

Bridges to Access: The Impact of an Interdisciplinary, Educational Conference on Health Students



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Introduction

Climate-related health effects (CRHE), such as rising temperatures that worsen food insecurity or insect migrations that increase malaria transmission, **exacerbate health inequalities by disproportionately affecting vulnerable populations**: those of lower socioeconomic status, minority groups, women, elderly, and chronically ill (1). Thus, **climate and health education is vital in teaching health professionals** to both recognize these inequities and diagnose, treat, and prevent illnesses impacted by climate change (2). Surveys of medical students and health professionals indicate that the majority believe that climate change is a threat to health and that physicians should be aware of these issues. **Despite this, only a minority feel adequately taught about or prepared to address CRHE** (3, 4). One of the main barriers to health professionals' willingness to educate others about CRHE is lack of knowledge (4). **Addressing the education gap present in medical and health professional curricula can prepare future professionals to adequately educate and provide care for those affected by climate change** (3).

Objectives

1. Participants will be able to identify how climate change can affect individual and community health.
2. Participants will understand that the health impacts of climate change disproportionately impact medically underserved and already-vulnerable populations: those of lower socioeconomic status, minority groups, women, elderly, chronically ill, etc.
3. Participants will understand the positive influence student-led conferences have on advancing climate change awareness and health professional education on climate impacts.

Bridges to Access

Bridges to Access (B2A) is a student-led, interdisciplinary conference that educates health students on important health issues, **with a particular focus on underserved communities**. B2A 2022 occurred virtually on Feb. 11-12 and centered on **CRHE**. Conference programming included 3 keynotes and 14 breakout session options on topics including **CRHE, climate justice, & patient advocacy**.

Conference impact was evaluated using a 21-item survey measuring attendees' **pre/post-conference knowledge, beliefs, and self-efficacy on subjects related to CRHE**. The survey was deployed before and after the beginning and end of each day.



Robert W. Haley, MD
The Science of Climate Change



Elena Craft, MS, PhD
The Climate Vulnerability Index



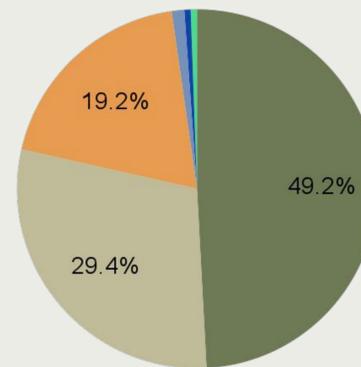
Lisa Doggett, MD, MPH
Patient Advocacy

Keynote Speakers

Results

Education Demographics of Student Survey Respondants (n=177)

- Medicine (87)
- Nursing (52)
- Pre-health (34)
- Public Health (2)
- Allied Health (1)
- Graduate College (1)



Survey Question	Average pre-survey score; Post-survey; P-value	Survey Question	Average pre-survey score; Post-survey; P-value
Q1. To what extent do you understand broad climate-related health effects?	2.68; 4.07; <.0001	Q14. Climate change is primarily caused by human activities (for example, burning fossil fuels).	3.99; 4.36; <.0001
Q2. I would be able to teach someone else about broad climate-related health effects.	2.55; 4.06; <.0001	Q15. To what extent do you feel prepared to address the health effects of climate change as a healthcare professional?	3.05; 1.83; <.0001
Q8. To what extent do you understand climate injustice?	2.49; 3.95; <.0001	Q16. Healthcare professionals have a responsibility to understand the broad health effects of climate change.	4.12; 4.61; <.0001
Q9. I would be able to teach someone else about climate injustice.	2.29; 3.92; <.0001	Q17. I believe addressing climate injustice and climate-related health effects will require an interdisciplinary team approach.	4.34; 4.6; <.0001
Q10. To what extent do you understand the health systems level impacts of climate change (for example, increased health care utilization and care delivery disruption)?	2.56; 3.95; <.0001	Q18. To what extent do you feel your institution's curriculum has adequately taught you about the broad health effects of climate change?	3.1; 2.41; <.0001
Q12. To what extent do you understand the causative factors of climate change?	3.11; 4.15; <.0001	Q20. I am concerned about the effects of climate change on health.	4.28; 4.56; <.0001

Top 3 Curricular Topics to Incorporate, Proposed by Attendees

1. Advocacy/Societal Change
2. Broad CRHE
3. Climate Justice, Health Disparities

Discussion

- Climate change poses one of the biggest threats to health **yet most health students have not received formalized education on its health effects**.
- Survey results suggest that **B2A is an effective model** for educating students by strengthening knowledge, self-efficacy, and climate-positive beliefs on topics related to health and climate. B2A can serve as an adaptable model for other academic institutions to use as they seek to incorporate health and climate education into their curricula.
- Survey respondents left with a **better understanding** of broad and specific health effects and felt **strengthened responsibility** as health professionals to understand CRHE and deepened personal concern about CRHE.
- The strongest changes in responses were in questions related to teaching, indicating that respondents **gained substantial confidence in their knowledge and ability to educate others** on these topics.
- Though attendees left with a better overall understanding of CRHE, respondents showed a negative change in their belief on their level of preparation as a health professional to address CRHE.
- This conference model allows for climate and health education **without the restructuring** of the medical curriculum.
- Attendees from various health professional backgrounds facilitated an **interdisciplinary discussion** which supported **collaboration, shared values, and exposure to additional viewpoints**.
- Future endeavors could attain greater participation with all health professional students by working with existing interdisciplinary campus resources and incorporating more health discipline representatives into the planning team.

Conclusion

- B2A, a student-led conference at OUHSC, has served as an effective means of climate and health education for health professional students.
- Our findings demonstrate that the conference increased understanding of climate change, proactive beliefs about climate change, concern about climate change and its health impacts, and students' confidence in their ability to teach about climate change.
- Student-led conferences help to bridge the knowledge gap and can contribute to the ultimate goal of an integrated climate and health medical curriculum.

References

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