and managing the risks of global environmental change.” The director of CHanGE is Jeremy J. Hess, MD, MPH, who is an emergency medicine physician affiliated with the University of Washington School of Medicine. Dr. Hess has a history of active involvement in climate change research. He is lead author on several national and international climate assessments, including the IPCC’s Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation, and the Sixth Assessment Report. He is also an author on the annual Lancet Countdown on Health and Climate Change. Furthermore, he serves as a consultant for the Climate and Health Program at the U.S. Center for Disease Control and Prevention. In addition, there are several other UW School of Medicine-affiliated physicians conducting active research within topics of climate change and the effects on human health.</p>	

**2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?**

3	<b>There is at least one dedicated department or institute for interdisciplinary planetary health research.</b>
2	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.
1	There is an Occupational and Environmental Health department, but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.
<p><i>Score explanation:</i> The University of Washington is home to the Climate Impacts Group (CIG), an organization which aims to identify areas in need of further climate change research, advance scientific understanding of climate change impacts through organizing and conducting dedicated scientific research, and utilizing the findings of climate change research to inform policy decisions and empower local and regional communities to respond and adapt to the effects of climate change. In conducting its work, the UW CIG partners with entities such as the Washington Department of Fish and Wildlife, the Pacific Climate Impacts Consortium, The Nature Conservancy, and several First Nation tribes.</p>	

<b>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 medical school?</b>	
3	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.
2	<b>Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental 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.
<p><i>Score explanation:</i> Community stakeholders who are disproportionately impacted by the effects of climate change have been able to help steer the direction of research projects conducted through the University of Washington Climate Impacts Group (UW CIG). For example, the Yakama Nation were able to fund a project that aimed to “better understand climate change impacts on the meadows of their Reservation that they manage, and focus restoration actions where they will contribute most to maintaining the ecological and cultural values of meadows into the future.” While there is no formal process for community stakeholders to exert top level decision-making influence on the research agenda for the UW CIG, organized community stakeholders have previously been able to provide input on the direction of several climate change research projects.</p>	

**4. Does your institution have a planetary health website, or a website centralizing various campus resources related to health and the environment?**

3	<b>There is an easy-to-use, adequately comprehensive website that centralizes 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.</b>
2	There is a website that attempts to centralize various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.
<p><i>Score explanation:</i> The University of Washington has a robust <a href="#">sustainability website</a>. This includes ways that they are trying to cut down their climate impact, student groups doing sustainability work on campus, and relevant funding opportunities. The University of Washington also has a <a href="#">Program on Climate Change website</a>. This website includes more event opportunities, information specific to courses on climate and health research and people involved.</p>	

<b>5. Has your institution recently hosted a conference or symposium on topics related to planetary health?</b>	
4	Yes, the institution has hosted more than one conference or symposium on topics related to planetary health in the past year, including at least one on climate change.
3	<b>Yes, the institution has hosted one conference or symposium on topics related to planetary health in the past year.</b>
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.
<p><i>Score explanation:</i> The University of Washington hosted the 8th annual Northwest Climate Conference in 2017, They were also scheduled to host the 11th Northwest Climate Conference in October 2020, but it has been moved to April 2021 due to COVID. The Program on Climate Change a part of the College of the Environment is a symposium that has occurred the last four years 2016-2020.</p>	

<b>6. Has your institution or medical school joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education?</b>	
2	Yes, the medical school has joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education.

1	<b>Yes, the institution has joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education, but the medical school specifically has not.</b>
0	No, the institution has not joined the Planetary Health Alliance or the Global Consortium on Climate and Health Education.
<p><i>Score explanation:</i> As of December 2020 UWSOM has not joined the Global Consortium on Climate and Health Education. Although some of the institutions from University of Washington such as the Community Health Of Central Washington, University of Washington Affiliated Residency Program, the University of Washington, School of Nursing, and the University of Washington, School of Public Health are affiliated. Also as of December 2020 UWSOM has not joined the Planetary Health Alliance. The University of Washington School of Public Health has joined.</p>	

<b>Section Total (16 out of 19)</b>	<b>A-</b>
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*Are there additional research resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.*

# 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 color. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.*

<b>1. Does your medical school partner with community organizations to promote planetary and environmental health?</b>	
<b>3</b>	<b>Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.</b>
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	The institution partners with community organizations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<p><i>Score explanation:</i> University of Washington partners with several community organizations that promote planetary and environmental health. One example is the opportunity for medical students to volunteer with the Washington Physicians for Social Responsibility (WPSR) to promote action against climate change, economic inequality and nuclear weapons. More information on this group’s work can be found <a href="#">here</a>. In addition, University of Washington partnered in 2019 with Washington Health Care Climate Change Alliance, which is an organization focused on addressing healthcare issues that arise due to climate change. An article on the goals of this collaboration can be found <a href="#">here</a>.</p>	

<b>2. Does your medical school offer community-facing courses or events regarding planetary health?</b>	
<b>3</b>	<b>The medical school offers community-facing courses or events at least once every year.</b>
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.

0	The medical school has not offered such community-facing courses or events.
<p><i>Score explanation:</i> The University of Washington’s Office of Sustainability offers nearly weekly events that are free and open to the broader community throughout the year. Examples from this past year include the “Climate Dialogue 2020” which is a yearly event that covers climate justice and vulnerable communities, as well as a talk called “ Equitable Futures and Environmental Justice” that discusses how underprivileged communities are disproportionately affected by environmental issues.</p>	

**3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?**

2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	<b>Students do not regularly receive communications about planetary health or sustainable healthcare.</b>

*Score explanation:* All University of Washington School of Medicine communications and the Student Organizations Activity Digest were reviewed for the 2020-2021 academic year thus far, and did not mention any events or news related to environmental health.

**4. Does the medical school offer continuing medical education (CME) courses that address planetary health and/or sustainable healthcare?**

2	Yes, multiple in-person or online CME courses relating to planetary health and/or sustainable healthcare are offered, including at least one with a primary focus of planetary health.
1	Yes, one in-person or online CME course related to planetary health and/or sustainable healthcare is offered.
0	<b>There are no CME courses on planetary health or sustainable healthcare topics.</b>

*Score explanation:* The University of Washington does not offer any CME courses related to Planetary Health. The CME course list can be found [here](#).

**5. Do hospitals affiliated with your medical school have accessible educational materials for patients about environmental health exposures?**

2	<b>Yes, all affiliated hospitals have accessible educational materials for patients.</b>
1	Some affiliated hospitals have accessible educational materials for patients.

0	No affiliated medical centers have accessible educational materials for patients.
<p><i>Score explanation:</i> University of Washington’s affiliated hospitals all have educational materials for patients on environmental health exposures. For instance, Harborview offers a web page titled “Environmental Disease Factors” which covers exposures such as molds, air pollution and lead poisoning. This page can be found <a href="#">here</a>.</p>	

<b>6. Do hospitals affiliated with your medical school have accessible educational materials for patients about climate change and health impacts?</b>	
2	<b>Yes, all affiliated hospitals have accessible educational materials for patients.</b>
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.
<p><i>Score explanation:</i> University of Washington is part of the Washington Healthcare Climate Alliance which partnered with Health Care without Harm to “bring health care’s expertise, experience, and trusted voice to the legislative and regulatory process for climate-smart policies related to energy, transportation, food, waste, infrastructure, and community resilience.” All affiliated hospitals are part of this initiative and share Health Care without Harm’s brochures, which can be viewed <a href="#">here</a>.</p>	

<b>Section Total (10 out of 14)</b>	<b>B</b>
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*Are there additional community engagement and advocacy resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.*

# 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.

<b>1. Does your institution offer support for medical students interested in enacting a sustainability initiative?</b>	
<b>2</b>	<b>Yes, the institution offers grants available to medical students for students to enact sustainability initiatives.</b>
1	The medical school encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available.
0	No, the institution does not offer opportunities or support for sustainability initiatives.
<p><i>Score explanation:</i> The University of Washington has two funding programs that students can apply for to enact sustainability projects, the Campus Sustainability Fund and the Green Seed Fund. They are not limited to the medical school, but medical students are eligible to apply. The Campus Sustainability Fund is focused more on projects that reduce the environmental impact of the campus, such as ecological restoration and clean energy generation projects. The Green Seed Fund aims to support research that can contribute to the overall sustainability of campus. Additional information about these programs can be found <a href="#">here</a>.</p>	

<b>2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?</b>	
3	The institution offers an explicit paid fellowship for medical students to do research related to planetary health and/or sustainable healthcare.
2	The institution offers paid research opportunities for students and planetary health/sustainable healthcare projects would be considered eligible.
1	<b>There are unfunded research opportunities for students to perform research related to planetary health/sustainable healthcare.</b>
0	There are no opportunities for students to receive funding for planetary health/sustainable healthcare research.
<p><i>Score explanation:</i> A primary way that students at UWSOM can get involved in research is by completing a Scholarship of Discovery project in the summer after their first year of medical school.</p>	

Students may get credit by completing research in any field related to medicine, so planetary health would be applicable. However, there are no internally funded research programs related to planetary health that students could use to fulfill their project requirement. UWSOM also offers funded research programs for students after their third year, but none are related to sustainability or planetary health. A full list of funded research programs for medical students at the University of Washington can be found [here](#). After the Scholarship of Discovery project, there are other ways that students could get involved in planetary health research for academic credit, such as participating in the Global Health Pathway and researching planetary health for their scholarship requirement. Dual degree students pursuing an MPH or PhD would also have the opportunity to conduct research on the effects of climate change on human health for their degree requirements. Students also have the opportunity to pursue external funding for planetary health related research.

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

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

*Score explanation:* The UW School of Medicine does not have a web page devoted to planetary health or sustainable healthcare. There is a sustainability page for the institution as a whole: [green.uw.edu](http://green.uw.edu), but it does not contain a page with information about planetary health or initiatives specifically at UW Medicine. Information about sustainability programs available to UW medical students and research related to planetary health conducted by UWSOM faculty must be accessed externally through decentralized, program specific websites, which can make the information more difficult to find.

**4. Does your medical school have funded, registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?**

2	Yes, there is a funded student organization with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organization at my medical school dedicated to planetary health or sustainability in healthcare but it lacks faculty support and/or funding.

<b>0</b>	<b>No, there is not a student organization at my institution dedicated to planetary health or sustainability in healthcare.</b>
<i>Score explanation:</i> There is no student group at the UW School of Medicine dedicated to planetary health engagement. A full list of medical student groups at UW can be found <a href="#">here</a> . If students were to form a planetary health group and register, they would be eligible for recognition and funding from UWSOM.	

<b>5. Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for sustainability best practices?</b>	
<b>1</b>	Yes, there is a student representative that serves on a medical school or institutional decision-making council.
<b>0</b>	<b>No, there is no such student representative.</b>
<i>Score explanation:</i> There are several roles for students to serve on various institutional committees, but no position exists to advocate for sustainability practices. A list of medical student committee positions can be found <a href="#">here</a> . There is a University of Washington Environmental Stewardship committee that serves the whole institution. Medical students are eligible to serve on this committee, but as of now there are none.	

<b>6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)</b>	
<b>1</b>	<b>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.</b>
<b>1</b>	<b>Panels, speaker series, or similar events related to planetary health that have students as an intended audience.</b>
<b>1</b>	<b>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.</b>
<b>1</b>	<b>Cultural arts events, installations or performances related to planetary health that have students as an intended audience.</b>
<b>1</b>	<b>Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.</b>
<b>1</b>	<b>Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students) that follow Leave No Trace principles.</b>
<i>Score explanation:</i>	

- a. The UW Farm project has multiple sites around the Seattle campus where students can serve as volunteer gardeners and gain experience in planting and harvesting sustainably-grown vegetables. The farm also hosts students completing research, service learning, and capstone projects, so there are opportunities for medical students to have a more in-depth experience.
- b. UW has offered many panels and speakers on sustainability for students, a number of which were focused on the health effects of climate change. A full list of upcoming events and those from the past year is listed on the UW sustainability page [here](#).
- c. There were several events last year for students to learn about environmental justice and climate challenges in the local community. Some examples were the Intersection of Social and Environmental Justice summit hosted by UW sustainability and the UW College of the Environment's Diversity, Equity and Inclusion office, the 3<sup>rd</sup> annual Environmental Justice Conference, and events hosted by the Urban Environmental Justice initiative such as Sustaining Communities: Exploring the Intersections of Gentrification, Green Infrastructure, and Anti-Displacement Strategies.
- d. Students at the UW School of Art created an art exhibition using surplus materials from the UW surplus store that ran last January and February. It was open to both students and the public. There have also been a number of environmentally focused exhibits in previous years, hosted by the Department of Digital Arts and Experimental Media, the Henry Art Gallery and the Sustainability in the Arts initiative. Opportunities for live performances and exhibits were more limited this year than in previous years due to COVID-19.
- e. The UW College of the Environment offers many volunteer opportunities for students to be involved in ecological research, such as weather tracking and species cataloguing. The UW chapter of the Society for Ecological Restoration hosts volunteer work parties each week to restore green spaces around the UW campus and greater Seattle area. UW EcoReps is another student-run project that provides opportunities for students to volunteer on a number of sustainability projects, including a campus farmer's market and earth day programming.
- f. UWILD is a program that organizes wilderness trips for students, teaches outdoor education principles such as leave no trace and wilderness medicine principles.

**Section Total (9 out of 15)**

**B-**

*Are there additional student-led initiative resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.*

# Campus Sustainability

***Section Overview:*** This section evaluates the support and engagement in sustainability initiatives by the medical school and/or institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavor, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinizing 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 minimizing environmental impact.

1. Does your medical school and/or institution have an Office of Sustainability?	
3	<b>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 and/or medical school.</b>
2	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 medical school and/or hospital sustainability.
1	There are no salaried sustainability staff, but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>Score explanation:</i> The UW has an Office of Sustainability which has been actively working with students, faculty, and staff from across the UW Health Sciences (includes school of medicine, dentistry, nursing and more) to coordinate and optimize sustainable practices in healthcare.</p>	

2. Does your medical school and/or institution have a stated goal of carbon neutrality by 2050?	
4*	The medical school is already carbon neutral.
3	<b>Yes, there is a stated carbon neutrality goal and the medical school has a well-defined and adequate plan in place to achieve this goal.</b>
2	Yes, there is a stated carbon neutrality goal, but the medical school has not created a plan to reach that goal or the plan is inadequate.
1	There is a CO2 emission reduction goal, but it is not one of carbon neutrality.
0	There is no stated goal for reduction of CO2 emissions.
<p><i>Score explanation:</i> The University of Washington has a Climate Action Plan in place that clearly describes the strategies the UW is using to work towards carbon neutrality. The plan was written in 2009, and does not specifically state 2050 as a target goal, rather it says that it will reach carbon</p>	

neutrality “by, or as soon after 2050 as technology will allow.” The university is also providing progress reports on its Climate Action Plan.

**3. Do buildings/infrastructure used by the medical school for teaching (not including the hospital) utilize renewable energy?**

3*	Yes medical school buildings are 100% powered by renewable energy
2	Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
0	<b>Medical school buildings source &lt;20% of energy needs from off-site and/or on-site renewable energy.</b>

*Score explanation:* The UW purchases the majority of its power from Seattle City Light. The power comes from the following sources: 84% hydro, 6% unspecified, 5% nuclear, 4% wind, 1% bio-gas. The UW also has 9 solar arrays which generate 319 kW of power, and is planning on increasing its reliance on solar arrays for power in the future.

**4. Are sustainable building practices utilized for new and old buildings on the medical school campus, with design and construction of new buildings and remodeling of old buildings conforming to a published rating system or sustainable building code/guideline?**

3	Yes, sustainable building practices are utilized for new buildings on the medical school campus and the majority of old buildings have been retrofitted to be more sustainable.
2	<b>Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have not been retrofitted.</b>
1	Sustainable building practices are inadequately or incompletely implemented for new buildings.
0	Sustainability is not considered in the construction of new buildings.

*Score explanation:* The UW requires all new buildings and major renovations of old buildings to meet LEED gold certification standards at a minimum. Currently 19% of UW building space is LEED certified, with the majority of that space receiving a gold certification. New buildings and major renovations of old buildings are also required to use 50% less potable water than city code requires and to meet energy efficiency standards that are 15% more effective than city code.

**5. Has the medical school implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental**

impact of commuting?	
2	<b>Yes, the medical school 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-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.</b>
1	The medical school has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school has not implemented strategies to encourage and provide environmentally-friendly transportation options.
<p><i>Score explanation:</i> The UW Seattle campus is easily accessible by bike and the majority of students use biking, carpooling, or walking to get to campus. Students also have access to a U-PASS which can be used for many forms of public transportation in the Seattle area.</p>	

6. Does your medical school have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?	
2	<b>Yes, the medical school has both compost and recycling programs accessible to students and faculty.</b>
1	The medical school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the medical school.
<p><i>Score explanation:</i> In 2018, the UW Health Sciences (including the School of Medicine) composted 68% of its food waste, with the remainder ending up in landfills and a very small amount contaminating recyclable materials. The UW is working on implementing educational programs and improving existing systems to achieve their goal of keeping 70% of waste out of the landfill.</p>	

7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections?	
3	Yes, the medical school has adequate sustainability requirements for food and beverages and is engaged in efforts to increase food and beverage sustainability.
2	<b>There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is engaged in efforts to increase food and beverage sustainability.</b>
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is not engaged in efforts to increase food and beverage sustainability.

0	There are no sustainability guidelines for food and beverages.
<p><i>Score explanation:</i> The UW currently spends 7.0% of its food budget on locally grown/raised food, 3.3% on organic food, and 20% of the total food budget on locally processed food. Unfortunately, the percent of the budget spent on these categories has declined significantly in past years. However, the UW is working towards improving food sustainability. The campus also has a 1.5 acre urban farm that uses sustainable and climate-resistant methods to supply produce to dining services at the UW and to the greater community.</p>	

<b>8. Does the medical school or associated institution apply sustainability criteria when making decisions about supply procurement?</b>	
3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	<b>There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is engaged in efforts to increase sustainability of procurement.</b>
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.
<p><i>Score explanation:</i> This section applies specifically to UWSOM, Seattle campus. <a href="#">Here</a> there are many metrics measuring the supplies used and the progress towards a more sustainable campus. UW has laid out its stated goals for the institution and there are guides for purchasing certain items like recycled paper, but there is not a holistic guideline for all purchasing decisions such as electronics, chemicals etc. However, it is highly encouraged across campus to shop wisely for supplies. An example of the encouragement and recognition of good practices is the <a href="#">UW Green Office Program</a>. Note this program is optional for each office. It is further displayed to the public through the UW "<a href="#">Sustainability Map</a>" showing the details for each certified and tested building. This is a good start but is not an adequate substitute for a specific campus-wide holistic supply guide. The medical school is engaged in the green supply procurement but the guidelines are too narrow to be considered adequate for a full score.</p>	

<b>9. Are there sustainability requirements or guidelines for events hosted at the medical school?</b>	
2	Every event hosted at the medical school must abide by sustainability criteria.
1	The medical school strongly recommends or incentivizes sustainability measures, but they are not required.
0	<b>There are no sustainability guidelines for medical school events.</b>
<p><i>Score explanation:</i> There are no specific environmental guidelines for event planning. UW does have specific and narrow guidelines for the campus as a whole under the <a href="#">Sustainability Action Plan</a> but this</p>	

does not extend to events held by UWSOM. It is for this inconsistency, and lack of specific event guidelines that the score is a 0.

**10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?**

2	<b>Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.</b>
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the medical school to make lab spaces more sustainable.

*Score explanation:* The UWSOM falls under the UW campus. UW campus labs are able to apply for certification under the [Green Laboratory Certification](#) initiative. This technically meets all the requirements for the full credit, however it is not a mandatory application process. Our recommendation would be to make this application process mandatory to all labs so that they are aware of their faults for future improvement. It is based on a self reporting system by filling out a questionnaire. We recommend utilizing a third party evaluation for a decreased possibility of bias in the future.

**11. Does your institution’s endowment portfolio investments include fossil-fuel companies?**

4	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.
3	No, the institution is entirely divested from fossil fuels.
2	<b>The institution has partially divested from fossil-fuel companies.</b>
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.

*Score explanation:* The UW has made the explicit statement of divesting from coal companies- “Direct investment in coal companies whose principal business is the mining of coal for energy is prohibited,” but this is only a partial divestment from all fossil-fuel companies. There is not a written statement to prohibit investment in all fossil fuel companies, nor is there a statement guaranteeing some consistent investment in renewable energy companies. There is investment in renewable energy campus initiatives, but due to the lack of complete fossil fuel divestment the score remains a 2.

<b>Section Total (20 out of 29)</b>	<b>B</b>
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*Are there additional sustainability resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.*

# 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 Washington School of Medicine

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

Section	Raw Score	Grade
<b>Planetary Health Curriculum (30%)</b>	19 / 58 = 33%	D
<b>Interdisciplinary Research (17.5%)</b>	16 / 19 = 84%	A-
<b>Community Outreach and Advocacy (17.5%)</b>	10 / 14 = 71%	B
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	9 / 15 = 60%	B-
<b>Campus Sustainability (17.5%)</b>	20 / 29 = 69%	B
<b>Institutional Grade</b>	<b>60%</b>	<b>B -</b>