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A Framework for Inclusive Graduate Medical Education Recruitment Strategies: Meeting the ACGME Standard for a Diverse and Inclusive Workforce

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Abstract

To help address health care disparities and promote higher quality, culturally sensitive care in the United States, the Accreditation Council for Graduate Medical Education and other governing bodies propose cultivating a more diverse physician workforce. In addition, improved training and patient outcomes have been demonstrated for diverse care teams. However, prioritizing graduate medical education (GME) diversity and inclusion efforts can be challenging and unidimensional diversity initiatives typically result in failure.

Little literature exists regarding actionable steps to promote diversity in GME. Building on existing literature and the authors' experiences at different institutions, the authors propose a 5-point inclusive recruitment framework for diversifying GME training programs. This article details each of the 5 steps of the framework, which begins with strong institutional support by setting diversity as a priority. Forming a cycle, the other four steps are seeking out candidates, implementing inclusive recruitment practices, investing in trainee success, and building the pipeline. Practical strategies for each step and recommendations for measurable outcomes for continued support for this work are provided. The proposed framework may better equip colleagues and leaders in academic medicine to prioritize and effectively promote diversity and inclusion in GME at their respective institutions.

Health disparities exist in every area of medicine, many of which are related to race and ethnicity. Exacerbating current racial and ethnic health disparities are the low numbers of physicians from underrepresented in medicine (UIM) backgrounds.[1] The diversity of the physician workforce has become an area of scrutiny in both the Liaison Committee on Medical Education (LCME) and Accreditation Council for Graduate Medical Education (ACGME) accreditation processes. To provide high quality, culturally responsive care for all patients with the goal of eliminating health disparities, the ACGME's new standard on diversity proposes that programs systematically cultivate a more diverse health care workforce.[2] Furthermore, all graduate education medical (GME) programs are being asked to detail what their institution and individual program are doing to meet this standard in their annual program update to the ACGME. The focus on this standard has created much needed urgency to have all leaders in GME advocate for and work toward diversifying the health care workforce with the ultimate aspirational goal being elimination of racial health care disparities.

Diversity in the health care workforce promotes more culturally responsive care, improves access to high quality health care for underserved populations, and broadens research agendas,[3] all components necessary to eliminate health care disparities. A study has shown that physicians of racial minorities are more likely to care for sicker minority patients.[4] In addition, minority patients are more likely to choose a physician of their own race/ethnicity and this concordance has been shown to increase the likelihood of minority patients seeking needed health care,[5–8] thus creating opportunities for health promotion and addressing chronic health care needs. Graduates of U.S. medical schools with a higher percentage of UIM students are better prepared to care for a diverse patient population, especially if they perceived a positive climate for interracial interactions that allows for perspective sharing between individuals of diverse backgrounds.[9]

Furthermore, given the data on improved training and patient outcomes from diverse teams,[10] accreditation bodies,[2,11] medical schools, and hospitals are prioritizing diversity and inclusion efforts.

The goal of medical education is to create a workforce that meets the needs of our population. A diverse workforce does just that. GME educators must partner with undergraduate medical education (UME) colleagues, medical schools, and hospitals to optimize recruitment and retention of UIM physicians. To our knowledge, the existing literature on recruitment and retention of GME trainees from diverse backgrounds is sparse; there has been more written with regard to recruitment of medical students.[12–19] A unidimensional diversity initiative typically results in failure,[20] and significant barriers to achieving diversity may exist, including the lack of prioritization of diversity by leadership, the challenge of developing or enhancing an institutional culture of inclusion, the challenge of modifying current recruitment practices to improve diversity overall, and mitigating selection committee members' implicit biases during trainee recruitment. Also, the push for increasing numbers of trainees, without addressing an environment of support and inclusion (or lack thereof), will lead to minimal, if any, long term change at a given program or institution.[21]

In this article, we propose a 5-point actionable framework (Figure 1) for diversifying GME training programs by focusing on resident recruitment and trainee success, while underscoring the importance of mandates from both the affiliated medical school and hospital that make a top priority of diversity and inclusion efforts. Our framework draws on the work of previous researchers at UME and GME levels and includes our own practical strategies for implementation of each step. We will highlight opportunities for GME to collaborate with UME on diversity efforts. While this framework focuses primarily on GME recruitment, concurrent

recruitment, retention, and promotion of UIM faculty and administrators is critical[22] but beyond the scope of this article.

Setting Diversity as a Priority

In order to maximize success, departmental leadership's prioritization of a culture of diversity and inclusion while increasing the number of UIM trainees is necessary.[23,24] Examining departmental and residency data regarding faculty and trainee race/ethnicity and benchmarking it against national means is often necessary to get not only a commitment from departmental leaders, but also the necessary resources, to support UIM recruitment efforts.[23]

An in-depth look at enhancing the department's culture of diversity and inclusion should occur concurrently with initial recruitment efforts, with the end goal being a supportive, nurturing, and inclusive experience for current and future UIM trainees. A complete assessment of the current culture should be conducted by a team of at least two individuals.[25] The culture of a program is built on past experiences, and the beliefs and actions the department has taken to address diversity and inclusion.

There are several possible approaches to assessing a department's existing commitment to diversity. The Association of American Medical Colleges (AAMC) outlines a 4-step process: reflective questioning regarding relevant criteria, data collection to gather qualitative and quantitative indicators of the institution's diversity and inclusion, synthesis and analysis to identify strengths and opportunities for development, and leveraging findings to translate the assessment into outcomes through communications with stakeholders and change agents.[25]

Seeking Out Candidates

An initial, and year-round, inclusive recruitment effort must include seeking out outstanding UIM candidates. Attending regional and national meetings of student-run organizations that focus on the needs and concerns of UIM medical students—such as the Student National Medical Association (SNMA), which supports black students, and Latino Medical Student Association (LMSA)—is often a high-yield strategy for both demonstrating an ongoing commitment to diversity and recruiting candidates from diverse backgrounds. Other opportunities include attending annual residency fairs at historically black medicals schools, such as the one held every spring at Howard University College of Medicine.

Candidates also scrutinize a program's (and department's) website for signs of diversity and inclusion. Including a statement of diversity as a valuable part of the program's mission is key, e.g., "The mission of the Pediatric Residency Program at UPMC [University of Pittsburgh Medical Center] Children's Hospital of Pittsburgh is to educate and support a group of diverse residents in an environment of innovation, collaboration, and discovery."[26] Of similar importance is including a commitment to diversity as a key descriptor of the program "We have a cohesive, supportive, and hard-working group of residents from diverse backgrounds who are devoted to patient care and to one another."[27] Furthermore, including links to diversity and inclusion webpages at the program, department, and institution level demonstrate a sincere and high priority commitment. Such webpages can be used to highlight current successes and provide evidence of an institution's commitment to diversity and inclusion.

Implementing Inclusive Recruitment Practices

In order to recruit and match a more diverse residency class, programs should maximize chances of success by inviting a more diverse group of applicants to interview. In this section we will review the racial bias that has historically existed in standardized tests and subjective clerkships grades. We will then introduce holistic review and other inclusive strategies such as faculty development in mitigating implicit bias and making an authentic commitment to nurturing a diverse residency class.

Bias in standardized tests and clerkship grades

Most residency programs receive a high number of applications that have historically been most easily sorted in Electronic Residency Application Service (ERAS) by United States Medical Licensing Examination (USMLE) scores (Step 1 typically). This screening technique results in bias against UIM students, who, as a group, have been shown to perform worse on standardized tests, such as the 10 to 20 point differential noted for white vs. black USMLE Step 1 test takers.[28–32] Other studies have shown that on average UIM and female students perform below the level of their white, male counterparts on standardized exams,[29–31] which have only been shown to predict future licensure/certification exam pass rates,[30,32] not performance in training. Focusing on an applicant's grades in clinical rotations may not be the answer to how to fairly and equitably select residents since clinical performance evaluations are subject to the implicit bias of attending and resident evaluators, and racial disparities in grades have been reported.[33] Furthermore, some clinical rotations have an end of the rotation standardized test as a major contributor to the final grade. The ideal strategy is to have a holistic review of all applications where the screening criteria and emphasis are not based on test scores and grades alone. In addition, the program director or even a subgroup of the selection committee can individually

review UIM candidates by their self-identified race/ethnicity in ERAS, using the same universal criteria as for non-UIM candidates.[34] While not surprising given the disparities noted above, racial disparities in induction to the Alpha Omega Alpha (AOA) Society have also been reported,[35] and therefore referencing AOA membership is not an inclusive way to choose applicants to interview.

The argument that that there are "just too many applicants" to review fully is a symptom of a system that does not value diversity enough to dedicate resources to equitably review all candidates in the applicant pool. Approaches to allocate appropriate resources to support faculty members of the intern selection committee to do this administrative work may include blocking clinic for 1 or 2 days, training administrative staff to do a first pass of the candidates, and/or asking members of the diversity and inclusion committee to volunteer their time to review applications.

Therefore, a department would invest in the resources (faculty or administrative staff time) needed to evaluate all candidates in the pool using a universal set of criteria, including elements obtained via holistic review (elaborated upon in the next section) of the candidate's experiences and attributes, in addition to their performance on metrics.

Holistic review

The AAMC has recommended the strategy of holistic review of an entire applicant pool to increase diversity in a trainee class. Holistic review is a flexible, highly individualized process by which balanced consideration is given to the candidates' experiences, attributes, and academic accomplishments (e.g., metrics).[14]

With the overreliance on easy-to-filter metrics such as USMLE scores and AOA status, program directors may never review a talented UIM student's application before filling all their interview slots, despite that student being equally qualified to be an excellent physician.

The "experiences" domain considers the path that applicants have taken to get this point, including their hometown (inner city, suburban, or rural; e.g., did the applicant spend summers working on his/her family farm rather than engaging in other activities?), educational background and geographic distance traveled for their educational pursuits, employment history, and past research and/or clinical experiences. The "attributes" category includes the personal and professional characteristics that have contributed to an applicant's achievements, and includes communication skills, leadership, intellectual curiosity, and resilience. This category also includes other formative characteristics or experiences such as languages spoken, socioeconomic status, and demographic attributes that shape identity (e.g., race, ethnicity, and gender). For instance, volunteer activities listed in the curriculum vitae give information about an applicant's commitment to service and their willingness to take on leadership roles.

Program directors and selection committee members can find experiences and attributes described in the opening section of the Medical Student Performance Evaluation (MSPE), letters of recommendations, and an applicant's personal statement. Application reviewers will need to be careful to monitor for gender and racial bias in the adjectives used to describe applicants in their MSPEs and letters of recommendation.[36] One solution we have used to mitigate this type of bias is to have the same application reviewer(s) review every application from a specific school(s), i.e., one reviewer would review all the application materials for students applying from Harvard University, George Washington University, and University of Pittsburgh. By being

more familiar with the school, opportunities available at the school, the MSPE letter, and letter writers, the reviewer may be able to recognize subtle bias more readily.

Ideally, a program director and selection committee would balance these three categories equally, and therefore give less, rather than all, weight to metrics if the applicant has overcome familial hardships and/or actively volunteered in the community during medical school. Sometimes this balance may mean the program be willing to take on some additional coaching and mentorship (e.g., with an applicant with a USMLE score of 190, but who has held numerous positions of leadership while in medical school and has excellent reviews on her communication and teamwork skills in her clerkship evaluations). These young physicians typically thrive once they match into a program willing to invest in their success and support them during their training with strong mentorship. Tracking the number of UIM applicants, invites, interviews, matches, and future careers over time can provide data about how well holistic review is working.

The data from medical schools that incorporate many elements of holistic review show that they have successfully increased their class diversity compared with those schools who did not.[37] This has also been the experience of several residency programs across the country, including UPMC.[38,39]

Additional inclusive recruitment practices

Beyond holistic review, there are other strategies that internal medicine residency programs have included as part of an inclusive recruitment strategy: training faculty interviewers and members of the intern selection committee on implicit bias, ensuring a diverse group of faculty participate in candidate interviews and as selection committee members, expressing a genuine

and authentic commitment to the success of each resident during the recruitment day, conducting structured interviews, and blinding interviewers to applicants' academic metrics.[40]

Interviewer implicit racial, ethnic, or gender bias may lead to less favorable rating of a (discordant) candidate's interview and can affect the candidate's perception of a program if they sense the interviewer's bias.[41,42] UIM candidates may perceive a paucity of verbal and non-verbal indicators of comfort or friendliness due to the implicit bias of the interviewer as reflective of the culture of inclusiveness at that program. Implicit bias training would ideally be led by an experienced and/or trained faculty member in the topic. The AAMC[43] and the consulting firm Cook Ross[44] specifically provide Train the Trainer sessions to meet this need.[45] The Ohio State University College of Medicine (OSUCOM) medical school admissions committee implemented a training session led by a Cook Ross trained faculty member.[12] The session was preceded by the request that all faculty members completed 3 implicit association tests on race, gender, and sexual orientation, which are available on a free website run out of Harvard University.[46] After testing, 67% of survey respondents thought testing may help reduce bias and 48% were conscious of their individual bias when interviewing.[12] In the following year, OSUCOM noticed an increase (although not statistically significant) in the matriculation of applicants from groups underrepresented in medicine.[12]

Diversity of interviewers and selection committee members should be carefully considered to diffuse the concentration of a single type of implicit bias. Groups that may have less implicit bias include residents, younger faculty, women, and UIM faculty.[47] In addition to training and inviting diverse faculty members to conduct interviews,[48,49] including a visual reminder of strategies to mitigate implicit bias in the interview packet may help faculty to be mindful and use such strategies during the interview.[50]

During the interview day, we advise that the program director state clearly that the program and department are committed to diversity and inclusion, and how that manifests through a commitment to the success of each resident trainee. Detailing specific interventions (e.g., board preparation programs, bystander training for faculty to support residents if they experience overt discrimination and microaggressions from patients and staff, faculty development for mentoring across differences) strengthens the message that the program has a deep and sustained commitment to diversifying its make-up.

Structured interviews, including multiple mini-interviews, that incorporate behavioral and situational questions and rubrics for interview evaluation can mitigate bias and help counteract personality and ability inferences. They also are better able to predict residency performance and have higher validity than traditional interviews.[51] Despite this, as few as approximately 30% of residency programs may be using structured interviews.[49,52] Interview validity improves if questions are based on analysis of what the job, in this case medical residency training, entails and reliability increases when structured and anchored ranking scales are used.[49,52] The AAMC's Best Practices for Conducting Residency Program Interviews guide details steps to develop behavioral and situational interview questions and corresponding competency assessment rating scales.[53]

Investing in Trainee Success

Programs and departments must prioritize diversity and inclusion year-round. Many programs confront the pitfalls that come with focusing on recruitment without change in the culture: trainees experiencing discrimination and microaggressions, leading to stereotype threat, leading to burnout and possibly attrition.[54] It is key to have programs in place to support all residents: board preparation programs, programs to support finding mentors of similar backgrounds, early

research mentor pairing to get them involved in research projects, career development counseling, and guidance in professional identity formation.[55]

Furthermore, we recommend resident and faculty be trained in bystander interventions for overtly discriminatory actions or microaggressions on the part of patients and/or staff.[56,57] Faculty should also receive faculty development on mentoring across differences.[58,59] Outcomes measures for this domain include research productivity (poster/oral presentations), matching in top fellowship programs and jobs, and leadership positions during and after training.

Building the Pipeline

Building the pipeline, in its broadest sense, means increasing the number of people from one's community who are nurtured academically and socially not only to pursue careers in science and medicine, but also to be competitive candidates and successful students, trainees, and physicians.[60] Building the pipeline and investing in future UIM trainees will help alleviate what some leaders in academic medicine consider the "zero sum game" of competing against each other for a small pool of applicants.[61]

For the program and department at the initial stages of addressing diversity and inclusion, a realistic place to begin is at the medical school level.[62] UIM medical students are known to have higher medical school attrition rates and report less supportive social and learning environments[63]so intentional efforts to support and develop UIM students may be helpful. Intentional efforts may include advising and mentoring UIM students and hosting developmental events such as the Building the Next Generation of Academic Medicine Career Development Regional Conference or local interview preparation workshops geared towards UIM students.[63,64] Minority medical student organizations are underutilized but valuable resources.[15] Residency programs can specifically partner with local chapters of student-led organizations that support

UIM students such as SNMA, LMSA, White Coats for Black Lives, and others, to mentor, showcase their field and inclusion efforts, and recruit future residents from within their institution.[15] This has been a successful strategy at the UME level,[15] and the GME level.[65,66] We encourage program leadership, and/or representatives from the local GME community, to attend the regional and national meetings of SNMA and LMSA to showcase their institution's programs and commitment to diversity and inclusion.

For the program and department at more advanced stages of diversity and inclusion work, residency faculty and trainees, together with UME and affiliated medical school students, can partner with local elementary school, high schools, and colleges to expose UIM students to careers in medicine.[22,67–69] If your medical school has a summer program for students of UIM backgrounds, that may be another opportunity where residency faculty and trainees can provide mentorship and make connections with potential future physicians.[69] Likewise, explicit efforts to recruit and develop fellows and faculty from within one's training programs is another way to build the pipeline of future UIM physicians.[22] Concurrent attention to UIM faculty recruitment and retention practices is necessary and the coordination of diversity and inclusion efforts across the academic health center may prove to be effective in building and fortifying the UIM pipeline.[22]

Concluding Remarks

Diversity and inclusion. Health disparities. Health equity. The time is now to link these initiatives together to improve education, patient care, and the health of our communities. A diverse health care workforce is a key component to eliminate health care disparities, so much so that the ACGME has created a standard for all GME training programs to meet in this regard. We have outlined a 5-point framework to create sustainable diversity and inclusive recruitment

practices. There must be a commitment not only to increasing the diversity of training programs but also to implementing mentoring and career development programs key to trainee success. Formal implicit bias training, including holistic review of applications, for interviewers and intern selection committee members will be needed to ensure the recruitment of a diverse residency class. Once we have succeeded in enhancing the culture of diversity and inclusion, we must sustain it and celebrate it to ensure long-term success.

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Figure Legend

Figure 1

Framework to address the Accreditation Council for Graduate Medical Education standard on creating a diverse and inclusive workforce focusing on trainee recruitment five key steps, with examples.

Figure 1