context of our changing environment. Medical student participants in MS4SF recognize that BIPOC and low-income communities have historically lived near landfills and industrialized centers, contributing to higher rates of cancer, cardio-pulmonary diseases, and adverse birth defects. Yet, racial and climate health injustices are not discussed in medical education.

The MS4SF Curricula Guide offers best practices to incorporate these teachings into the medical school curriculum. MS4SF also supports the work of the Planetary Health Report Card, which offers a standardized rubric to assess where there are opportunities for improvement in these areas. Outside of curriculum reform, medical student participants engage in work across advocacy, research, climate-smart health care, plant-based health, ocean-health, partnerships, and communications. The students center justice in their innovations and projects and encourage medical colleges to do the same.

Without preparation through undergraduate and graduate medical education, we cannot serve as effective climate justice messengers. Ignoring the health implications of environmental racism and climate change not only hurts our BIPOC patients but also our health systems and communities. Our training should alert us to the warning signs of these crises. Our rapid response is long overdue.

Acknowledgments: The authors would like to thank the many leaders working to address environmental justice who have inspired this piece.

Funding/Support: None reported.

Other disclosures: None reported.

Ethical approval: Reported as not applicable.

Disclaimers: The views and opinions expressed by the authors do not necessarily reflect the views of the institutions with which they are affiliated.

Harleen Marwah, MS
Fourth-year medical student, George Washington University School of Medicine and Health Sciences, Washington, DC, hmarwah@gwu.edu; ORCID: https://orcid.org/0000-0002-1748-617X.

Natasha Sood, MPH
Third-year medical student, Pennsylvania State College of Medicine, Hershey, Pennsylvania.

The authors have informed the journal that they agree that both H. Marwah and N. Sood completed the intellectual and other work typical of the first author.

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A Call to Action: Students Establish a Culture of Bystander Intervention Early in Medical Training

To the Editor: Discrimination, harassment, unrecognized biases, and mistreatment are all forces that negatively influence health care work environments and outcomes. As the United States confronts social inequity nationwide, it is imperative that providers and leaders in medicine are keenly aware of how biases shape our profession and overall health care climate. An effective health care culture must uphold values, maintain accountability, and work to reduce barriers that prevent transparency, communication, advocacy, and growth. It is critical that all health care professionals are empowered with skills to intervene when mistreatment occurs and to lead teams to prevent and recognize mistreatment. However, little time is dedicated to such needs.

We created a novel 6-session, student-led, prevention-focused, small group Culture Change in Medicine curriculum as an action-based advocacy project targeted at immediate cultural change at our institution. Sessions are near peer-led where senior medical students facilitate small groups of junior students. Four sessions total are completed by all medical students at key transition points of training:

Session 1: Bystander Intervention, Preclerkship
Session 2: Response to Discrimination and Bias, Transition to Clerkship
Session 3: Advocacy, Postclerkship
Session 4: Leadership in Action, Senior Practicum

Peer leaders facilitate case-based discussions and deliberate possible interventional or protective strategies for victims or bystanders, empowering students with tools to prevent or address mistreatment. Peer educators undergo faculty development training sessions via live webinars and receive educator guides, facilitator tips, and supplemental resources. A faculty advisor oversees the content development and execution of the training.

To date, 2 classes of medical students completed sessions of this training, resulting in 510 person-hours of instruction. Feedback submitted through 97 anonymous postsession surveys is largely positive. Eighty-five students (87%) reported that the curriculum had important topics to cover during medical school and 92 students (95%) reported that their peer educators were knowledgeable on the topics delivered in the curriculum. Near peer leaders promoted buy-in and motivation from students, allowing for broader and more honest conversations about these sensitive topics, and provided a stronger sense of security and confidentiality without the presence of authority figures (faculty/staff).

Next steps include widening participation to other key groups such as clinical faculty, graduate medical education programs, and other health professions learners and faculty. We hope that our work can also translate to other institutions and provide a foundation for further dialogue and improvement in medical training culture, building new skills to confront the societal norms that lead to bias, discrimination, and mistreatment.

Acknowledgments: The authors thank the leadership of the Uniformed Services University School of Medicine for supporting student leadership in this endeavor. Additionally, this curriculum would not be possible without the time investment, professionalism, and passion of the many student peer educators. Finally, the authors thank Military Primary Care Research Network staff for their ongoing assistance in the development of curricular evaluation methods.
The National Institutes of Health Should Extend the Systems-Level Approach to Include Extramural Research

To the Editor: We appreciate Dr. Valentine’s commentary describing efforts within the National Institutes of Health (NIH) to promote change that leads to gender parity.1 We especially applaud both the recognition that individuals alone have a limited impact and also the systems-level approach taken to foster cultural change promoting inclusion within the intramural research program. This work within the NIH intramural program is an important step, and we call on the NIH to apply a similar systems-level approach to its extramural program, particularly given that $8 out of every $10 appropriated to the NIH is directed to the extramural program.2

Gender inequity is well described among biomedical researchers. The NIH Data Book3 clearly shows these disparities. Only one-third of NIH research grants are awarded to women. Further, the funding amount of research grants is on average 10% lower for women than for men. Recent years show promising signs, including a steady (albeit slow) increase in the percentage of women serving as principal investigators for research grants over the past 20 years, and the fact that over half of mentored research career awards were awarded to women in 2018. This progress is encouraging, yet directed efforts at the systems level are necessary.

To ensure this positive momentum continues, we recommend that the NIH systematically examine the gender and race/ethnicity of its reviewers, scientific review officers, and program officers who impact funding decisions. Beyond describing the individual’s characteristics, it is necessary to evaluate the relationship between reviewer gender and race/ethnicity, principal investigator gender and race/ethnicity, and outcomes of funding proposals. Understanding these data is a critical first step to taking systems-level action to decrease disparities. These evaluations must also be carried out on an ongoing basis and their results shared in the NIH Data Book to ensure transparency.

The NIH has the opportunity to lead a systems-level approach to enact cultural change within its extramural program. These efforts would be an important step to positively impact the persistent gender inequities among biomedical researchers and fix the leaky pipeline that is historically present within academic medicine.

Funding/Support: None reported.
Other disclosures: None reported.

Ethical approval: Protocol DBS.2021.203 (Ref # 935885), entitled “Students as Peer Educators and Advocates for Reform,” was reviewed by the Uniformed Services University’s Human Research Protections Program (HRPP) Office and determined not to meet the criteria defining research at 32 CFR 219.102, DoDI 3216.02, and applicable DoD policy guidance.

Disclaimers: The views expressed are those of the authors and do not reflect the opinions or policies of the Uniformed Services University, the Department of Defense, U.S. Navy, or U.S. Army.

Noelle S. Molter
Fourth-year medical student, Uniformed Services University, Bethesda, Maryland.

Kenneth C. Wise
Fourth-year medical student, Uniformed Services University, Bethesda, Maryland.

Dana R. Nguyen, MD
Associate professor and chair, Department of Family Medicine, Uniformed Services University, Bethesda, Maryland; dana.nguyen@usuhs.edu; ORCID: https://orcid.org/0000-0003-3506-9350.

Anna Volerman, MD
Associate professor, Departments of Medicine and Pediatrics, University of Chicago Pritzker School of Medicine, Chicago, Illinois; avolerman@uchicago.edu; Twitter: @annavolerman.

Vineet Arora, MD, MAPP
Herbert T. Abelson Professor of Medicine, Department of Medicine, University of Chicago Pritzker School of Medicine, Chicago, Illinois.

Valerie G. Press, MD, MPH
Associate professor, Departments of Medicine and Pediatrics, University of Chicago Pritzker School of Medicine, Chicago, Illinois.

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Recommendations for Reducing Inequalities Experienced by Female and Ethnic Minority Doctors in the United Kingdom

To the Editor: We were impressed by the many articles in the October 2020 issue of Academic Medicine that explore, as a group, the experiences of women and ethnic minority physicians in U.S. academic medicine. As UK medical students, we found these materials thought-provoking, which encouraged us to discuss similar disparities within the United Kingdom.

Since 2012, women have constituted over half of UK medical students.1 In 2019, 23% of UK medical graduates were Black or Minority Ethnic (BME), a 6% increase from 2012.2 Unfortunately, greater representation has failed to translate into improved career opportunities. Female doctors are paid 17% less than male colleagues and hold just 36% of consultant (i.e., attending) roles.2 Consultant BME doctors are paid 4.9% less than White colleagues.3 Worryingly, of 67,371 National Health Service staff who experienced work-based discrimination, 45.6% felt that it was based on their ethnicity and 21.7% on their gender.4

Progression of women and ethnic minorities within UK academic medicine remains slow.5 Women hold just 31% of clinical academic roles, receive only 28% of research funding and are significantly less likely to have authored a scientific paper.5,6 Eighty-two percent of clinical academics identify as White.5 Furthermore, BME principal investigators are less likely than their White counterparts to receive research funding.8 Gender and racial equity must be prioritized to harness the unique talents of those not traditionally represented in research and medicine.

A top-down approach may help disrupt the status quo. Institutions should research demographics, salaries, and experiences to highlight disparities and inform future action.9 Strong leaders, regardless of race or gender, must openly support, advocate, and demand equality.10 Similarly, students must feel safe, enabled to challenge discrimination, and be intransigent in striving for a more egalitarian profession.

Funding/Support: None reported.
Other disclosures: None reported.