Leading From the Front

An Approach to Increasing Racial and Ethnic Diversity in Surgical Training Programs

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LITERATURE REVIEW AND THREE-FACETED APPROACH

A literature review was initially performed to determine best practices for UIM recruitment specifically at the resident level. Due to limited findings, this was extended to UIM medical student and faculty recruitment. Using information garnered from the literature review in addition to innovating our own strategies based on our opinion, we formalized a three-faceted approach for UIM surgical resident recruitment.

The first facet was the development of UIM-focused, 4-week, visiting clerkship programs (VCPs). Our UIM VCPs offered $1500 reimbursement stipends for lodging and traveling expenses to interested students who were accepted after application review. The UIM VCPs were funded from the individual divisions’ budget with each program determining the number of positions they could fund (range of 1–4 positions). These UIM VCPs were advertised nationally and regionally. The selected students came to UPHS for 4-week sub-internship during their fourth year of medical school in the summer or fall of the year that they were participating in the National Resident Matching Program (NRMP).

The second facet involved the use of holistic review of residency applications. Holistic review of applications has received the full endorsement from the Association of American Medical Colleges (AAMC). Holistic review is a flexible, individualized way for institutions’ selection committees to assess and evaluate an applicant’s capabilities, providing balanced consideration to experiences, talents, and academic metrics. The premise is to attenuate the focus on traditional metrics (board scores, grades, number of authored publications) while heightening the emphasis on candidates’ experiences and attributes as that may be more indicative of success as a future physician.

The third facet involved implementing targeted outreach to candidates with the assistance of members of the University of Pennsylvania’s Alliance of Minority Physicians (AMP). AMP is a UIM-focused house staff, junior faculty, and medical student support and mentorship network that was established in 2014. Outreach by members of AMP to UIM surgical residency applicants before interviewing at UPHS, contact with the candidates during their...
The field of surgery has historically taken significant pride in leading our profession in safety, quality, innovation, and education. Thus, it would only be appropriate if surgical training programs began leading the way for the enhancement of racial and ethnic diversity in our physician workforce.

Through the implementation of a three-faceted approach, UPenn surgical training programs experienced a more than doubling of UIM representation among matched categorical surgical residency candidates from the baseline year (2014 to 2015) to 2017 to 2018. This increase did not reach statistical significance ($P = 0.8$), the Spearman correlation of 0.8 suggests a strong upward trend of UIM matches. We were also pleased to determine that the traditional metrics used to assess both the competitiveness of programs (mean maximum rank # to fill all positions) and matched candidates (mean USMLE Step 1 scores) were unchanged over this same period (Fig. 1B). The average maximum rank number reached to fill the categorical surgical residency positions during the base line year of 2014 to 2015 was 16. In 2017 to 2018, it was 15. The average USMLE Step 1 score for all matched categorical surgical residency candidates at UPenn during the baseline year (2014–2015) was 251. In 2017 to 2018, the average USMLE Step 1 score was exactly the same, 251. There was no statistically significant difference in either metric when comparing 2015 to 2018 ($P = 0.84$ and $P = 0.85$, respectively). We believe these findings address concerns that by enhancing racial and ethnic diversity among trainees, a program would potentially be jeopardizing the “quality” of its program or the candidates it selects. Importantly, since 2014 to 2015 there has been no attrition of these matched UIM surgical residents, which suggests that UIMs progress appropriately through their respective training programs.
FIGURE 1. UPHS surgery residency match results and metrics (2014–2018). UIM indicates underrepresented in medicine; UPHS, University of Pennsylvania Health System; USMLE, United States Medical License Examination.
before and then after instituting our approach. The resources necessary for making this effort scalable are primarily in human capital and leadership commitment. The only direct cost associated with our efforts involved the $1500 reimbursement stipends provided to our visiting clerkship students. Holistic review of applications and candidate outreach efforts did not require new faculty hires or expensive marketing consultants. With that being said, the dedication and time spent by our faculty and residents in these UIM recruitment efforts has been paramount and is admittedly an indirect cost these individuals have graciously absorbed.

It will inevitably be institutional dependent, but our recommendations for transferring our experience nationally include program directors’ and chairpersons’ commitment to holistic review of applications as well as appointing faculty members to lead the suggested outreach efforts. Our experience reveals that by implementing a well-thought-out strategy, an institution can enhance UIM representation among its surgical trainees. The diversification of our physician workforce will be dependent on efforts such as these, and surgery should undeniably lead the way.

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REFERENCES