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Racial and Ethnic Diversity in Academic Emergency Medicine: How Far Have We Come? Next Steps for the Future.

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Abstract

Although the U.S. population continues to become more diverse, Black, Hispanic, and Native American doctors remain underrepresented in Emergency Medicine (EM). The benefits of a diverse medical workforce have been well described, but the percentage of emergency EM residents from underrepresented groups is small and has not significantly increased over the past 20 years. A group of experts in the field of diversity and inclusion convened a work group during the Council of Emergency Medicine Residency Program Directors (CORD) and Society for Academic Emergency Medicine (SAEM) national meetings. The objective of the discussion was to develop strategies to help EM residency programs examine and improve racial and ethnic diversity in their institutions. Specific recommendations included strategies to recruit racially and ethnically diverse residency candidates and strategies to mentor, develop, retain, and promote minority faculty.

Background

Increasing the racial and ethnic diversity in the healthcare workforce is a national priority that has been advocated by numerous medical professional societies including the National Academy of Medicine (NAM) and the Association of American Medical Colleges (AAMC).[1-3] The benefits of a diverse workforce have been well documented and include improving access to care, increasing patient satisfaction, and enhancing the learning environment in medical education.[4-7] Despite these benefits, Black, Hispanic, and Native American physicians remain underrepresented in US medical schools, in graduate medical education (GME), and among all

practicing physicians.[8] Lack of racial and ethnic diversity in the physician workforce is a challenge in most medical specialties, including Emergency Medicine (EM).[9]

Although EM as a specialty has experienced tremendous growth over the last decade, the field struggles to attract physicians from diverse demographic backgrounds. Black, Hispanic, and Native American doctors continue to be underrepresented and their respective proportions among EM trainees in GME have not changed substantially in the last twenty years.[10] Recognizing the impact of this underrepresentation on the future of EM, the Academy for Diversity and Inclusion in Emergency Medicine (ADIEM) for the Society for Academic Emergency Medicine (SAEM) and the American College of Emergency Physicians (ACEP) have incorporated diversity and inclusion as part of their mission and strategic plan.[11]

Over the last decade, there have been several initiatives to improve diversity in EM residency programs. In 2008, while many EM training programs recognized the importance of workforce diversity, many EM residency program directors reported being unaware of best practice strategies to recruit racially and ethnically diverse physicians.[12] To address this knowledge gap, the Council of Emergency Medicine Residency Directors (CORD) requested that a panel of CORD members with expertise in workforce diversity and inclusion in medical education lead a workgroup on racial and ethnic diversity in EM as part of the best practices track during the 2008 CORD Academic Assembly. This panel of experts subsequently published a set of recommendations designed to augment physician diversity in EM (Table 1).[13]

Ten years have passed since the initial publication of these diversity recruitment recommendations. Nevertheless, a recent study has shown that these best practices have not widely been adopted in EM with only 46% of program directors having implemented just two strategies.[12] Common reasons EM program directors cited for not implementing diversity recruitment strategies included a lack of resources, both in terms of money and time, and not believing that diversity was an organizational priority.[13] While the healthcare landscape in the US has changed dramatically during this time and the US population has becoming increasingly diverse, diversity in EM has stagnated. In light of these findings, a workgroup on diversity and inclusion reconvened at the CORD Academic Assembly in 2018 to address the current state of diversity in EM. Workgroup participants were recruited from a network of EM faculty with expertise in the field of diversity and inclusion in academic medicine. Participants included residency program directors, assistant program directors, associate deans of diversity, and

faculty with significant research and leadership experience in physician workforce diversity. The purpose was to reflect upon the challenges to attaining a racially and ethnically diverse and inclusive training environment and to update and refine the 2008 CORD best practice recruitment strategies to promote a diverse workforce in EM. In this report, we present the findings of this workgroup.

Recruiting and Selecting Diverse Applicants while Building a Pipeline for the Future

The workgroup identified several strategies to recruit diverse applicants. These strategies emphasized programs and policies to increase both the number of applicants applying to EM overall and programs to make specific EM residency programs more attractive to diverse candidates. The most commonly discussed strategies and programs included 1) Visiting Elective Clerkships (VECs) for students underrepresented in medicine (URiM)[14], 2) increased engagement in minority medical student organizations, and (3) Second-Look Weekends for minority applicants.

VECs for URiM students have proliferated in the last decade. Prior to 2012, few institutions sponsored VECs for students who self-identified as URiM. Currently, there are more than 30 such programs in EM across the country. Although there is significant variation in the implementation of these programs across institutions (some programs offer a stipend but maintain an educational experience identical to traditional away rotations while other programs offer an educational experience entirely unique to the traditional away rotation), the VECs are typically 4 week rotations designed to give minority candidates an enriching clinical experience, research opportunities, advising and mentorship. Residency programs commonly require applicants to VECs to submit a personal statement describing their career goals and interest in EM, letters of recommendation, and a transcript of grades, and applicants are often selected based on the overall strength of their application. The overarching goal of these programs is to increase the number of minority applicants to EM by increasing students' awareness of the respective academic medicine programs. The hope would be to increase the URiM student's consideration of the host institution as a site to complete residency training. VECs provide valuable networking, mentorship and advising for minority students, which is especially important for students coming from historically black colleges and universities often without EM residency programs. Unlike traditional away rotations, VECs generally offer a stipend to help students finance travel and housing. The average stipend offered is $1,500. The Society for

Academic Medicine maintains a list of all VECs which can be found at: www.saem.org/cdem/resources/medical-student-resources/underrepresented-minority-scholarships.

Increased engagement with minority medical student organizations, such as the Student National Medical Association (SNMA), the Latino Medical Student Association (LMSA), and the Association of Native American Medical Students (ANAMS), was a commonly cited strategy for recruiting diverse candidates into residency training programs. These organizations have national and regional conferences that incorporate recruitment fairs which are attended by large numbers of students from URiM backgrounds. In 2018 SNMA national conference hosted greater than 1,000 URiM attendees. These fairs provide a rich opportunity for residency programs to interact with students and show that their institutions value diversity.

The third most commonly discussed recruitment tool was the Second-Look Weekends for diverse candidate following the residency interview season. Second-Look Weekends for URiM students differ from the traditional post interview Second-Look Weekends. These are deliberately and strategically planned to bring minority medical students, house officers, faculty from different specialties, and members of the local community together for networking, mentorship, and to give URiM applicants greater exposure to the host institution. Second-Look Weekends allow academic medical centers to demonstrate a community supportive of diverse candidates. While the authors are unaware of any published literature describing the efficacy of Second-Look Weekends, an internal review of Denver Health's Second-Look event demonstrated that 42% (9/19) of participants ultimately matched at Denver Health and that 63% of participants reported that the Second-Look event "positively influenced" their ultimate ranking of Denver Health on their residency match list.

In addition to specific recruitment programs, the workgroup identified several applicant selection strategies useful to match a diverse residency class. From the perspective of GME, selecting a diverse residency class should be approached with a deliberate strategy that will guide and focus efforts. One of the first steps is to define diversity and clarify what comprises a diverse residency class at one's institution. With a common understanding of diversity, everyone involved in the resident recruitment process will be aligned in efforts to achieve a diverse residency program. The AAMC published its definition of persons underrepresented in medicine and schools of medicine may also have defined those underrepresented in medicine.[14] These

definitions can be helpful starting points, but a residency program can expand upon these definitions to include people that reflect a department's values and patient population, such as LGBTQ persons and persons with low socioeconomic status.[15]

Another aspect of a strategic plan that primes and guides diversity recruitment efforts is having a statement on diversity and inclusion for your program and department. Publishing a statement on diversity and inclusion formalizes and reinforces a commitment to diversity, equity, and inclusion. This can also add to a program's branding by displaying their unique character and core values, particularly if it is incorporated into a department's mission statement and formally approved by the highest levels of a department's leadership.

While there has been an increase in departmental diversity committees to spearhead diversity efforts, there is a scarcity of research to document the impact of a diversity committee on residency diversity. In practice, departmental committees do provide a vehicle for members to focus and organize their efforts and exert influence within an organization or department. In this context, diversity committee members may be tasked with defining diversity, putting forth a diversity statement, deciding upon a diversity enhancement plan, participating in aspects of the diversity strategic plan, and advocating for change and progress. To achieve maximum effect, we recommend that the committee be comprised of members from diverse backgrounds including but not limited to race, ethnicity, gender, age, level of training, and area of clinical focus. Additionally, we would recommend that academic medical center leadership, especially the institution's Chief Diversity Officer, be invited to serve as a diversity committee member.

The residency application and interview process are of paramount importance in enhancing and maintaining a diverse residency. Emergency medicine residency directors and residency leadership should engage in holistic application review to increase their residency diversity. This entails deliberately engaging in application review as a mission-driven and diversity-aware process.[16] For example, a department may have a mission to reduce health disparities and improve health care and health care access for underserved communities. In a holistic application review that aligns with this department's mission, an applicant's depth of advocacy, research, and leadership activities for disenfranchised and underserved patient populations will be heavily weighted in a decision to interview or highly rank an applicant in the National Resident Match Program (NRMP) match process. The weight of these accomplishments would be higher than the weight of a standardized test score, for instance.

Holistic review does not mean discarding standardized test scores or minimum required grades from review. Rather, it is a process for programs to consider an applicant's capabilities which takes into account multiple sources and aligns the selection criteria with the program's mission. Thus, a program's measure of qualification and merit will be defined comprehensively and since holistic application review is individualized, the process and outcomes will vary by programs or institutions. The AAMC has resources to guide medical school leadership in carrying out a holistic review in admissions, and there is preliminary evidence that application of these principles can yield a more diverse interview pool for medical schools.[17,18] These same concepts may be scaled and adapted for residency programs.

As part of the holistic application review process, residency program directors should note that there is mounting evidence of disparities in some medical school evaluations and accolades related to residency recruitment. In a 2017 study, the odds of Alpha Omega Alpha (AOA) membership was over 6 times greater for white students than for black students, and almost two times greater than for Asian students.[19] In recognition of potential bias in AOA membership, there are medical schools that blind membership committees to candidate identities and schools will indicate this on their Medical Student Performance Evaluation ("Dean's Letter") description of AOA membership. Use of the United States Medical Licensing Examination (USMLE) Step 1 scores as a screening tool may also result in unintended consequences. Contrary to population perception, the USMLE was not designed to predict residency performance or even identify test takers with substantial differences in medical knowledge. The test was designed to identify test takers that have inadequate medical knowledge and those that are eligible for state licensure after completion of all three components.[20] Multiple studies have shown that women of all races and ethnicities, in aggregate, tend to score lower on the USMLE Step 1 compared to men and that Black, Hispanic, and Asian medical students, in aggregate, tend to score lower on this exam than White medical students.[21-23] Consequently, and overreliance on USMLE Step 1 scores when screening applicants for a residency interview may limit applicant diversity.[24]

To address implicit bias in the application review and interview process in a best practices approach, residency leadership and those involved in selecting applicants to interview and constructing a rank list should undergo training to identify and address unconscious bias. Professional organizations in EM, such as ACEP, recommend that we promote this training for all providers within our specialty.[11] One such intervention that was employed within medical

education is the Implicit Association Test (IAT), a widely validated tool to detect strengths of automatic associations of particular groups with certain positive and negative characteristics. One medical school administered the test to its admissions committee and found that while almost all committee members reported they had no racial bias, faculty had a strong unconscious white preference, and students had a moderate unconscious white preference. The study also found that committee members believed the IAT was helpful in reducing bias and were conscious of their IAT results in the admissions process.[25] Another method to mitigate implicit bias on the selection committee is to ensure that the selection committee has diverse members. We advocate for residency programs to actively recruit diverse membership for the selection committee. As an example, Denver Health's committee features program directors, nurses, residency program coordinators, faculty with a variety of academic interests, members of the diversity committee, and residents.

Workgroup members also stressed the need for EM programs to engage in diversity pipeline initiatives. Pipeline and outreach programs, also known as enrichment programs, are designed to increase the URiM representation in the health professions.[26,27] These pipeline efforts take various formats: middle school, high school, undergraduate, post-baccalaureate, summer program, and academic year Saturday programs.

The Liaison Committee for Medical Education (LCME) Standard 3.3 entitled Diversity/Pipeline Programs and Partnerships provides guidelines that an institution "…has effective policies and practices in place, and engages in ongoing, systematic, and focused recruitment and retention activities, to achieve mission-appropriate diversity outcomes among its students, faculty, senior administrative staff, and other relevant members of its academic community."[28] Although rigorous evidence-based assessments of pre-medical pipeline program accomplishment are scarce[29], many have sustained. Notable pipeline programs such as the Summer Health Professions Education Program, the Summer Medical Dental Education Program (sponsored by the Robert Wood Johnson Foundation), Health Careers Opportunity Program (sponsored by the Health Resources Services Administration), the Medical Education Development program at the University of North Carolina, Mentoring in Medicine, and the Tour for Diversity in Medicine have had long standing success of student participation.

According to a recent survey,[12] 35% of program directors reported that the small pool of URiM applicants was the greatest barrier to recruiting a diverse class of residents. Emergency

medicine physicians can be involved in every aspect of these pipeline programs from leadership to speaker to facilitation of clinical workshops. Engagement of EM physicians allows students to better understand the role that EM has in the community and consider EM as a career early in their health care exposure.

Retaining Diverse Candidates in Academic Medicine

Strategies to recruit URiM students, residents, and faculty are not fulfilled without retention. Well intended and thought out plans to recruit are likely not to achieve long term success without careful self-assessment and deliberate consideration to retention. Studies have shown that often recruitment and retention are poorly coordinated.[30] In addition, many institutions will relax efforts after even a single hire.[31]

Important factors that have been shown to contribute to retention of URiM learners and faculty can be divided into leadership, culture, mentorship, and development.

Leadership is essential for building a successful recruitment and retention program. Leaders must be directly involved and vested in all aspects of outcomes. This is most effective when institutional and department level goals align both publicly and privately. Visibility of commitment to a diverse, inclusive, and equitable environment is essential and important. Leadership's words and actions must align to signal that recruitment and retention of URiM faculty is not only a goal but a value of the department and institution. One of the best ways to emphasize this visibility and commitment is to include measures of diversity and equity on department dashboards or score cards that not only reflect on the performance of the department, but also of its leadership. Linking incentives to success in retaining URiM faculty can be very effective. Budgets are also a visible and valuable tool to reflect commitment since dedication of funds to not only the expense of recruitment, but arguably the more important phase of retainment and development sends a clear message. Ultimately senior leaders in champion roles have the opportunity through visibility and funding support to showcase priority and value. This includes continued communication after acceptance or hire with URiM candidates. Few other individuals have the ability to bring life to the message and coordinate the resources and vision to retain a diverse and inclusive environment.

Leaders can also be instrumental in helping to change culture. While URiM faculty and trainees working on diversity in EM should be supported as leaders in improving racial and ethnic diversity in EM, it should not be assumed that all URiM faculty will want to focus on diversity and equity initiatives, nor should this work be the sole responsibility of URiM faculty. Non-URiM faculty have an important role in creating a culture welcoming to URiM physicians, supporting and mentoring URiM trainees, and implementing diversity initiatives. Culture is important to consider both at an institutional level and a more local or department level. Institutional commitments mean far less if the environment in which the recruit trains or works is unwelcoming or even hostile. Communities with a higher minority population have an advantage to both recruitment[32] and retention of URiM faculty, as do medical schools with higher percentages of minority students[32] Although intuitive, this factor must not be taken for granted. Many institutions find it challenging to develop a community in their microenvironment, which can further contribute to fears and perceptions of isolation. Isolation within academia where conformity is the expectation, rather than embracing differences can be very negative influences on satisfaction.[31] A culture that accepts and celebrates differences can be most welcoming to URiM recruits.

Perhaps the most important aspect of retention is assuring mentorship. Mentorship has been shown to be one of the most effective tools in retention.[31] Absence of or inadequate formal mentoring disproportionately affects women and faculty of color (JC 1992, Sorcinelli MD 2007). Mentoring practices that can enhance URiM faculty retention include one-on-one mentoring and group-based skill-building programs within institutions and through national organizations. Mentors can help junior URiM faculty define career goals, enhance productivity, and obtain access pilot grants and other funding sources.[33] Because there is an overall lack of URiM mentors, environments without mentors should endeavor to utilize mentors from other departments or even other institutions. Mentors do not necessarily need to be the same race, sexual orientation, or gender identity of the learner or junior faculty, but they need to understand, be invested, and embrace their success and development. Mentors from different cultural backgrounds will never fully understand the barriers URiM faculty face, but they can be instrumental toward their success and endurance at the institution by openness, respect, and a transparent relationship. Adding coaching to traditional mentoring programs may also be beneficial.

Finally, although leaders and mentors are an important component, development of those URiM faculty is everyone's responsibility. Faculty development programs must be engaged, and have sufficient intensity in order to be successful.[34] URiM faculty are more likely to be at junior academic ranks than their majority counterparts.[35] This has been thought to be partly due to the "minority tax" resulting in URiM faculty spending disproportionate time toward institutional diversity efforts, rather than pursuing other academic activities that would contribute to promotion.[30] Junior faculty and learners often do not feel empowered to limit these commitments, or in an attempt to make a difference take on well-intended but not productive assignments. Leadership and mentorship is essential to productively manage time, as are programs that help develop academic potential.

Promoting Diverse Faculty

Multiple studies have addressed a diversity gap in the promotion of faculty in both academic medicine and academic EM. The distribution of U.S Medical School Faculty by Rank and Race/Ethnicity highlights the diminishing proportion of URiM faculty as physicians progress from Instructor to Full Professor.[36] Prior literature has shown that URiM faculty have significantly longer time to promotion when compared to their white counterparts even after adjusting for tenure status, degree, gender, and NIH award status.[37]

Many articles have attempted to research the barriers that prevent URiM faculty from academic promotion.[38] Rodriguez and colleagues. conducted a systematic review examining several studies that investigated the factors that affect minority faculty in academia. The researchers found that lack of mentorship was a leading factor. In addition, the minority tax, or an unequal distribution of responsibilities that may not be beneficial for promotion, including clinical hours and community service, often prevented URiM faculty from dedicating the time needed on categories required for promotion and tenure (i.e., research and publication).[39]

It is of particular importance to aid URiM faculty given the additional barriers they face to promotion and academic productivity, including implicit and explicit bias. Prior literature has reported that racial and ethnic minority faculty and residents experience differential treatment secondary to their race and ethnicity, which has the potential to impact wellness, academic productivity, and turnover within the workplace.[40,41] Researchers have found that dedicated faculty development programs increased representation, retention, productivity, and promotion in URiM faculty.[39] Breech and colleagues found that institutional support and allocation of

resources were key to the sustainability of such mentoring programs for URiM faculty.[33] Several universities have committed tens of millions of dollars to increase the number of URiM faculty.[42-44] These institutions have used this funding to increase the recruitment efforts targeting URiM candidates and to offer URiM candidates attractive faculty development packages that often provide significant protected time from clinical duties to pursue research opportunities and to development a network of mentors.

Key recommendations from the workgroup included departmental transparency regarding the criteria for promotion and consistent mentoring of minority faculty to meet these criteria. Moreover, the workgroup recommends that academic medical centers and EM departments stay committed to minority faculty development programs in order to gain fruitful outcomes.

Challenges and Moving Forward

The proliferation of research on equity in medical education since 2010 has emphasized the need to recognize the importance of inclusion in addition to diversity. The AAMC medicine has recognized this reality through the Diversity 3.0 prism that clearly states that "promoting diversity must be tightly coupled with developing a culture of inclusion, one that fully appreciates the differences of perspective".[45] This was amplified by the AAMC's subsequent work that broadened its lens to examine organizational culture and climate as it relates to populations that have higher rates of health disparities including lesbian, gay, bisexual and transgender communities as well as well as individuals who need accommodation.[46]

A critical component to attaining a culture of inclusion will involve the experience and impact of microaggressions on underrepresented groups. Over a decade ago, Sue and colleagues. described racial microaggressions as brief yet common "verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color".[47] Resident physicians of color have reported commonly experiencing microaggressions in the workplace[48], and the experience of microaggressions has been associated with harmful psychological outcomes including anxiety and depression.[49,50] Moreover, because microaggressions seem benign, they are rarely reported in the workplace.[48] The need for constructive dialogues on race has been proposed to improve racial relations, reduce prejudice and misinformation.[51] Our workgroup supports recommendations from the AAMC Chief Diversity Officer advising that faculty undergo proper

training and development to be prepared to engage in and facilitate conversations on race and racism.[52]

Engaging URiM faculty for stakeholder input and building a network of allies supporting workforce diversity across the academic medical center are essential to foster a culture of inclusion in EM departments. This network should include people in leadership positions in the medical school, the hospital, the office of GME, and the community. Stakeholder input by URiM faculty is key to ensure full URiM participation to guide and shape diversity and inclusion initiatives. This model has been successfully implemented at the Denver Health Emergency residency program which featured support, both philosophical and tangible through significant program funds, from the departmental chair, the residency program director, executives in the Denver Health hospital system, the GME office, and community organizations, such as the National Association of Healthcare Executives.[15] Such a community of diverse allies relieves some of the burden on minority faculty, who often shoulder disproportionate responsibility to promote diversity, and sends a powerful message to minority applicants that diversity is institutionally prioritized.

A final challenge identified by the workgroup is the need for evidence-based strategies and policies to promote a diverse workforce in EM. While the workgroup was able to identify several recruitment strategies, such as the VECs and Second-Look Weekends opportunities, few have undergone rigorous outcomes evaluation. There remains a need to develop and execute a comprehensive research agenda to develop a toolbox of evidence-based practices that can be implemented in residency programs across the country to eliminate the diversity gap in EM.

Next Steps

Although the proportion of URiM physicians in EM has not significantly changed in the last ten years, the recognition of the importance of diversity and inclusion in EM has increased as evidenced by the proliferation of VECs, Second-Look Weekends programs, and the prioritization of diversity and inclusion among the action plans of EM leadership. Moving forward, there remains much work to be done to ensure equity in access to medical education and training in EM. In conclusion, our workgroup offers the following key recommendations:

- Dedicate funds to the recruitment and retention of URiM residents, fellows, and faculty

- Utilize in a holistic review when screening applicants for residency selection
- Participate in pipeline activities to increase the proportion of URiM trainees and faculty.
- Include measures of diversity and equity on department dashboards or score cards
- Link incentives to success in retaining URiM faculty
- Address the climate of inclusion in addition to climate of diversity
- Develop a systematic plan to address departmental disparities in promotion
- Foster a community of allies across your academic medical center to promote diversity and inclusion
- Participate in evidence-based studies to determine impactful ways to advance diversity and inclusion in Emergency Medicine

Building on these recommendations, we can not only improve diversity in EM, but also build a culture of inclusion and equity and improve the delivery of emergency care.

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Table 1. Summary of Key 2008 CORD Recruitment Recommendations

1. Verbally recognize the diversity present in the residency program when URM applicants arrive to interview.
2. Express that the department welcomes and is actively recruiting students from diverse racial and ethnic backgrounds
3. Know the institution's local and community demographics, and address those needs.
4. Broaden selection criteria beyond USMLE scores to include intangibles such as leadership, community service, and other life experiences
5. Develop curricula to address topics on diversity, cultural competence, and implicit bias.
6. Become involved in programs designed to increase the number of URMs entering into the field of medicine.
7. Offer URM interview dinners and social events.
8. Include diversity in recruitment material and institutional Web site.
9. Validate the importance of applicants meeting residents and faculty from underrepresented groups when they come to interview.
10. Commit early to the success of minority applicants recruited into your program
11. Be proactive about providing in-service test preparation if USMLE scores are marginal, and encourage senior and resident faculty mentoring.

CORD = Council of Emergency Medicine Residency Directors; URM = under-represented minority; USMLE = United States Medical Licensing Examination.