Author: Escalante Enrique MD, MSHS; Smiley Yael MD; Agrawal Dewesh MD; Teach Stephen J. MD, MPH; Cora-Bramble Denice MD, MBA; Barber Aisha MD, MEd

Title: Increasing Pediatric Residency Class Diversity to Improve Patient Outcomes and Address Structural Racism

DOI: 10.1097/ACM.0000000000004468
Increasing Pediatric Residency Class Diversity to Improve Patient Outcomes and Address Structural Racism

Enrique Escalante, MD, MSHS, Yael Smiley, MD, Dewesh Agrawal, MD, Stephen J. Teach, MD, MPH, Denice Cora-Bramble, MD, MBA, and Aisha Barber, MD, MEd

E. Escalante is director of diversity recruitment and inclusion, Children’s National Hospital, and instructor, Department of Pediatrics, The George Washington University School of Medicine and Health Sciences, Washington, DC.

Y. Smiley is assistant professor, Department of Pediatrics, The George Washington University School of Medicine and Health Sciences, Washington, DC.

D. Agrawal is designated institutional official and vice chair for medical education, Children’s National Hospital, and professor, Department of Pediatrics, The George Washington University School of Medicine and Health Sciences, Washington, DC.

S.J. Teach is professor and chair, Department of Pediatrics, The George Washington University School of Medicine and Health Sciences, Washington, DC.

D. Cora-Bramble is chief diversity officer, Children’s National Hospital, and professor, Department of Pediatrics, The George Washington University School of Medicine and Health Sciences, Washington, DC.

A. Barber is residency program director, Children’s National Hospital, and associate professor, Department of Pediatrics, The George Washington University School of Medicine and Health Sciences, Washington, DC.
Correspondence should be addressed to Enrique Escalante, Pediatric Hospital Medicine, Children’s National Hospital, 111 Michigan Ave NW, Suite M-4800, Washington, DC 20010-2970; telephone: (202) 476-3044; email: eescalante@childrensnational.org.

Supplemental digital content for this article is available at http://links.lww.com/ACADMED/B199.

Acknowledgements: The authors thank Alexandra M. Sims, MD, MPH, for her efforts in promoting diversity, equity, and inclusion at Children’s National Hospital and for serving as the inaugural codirector of the Minority Senior Scholarship Program, and Craig DeWolfe, MD, MEd, Gabrina Dixon, MD, MEd, and Terry Kind, MD, MPH, for being part of the initial program design team for the Minority Senior Scholarship Program. The authors also thank Chidiogo Anyigbo, MD, MPH, the founder of the Diversity Dinner Series, and the steering committee of the Building Equity Initiative: Cara Lichtenstein, MD, MPH, Lanre Falusi, MD, and Jessica Hippolyte, MD, MPH. Finally, they acknowledge the contributions of all the residents, fellows, faculty, and staff at Children’s National Hospital who have contributed to the endeavors described in this report.

Funding/Support: None reported.

Other disclosures: None reported.

Ethical approval: The Children’s National Hospital Institutional Review Board deemed the studies described in this report as exempt from review.

Data: All data were obtained internally and do not require permission for use.
Abstract

Problem
The racial and ethnic makeup of physicians in the United States does not reflect that of the communities they serve. Addressing this disparity may improve patient outcomes and combat structural racism.

Approach
Starting in 2014, the pediatric residency program at Children’s National Hospital deliberately worked to assemble residency classes with racial and ethnic diversity that was similar to that of the Washington, DC community it served. This work consisted of 3 initiatives: the Minority Senior Scholarship Program (MSSP), a pipeline program for rising fourth-year underrepresented in medicine (UIM) medical students to expose them to careers in academic pediatrics; an enhanced applicant recruitment process for UIM applicants; and mechanisms like a diversity dinner series for UIM residents to find the support they need to succeed.

Outcomes
Since its inception in 2015, 73 participants have completed the MSSP, with 26% (19/73) going on to match at Children’s National Hospital. An additional 12 participants are completing the program during the 2022 Match cycle. The MSSP has also increased participants’ self-reported interest in pursuing a career in academic pediatrics, from 70% (14/20) prior to participation to 95% (19/20) after participation. In addition, the enhanced recruitment efforts have proven fruitful. The percentage of UIM interns at Children’s National Hospital has increased from 5% (2/40) in 2014 to 51% (21/41) in 2021.
Next Steps

The dimensions of diversity included in these initiatives will be expanded to include individuals from other marginalized populations, such as certain individuals of Southeast Asian descent, those who identify as LGBTQ+, and those with disabilities. An antiracism initiative has also been implemented in the residency program in collaboration with the hospital and partner medical schools.
Problem

The racial and ethnic makeup of physicians in the United States does not reflect that of patients in the communities they serve, and physicians from racial minority backgrounds remain underrepresented in medicine (UIM). Despite 13% and 18% of the population identifying as Black/African American and Hispanic/Latinx respectively, these groups only comprise 5% and 6% of the physician workforce.¹ These disparities are in large part the result of structural inequities that disproportionately affect children of color, making it difficult for them to matriculate and successfully complete high school, college, medical school, and residency.² In addition to the egalitarian desire for the diversity of the physician workforce to reflect that of the patient population, increasing physician diversity improves patient outcomes and may help diminish structural racism.³ For example, Black and Hispanic patients are more likely to be seen for medical care for new or ongoing problems if their physician comes from the same background.⁴ Racial/ethnic concordance is also associated with improved communication and patient satisfaction and with lower infant mortality.⁵ In the past decade, there has been a shift in U.S. births, with a majority of newborns now coming from “minority backgrounds.”⁶ Hence, the pediatric workforce must lead the way in increasing workforce diversity. Furthermore, diverse representation in academic medicine and health care leadership can influence research, education, advocacy, and budgets in ways that promote equity and address structural racism. This work is especially pertinent given the health disparities highlighted by the COVID-19 pandemic.⁷ Here, we describe how Children’s National Hospital built on the work of other institutions⁸ and developed sustained and successful approaches to increase the diversity of the pediatric...
residency program at a large urban academic children’s hospital in Washington, DC, where 43% of the population identifies as Black and 12% as Hispanic.

**Approach**

Children’s National Hospital is a 323-bed facility that is consistently ranked among the best pediatric hospitals in the United States. Approximately half of patients receive Medicaid assistance. The pediatric residency program is highly competitive, receiving more than 2,000 applications each year for 41 intern positions. Noting the differences in race/ethnicity between the patient population and the residents, residency program leaders took action in 2014 to increase the diversity of the intern class. The cornerstones of this work were a pipeline program, enhanced recruitment techniques, and stronger institutional support and community building for UIM trainees.

**Minority Senior Scholarship Program**

The Minority Senior Scholarship Program (MSSP) is a pipeline program implemented in 2015 to enhance the diversity of academic pediatricians. Through the MSSP, rising fourth-year UIM medical students are exposed to careers in academic pediatrics. The program combines clinical experiences, networking, mentorship, didactics, and professional development sessions. During a month-long clinical elective, participants develop mentoring relationships with UIM residents and faculty at Children’s National Hospital, as early mentorship of UIM medical students has been shown to increase their likelihood of pursuing a career in academic medicine. Initially funded through philanthropy, the MSSP is now supported by the chief executive officer’s operational budget and includes a participant travel and housing stipend and 0.1 fulltime
equivalent salary support for a program director. Despite the financial and educational impact of the COVID-19 pandemic nationwide, the MSSP remained fully funded through the 2021 Match as a virtual experience. For the 2022 Match, the MSSP returned to its original, in-person structure.

**Enhanced applicant recruitment**

Since 2014, the Children’s National Hospital residency program has invested in dedicated strategies to recruit strong UIM applicants. The program’s Director of Diversity, Recruitment, and Inclusion has led an enhanced recruitment process that aims to attract applicants who increase the program’s compositional diversity and have a history of commitment to diversity, equity, and inclusion. Opportunities for early engagement with potential applicants include local, regional, and national recruitment fairs and career development conferences for UIM medical students. To develop a personal, longitudinal relationship, the residents and faculty who attend these events strive to maintain contact with the students they meet for the duration of the residency application cycle and beyond. These residents and faculty find it personally gratifying and purpose-building to represent their institution while meeting and engaging with highly motivated students.

After interview offers are extended, efforts shift to removing obstacles for those applicants who are invited for an interview. For in-person interviews, the residency program offers a travel stipend to all interviewees who self-identify as UIM, so they have the opportunity to further explore the program and city. Current UIM residents serve as ambassadors and longitudinal points of contact for UIM applicants during the interview season. Each UIM interviewee is paired with at least 1 UIM interviewer or with a faculty member who has an interest in promoting diversity to reduce the potential for implicit bias, to highlight the institution’s
commitment to diversity, and to help applicants feel comfortable during their interview which, by extension, may positively influence their interview performance. Of the approximately 70 faculty members on the intern selection committee, about half self-identify as UIM.

Another hallmark of the recruitment process is the annual Diversity Grand Rounds and Reception held towards the end of the interview season. A UIM faculty member, a faculty member with expertise in health equity, or an external expert in diversity, equity, and inclusion is invited to lead the grand rounds, which is followed by a networking event. The event is open to the entire Children’s National Hospital community. Applicants are invited and encouraged to schedule their interviews to coincide with this event.

Concurrent with the interview season is the application review process. The intern selection committee includes a subcommittee that reviews the applications of UIM interviewees to identify characteristics that may have been overlooked during our routine holistic and mission-aligned review. These characteristics include having overcome adversity to reach the end of medical school, an extensive history of service and leadership, and the potential to meet unmet medical service needs, and are factored into applicants’ scores, which the residency program uses to build its rank list.

In addition to interviews, the chief residents facilitate second-look visits for all interested applicants. These visits provide applicants with an opportunity to return to Children’s National Hospital to meet faculty and explore areas of interest that they did not get to see on their interview day. UIM applicants whose experiences fit most closely with our mission-aligned selection criteria are reimbursed for travel expenses and offered individually tailored visits.
Lastly, longitudinal relationship building between applicants and educational and institutional leaders continues after interviews. This ensures that UIM interviewees get their questions answered and that residents and faculty remain engaged with applicants with common interests. Funding for these recruitment activities and salary support for the Director of Diversity, Recruitment, and Inclusion (0.1 fulltime equivalent) have been in place since 2017 and 2018, respectively, and are secured through the residency program budget.

**Diversity dinner series**

In addition to these recruitment efforts, the residency program focuses on inclusion, retention, and mentorship. Led by residents, a quarterly diversity dinner series was started in 2015 to provide time and space for UIM medical students, residents, fellows, and attendings to build community and informal mentoring relationships. These dinners help mitigate the isolation and mentorship challenges commonly experienced by UIM trainees and faculty. During these casual social gatherings, attendees discuss topics specific to their experiences as UIM physicians that may not be addressed in the competency-based residency curriculum or that they feel more comfortable discussing among others with similar experiences.

**Outcomes**

**Minority Senior Scholarship Program**

We collated application and recruitment data and surveyed MSSP graduates for their feedback regarding the program and their accomplishments since participating. Since its inception in 2015, 73 participants have completed the MSSP and an additional 12 are completing the program during the 2022 Match cycle. The MSSP has aided in the recruitment of top UIM applicants to our residency program. Participants have come from 47 different medical schools across the
country, and 19 of 73 (26%) have gone on to match at our residency program (see Figure 1).

Two additional participants returned for fellowship or faculty positions.

Through post-participation surveys completed by the first 2 cohorts of participants in 2015 and 2016, we learned that key to the success of the program were participants gaining confidence in pursuing training at a freestanding children’s hospital, the robust mentoring and networking opportunities, and the demonstration of the institution’s commitment to diversity (see Supplemental Digital Appendix 1 for the post-participation survey instrument and Supplemental Digital Appendix 2 for selected feedback from participants, both available at http://links.lww.com/ACADMED/B199). In addition, participants’ interest in a career in academic pediatrics increased, from 14 of 20 (70%) students prior to MSSP participation to 19 of 20 (95%) students after MSSP completion. Finally, many participants who have finished residency have pursued fellowships and are even academic faculty, suggesting that the MSSP is accomplishing its objectives.

**Enhanced applicant recruitment**

Since implementation of the enhanced recruitment and retention efforts beginning in 2015, the residency program has seen an increase in the number of UIM interns, from 2 of 40 (5%) interns in 2014 to 21 of 41 (51%) interns in 2021 (see Figure 2). This percentage (51%) is now more than 3 times the national average of UIM pediatric residents (16%) and 4 times that of UIM physicians nationwide (11%).

**Diversity dinner series**

To date, we have held 15 diversity dinners over 5 years. The average attendance has been 10 UIM residents per session, with the number of attendees increasing over time consistent with the
increase in UIM residents. Attendees completed post-dinner surveys and reported positive feelings about the events and indicated they would recommend them to their colleagues.

Challenges

Although these efforts have been successful, they have required a significant amount of time and dedicated effort. All 3 programs are now embedded in the mission and budget of the residency program and hospital. They are supported by hospital leadership and maintained by a coalition of interested and largely UIM trainees and faculty. Care has been taken to avoid the minority tax (i.e., the burden of extra responsibilities placed on UIM faculty and residents in the name of supporting diversity efforts). Children’s National Hospital leadership has committed to funding these initiatives, including protected time for faculty leaders. Furthermore, participation in activities that directly impact diversity, inclusion, and equity in the institution are included in the rubric for incentive pay and faculty promotion. Similarly, residents are offered academic credit for participating in the recruitment fairs, and they are advised to include MSSP mentorship activities in their CVs.

Next Steps

Continuing to expand diversity

While these efforts to increase diversity in the Children’s National Hospital residency program have been fruitful, the work is not complete. We recently expanded our definition of UIM to include certain individuals of Southeast Asian descent, and we are expanding our programs to include individuals from other marginalized communities, such as those who identify as LGBTQ+ and people with disabilities. We plan to apply the approach we described here to increase diversity across these additional dimensions. In addition, given that words like minority
may carry pejorative or belittling undertones, we are in the process of renaming the MSSP as the Advancing Diversity in Academic Pediatrics program.

**Antiracism initiatives**

Building a diverse workforce is one step to addressing structural racism; however, it does not automatically lead to a more inclusive environment. UIM residents continue to face microaggressions, discrimination, and racism as well as witness the unequal treatment of patients with whom they identify. Thus, we created a Building Equity Initiative that is overseen by the residency program director and challenges everyone at our institution to be more intentional about building a culture of inclusion in which residents are empowered to drive equitable outcomes for all children. This resident-led initiative is comprised of 6 working groups that focus on recruitment and representation, education, research, well-being, advocacy, and community partnerships.

**Cross collaboration**

As we work to build a more diverse, inclusive, and representative residency program, we recognize that efforts will need to extend beyond our institution. To that end, we engaged the diversity and inclusion committee at Children’s National Hospital, the antiracism coalition at our academic affiliate and partner medical school, The George Washington University School of Medicine & Health Sciences, and our other partner medical school, Howard University School of Medicine to ensure that our efforts encompass the medical students who rotate through our hospital and who will hopefully see themselves as future residents in our program.
In conclusion, this work has not only increased the diversity of our residency program but also increased faculty awareness of the systemic inequities in medicine and the importance of diversity. We hope our approach can serve as a model for other hospitals and residency programs looking to create a diverse workforce to improve patient outcomes and address structural racism.
References


[figure legends]

**Figure 1** Number of Minority Senior Scholarship Program (MSSP) participants by Match year. The full bars represent the total number of MSSP participants each year, and the black bars represent those participants who matched at Children’s National Hospital for residency.

**Figure 2** Number of underrepresented in medicine (UIM) interns in the Children’s National Hospital pediatric residency program by race/ethnicity and Match year. Other UIM includes 1 Filipino intern and 1 Vietnamese intern in 2020 and 2 Vietnamese interns in 2021.
Figure 1
Figure 2

![Figure 2](image-url)