

Planetary Health and Climate Change Committee: A Resident-Led Initiative for Education, Advocacy, and Action

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Introduction

Climate change has long been understood to pose one of the greatest global health threats of the 21st century, though discussions around its impact on human health have only recently started to gain mainstream momentum.^{1,2} In fact, the American Medical Association adopted a policy describing climate change as a public health crisis as recently as 2022.³ These discussions could not be more timely, especially considering that the US health care sector is an active participant in worsening climate change, contributing to US greenhouse gas emissions at an estimated 9 to 10 percent per year.⁴ Many graduate medical education programs, however, have little or no climate change health content, nor is climate medicine included in the Accreditation Council for Graduate Medical Education Core Competencies. Medical residents of all specialties are training in a context profoundly impacted by climate change, making them well-placed to advocate for changes in their education. This perspective will discuss a resident-led model for introducing climate health education and environmental justice advocacy into a residency curriculum, using relevant literature from other resident-led initiatives and our own experience forming the Planetary Health and Climate Change Committee (PHCCC) at the Lawrence Family Medicine Residency (LFMR).

Evidence for Resident-Led Initiatives

American medical schools have started to include climate health curricula during the last 3 to 5 years, largely due to concerted student-led initiatives such as the Planetary Health Report Card.^{5,6} At the time of this article, we had difficulty identifying resident-led climate health curricula in the literature. However, there are examples of successful resident-led curricula from many different specialties, including treatment of substance use disorder (emergency medicine), performance

of common bedside procedures (internal medicine and pediatrics), and nocturnal curricula to enhance the educational value of night float rotations (internal medicine).⁷⁻⁹ The implementation of a variety of different topics supports the idea that a resident-driven curriculum is a valid approach to addressing holes in residency education.

Although limited literature exists on resident-led climate committees, a similar dearth in diversity, equity, and inclusion (DEI) has been addressed by resident-led initiatives. For instance, a resident DEI committee from the University of California San Francisco pediatrics residency was successful in achieving institutional commitment to DEI, including recruitment and centering the needs of the community.¹⁰ The STRIVE Initiative at Northwestern University Feinberg School of Medicine used a mentorship framework led by residents of different specialties to support underrepresented medical students, while other organizations have succeeded in creating longitudinal health equity curricula led by physical medicine and rehabilitation residents.^{11,12}

There are excellent examples of resident-led advocacy efforts that have paved the way for improvements in residency training and patient care. For instance, wellness interventions led by general surgery and psychiatry residents have been successful in influencing resident satisfaction and improved perception of the working environment.^{13,14} Resident-driven advocacy has informed patient care by reducing delays in first-case starting time on a neurosurgical service, increasing early hospital discharges while maintaining resident education for internal medicine residents, increasing safety event reporting in psychiatry, and reducing patient cigarette consumption for radiation oncology patients.¹⁵⁻¹⁸

Establishing the Planetary Health and Climate Change Committee

Based at the Greater Lawrence Family Health Center (GLFHC), a Federally Qualified Health Center in

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Lawrence, Massachusetts, USA, LFMR prides itself on challenging systems of injustice.¹⁹ However, prior to 2022 GLFHC did not have a plan to address climate resiliency. GLFHC was only peripherally involved in local climate advocacy efforts. Similarly, LFMR did not have a climate health and environmental justice curricula, even though Lawrence is marked as an environmental justice population by the state.²⁰ Recognizing this gap, the PHCCC was formed by 4 residents who saw an opportunity to effect institutional change in climate health.

Education

An informal survey of first-year residents at LFMR in 2023 revealed that 3 out of 6 respondents had no exposure to climate medicine in medical school, and that there was an acknowledged deficit in available resources for residency programs to add climate medicine curricula.²¹ Thus, our goals for the new PHCCC were to ensure residents received frequent and repeated exposure to climate change effects on the health problems seen daily in patient care, with an emphasis on additional barriers many of our community members faced, such as language barriers and lack of reliable access to cooling or heating.

The PHCCC started with a pilot lecture to third-year residents in July 2023, which was positively received according to an internal survey in July 2023. Residents' responses confirmed a strong interest in further content. The PHCCC has expanded to include postgraduate year 1 to 4 in order to create a pilot curriculum for the upcoming 2024-25 academic year. The pilot curriculum will consist of 3 focused lectures and a repository of patient cases that can be used by faculty to easily integrate material into the residency's existing curricula. Information from the Climate Resilience for Frontline Clinics Toolkit provided by AmeriCares as well as Climate Resources for Health Education are free resources that can be incorporated into protected time for resident learning.^{22,23}

Advocacy

In our initial effort to demonstrate the efficacy of resident-led advocacy in the environmental justice sphere, the committee sought to unite GLFHC behind the goal of decreasing carbon emissions. We encouraged colleagues to sign a petition asking the clinic to join the Department of Health and Human Services (HHS) Health Sector Climate Pledge. The PHCCC presented the petition to the clinic's CEO and gained leadership support in this effort by (1) tying sustainability efforts to the clinic's broader mission of social justice; (2) making a financial case; and (3) using data from

Groundwork Lawrence and the Federal Emergency Management Agency (FEMA) to highlight the clinic's vulnerability to flooding and heat events.

In signing the HHS Climate Pledge, GLFHC became the first Federally Qualified Health Center to join. Working with GLFHC leadership, the PHCCC connected the clinic with industry experts to understand how best practices could be applied at GLFHC. As of late 2023, the clinic has signed a contract with an industry-leading group to design and implement a coherent sustainability strategy. The PHCCC continues to be directly involved in this process and is advocating for other changes throughout the clinic system, such as green energy sourcing and extreme weather planning.

With the help of GLFHC's CEO, the residents of the PHCCC connected with the environmental division of Massachusetts Senator Edward Markey's legislative team regarding his and Representative Ro Khanna's Green New Deal for Health. This bill proposes to put into law the vision of the PHCCC and like-minded advocates to promote climate resiliency. The PHCCC was given the opportunity to offer its suggestions for changes to the bill before its introduction and plans to continue to advocate for health systems sustainability with local, state, and federal representatives in the future.

Discussion and Conclusion

Resident physicians today will face more climate-related challenges for their patients, their practices, and themselves than any prior generation of physicians, regardless of specialty. Resident-led initiatives have been key to improving residency education and advocacy for many emerging health issues; climate health is the same. As evidenced by the work of LFMR's PHCCC, residents can be powerful motivators for change when appropriately supported by their faculty and institution. The successes of our PHCCC make a strong case for institutions actively collaborating with their residents to address their programs' unique needs for climate education. Our experience highlights that advocacy outside the clinical environment is an important part of that education. As the PHCCC model demonstrates, resident-led actions can inspire change, while fostering inter-residency and inter-institution collaboration to meet urgent climate health challenges.

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