

CONCEPTS

Ethics

Diversity pipelines: The rationale to recruit and support minority physicians

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Abstract

Emergency physicians care for patients from all backgrounds with respect and expertise. We aspire to treat everyone equitably and make decisions at the bedside that are not based on age, race, socioeconomic status, gender, sexual orientation, religion, language, or any other category. In many settings, there is a stark contrast between the diversity of our patient populations and that of the physicians caring for them. Despite our intention to minimize the effects of implicit and explicit bias, when the physician workforce does not reflect the patient population, there may be significant assumptions, mistrust, and misunderstandings between people from different backgrounds.

As medical professionals, increasing the diversity of our workforce and support for programs and policies that increase underrepresented minority (URM) physicians in emergency medicine is important. Increasing URM physicians will not only improve the quality of care for our patients, but also the quality of education and training in our profession. It is crucial that we prioritize pipeline programs that recruit and support URM physicians. This article describes the rationale to increase diversity within the profession of emergency medicine and the essential mechanisms to achieve this goal. In the same way that we hold individuals accountable to a clinical standard of care, we should hold our institutions to an organizational standard of diversity.

KEYWORDS

bias, diversity, ethics, minorities, medical education, pipeline programs

1 | THE RATIONALE FOR DIVERSITY

Achieving a more diverse emergency physician population is becoming increasingly important and someday may prove to be essential to improve patient outcomes and the overall health of society. Diversity, defined as having a varied representation of a population, is especially important to emergency medicine where we care for people of every

background. The dearth of diversity in medical and professional settings is gaining recognition and highlights societal problems, revealing the negative effects of implicit bias, cultural mistrust, and poor communication on health equity and outcomes. In the wake of recent social movements driving the recognition of social disparities, Americans are being forced to confront issues of race prejudice and demand systemic change that addresses gross inequalities in the United States.

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As Americans we often take pride in the diversity of our population, and many would posit that this diversity has served as the foundation of strength that has allowed our nation to prosper. As of 2019, the racial breakdown of the US population was 60.1% White, 18.5% Hispanic/Latino, 13.4% Black, 5.9% Asian, 1.3% American Indian or Alaska Native, 0.2% Native Hawaiian or Pacific Islander, and 2.8% mixed race.¹ Although minorities comprise one third of the population, the percentage of underrepresented minorities (URMs) in emergency medicine in 2013 was <10%.² Additionally, the number of URM emergency medicine residents was only 13% in 2017, a lower proportion than in many other specialties, including internal medicine, general surgery, pediatrics, family medicine, and obstetrics and gynecology, which have URM representation ranging from 17%–23%.^{3–4}

Emergency physicians must be sensitive to the unique needs of our diverse patient population, including marginalized groups and patients with little or no other access to care. A large proportion of patients treated nationwide in emergency departments come from groups known to experience health disparities, including low-income individuals, non-citizens, and racial, ethnic, and sexual minorities. Addressing the care of these marginalized populations has been a priority for the federal government since the landmark report of the 1985 Secretary's Task Force on Black and Minority Health.⁵ Federal mandates addressing the continued need for recommendations and policy changes regarding minorities in health care professions were strengthened in the early 2000s with the establishment of the Sullivan Commission on Diversity in the Health Care Workforce, which provided recommendations for increasing minority students' access to educational channels for health care careers.⁶ In 2008, the Academic Assembly of the Council of Emergency Medicine Residency Directors (CORD) published best practice recruitment guidelines to increase URMs in emergency medicine training programs. Recent research shows that programs with higher numbers of URM faculty, defined URM pipeline initiatives, and explicitly expressed interest in applicant diversity are more successful with URM resident recruitment.⁶ However, as of 2016, only 46% of training programs implemented 2 or more of the recommended best practice strategies for URM recruitment.⁴

To better care for our patients, educate our peers, and decrease health disparities we should recognize the obligation to increase the number of URM emergency physicians. Although we have made important strides in the last decade, current efforts have not produced the diversity required to address this duty. The 2017 American College of Emergency Physicians (ACEP) policy statement on workforce diversity states that "hospitals and emergency physicians should work together to promote staffing of hospitals and their emergency departments with qualified individuals of diverse race, ethnicity, sex (including gender, gender identity, sexual orientation, pregnancy, and marital status), nationality, religion, age, ability or disability, or other characteristics that do not otherwise preclude an individual emergency physician from providing equitable, competent patient care."⁷ As the patient population continues to diversify, so too must the emergency department workforce. Diversity has a positive impact on the quality of patient care and standard of medical education. Understanding how increased numbers of URMs affect health care and education are key to helping insti-

tutions to commit to pipeline programs and practices that have effectively increased diversity within our medical schools, departments, and hospitals.

2 | QUALITY OF EDUCATION AND URMS

Diversity is a major learning advantage at all educational stages. Research at the college level demonstrates that diversity contributes to the cognitive and affective development of all students.^{8–11} Longitudinal studies have shown that the positive effects of diversity persist for several years after completing college. In fact, many of these observed benefits were more profound for White students.⁸ Diversity in medical school prepares students to step into their professional role in a diverse society. Increased diversity in health professions training is linked to improved patient satisfaction, better practitioner and patient communication, and better educational training experiences for all students.¹² White medical students in the highest quintile of schools for racial and ethnic diversity self-rated themselves as better prepared to care for minority patients compared to students from schools in the lowest quintile.¹³ The relationship was particularly strong in schools where students perceived a positive climate for interracial interaction. One medical school that matriculates URMs above the national average demonstrated that the academic success of URM students was facilitated by the collaborative environment, the required health care disparities course and student diversity in general.¹⁴

3 | QUALITY OF PATIENT CARE AND URMS

Physician diversity has been linked to improved access and better quality care for underserved populations.^{15,16} It has also been shown that physician diversity can decrease health care inequities and improve outcomes among minority patients.¹⁷ Most minority and non-English-speaking patients in the United States identify a non-White physician as their primary care provider.¹⁵ Physicians who are URM are more likely to practice primary care in minority-concentrated regions, accounting for most of the access network for these underserved patients.^{18,19} Minority patients, when given a choice of physicians, tend to choose one from the same racial background.^{13,20} Some studies find that patient-physician race or ethnicity concordance increases patients' ratings of their physicians.^{13,21} Specifically, Black respondents with Black physicians were more likely than those with non-Black physicians to rate their doctors as excellent.¹³ In medical clinics, race-concordant visits were found to be longer, with patients feeling their physicians were more participatory.²¹ Also, shared primary language is associated with better patient satisfaction and outcomes.^{22–25} Overall, access to care for underserved minorities depends on URM physicians. Proportionate representation in the medical profession for minority physicians is, therefore, a vital step toward equitable access to care for minority patients.

In a recent study, nearly 4000 medical students at 49 schools evaluated their intention to practice in an underserved area and how this

intent changed from year 1 to year 4.²⁶ Students were more likely to express interest in practicing in an underserved area if their medical school made a commitment to diversity, provided a learning orientation toward interracial interactions, required a seminar on minority health, and promoted a larger number of interactions with African American students, faculty, and staff.²⁶ Other factors associated with either maintaining or increasing intention to practice in an underserved area included perceived skills in developing positive relationships with minority patients and hours of training on racial disparities and bias. Two unexpected factors were associated with increased interest in working with minority patients: (1) students' perceptions that their school's interracial climate was tense, and (2) minority students reporting that they experienced microaggressions due to race. These suggest that increased awareness of racial discrimination and tension drive interest in working with underserved and minority patients. Students with negative explicit racial attitudes at matriculation were less likely to practice in an underserved area after graduation. Structural racism, defined as "the institutions, policies, and norms that are deeply embedded in society and perpetuate racial inequality," is a major barrier to health care equity.²⁶ Studies show that there exists a similar degree of implicit bias among medical professionals as among the general public and that implicit bias influences clinical judgment.²⁷ Bias is like a habit: it can be broken.²⁸ Although implicit bias training targeting individual practitioners can be effective, it is likely that the best solution to reducing the prevalence and effects of implicit bias in our health care organizations transcends individual physicians and even patient-physician relationships. It calls for a greater diversity in the workforce itself.

4 | INCREASING DIVERSITY: SUCCESSFUL PIPELINES AND PRACTICES

4.1 | The minority population-education growth gap

Although there has been progress in medicine with regard to increasing the percentage of non-White students in medical schools and residency programs, there remains a significant minority population-education gap in terms of URM learner presence. Landry et al identified this gap in 2012, but population studies suggest the gap is widening.² Minority groups make up more than 30% of the population and are projected to reach 56% by 2060.^{17,29,30} According to the Association of American Medical Colleges (AAMC) data, although 51.7% of medical students in 2018 were identified as female, only 8.6% were categorized as Black. Data from the AAMC website confirm a 16% increase (26% if combinations of race are included) in URMs matriculating into medical school during the past 5 years, but the annual percentage has increased only from 12.5% to 13.7% (17.4% to 20.7% if race combinations are included).³⁰ Even more concerning is the specific minority population-education gap pointed out by Laurencin et al with respect to African American men in medicine.³¹ Similar data from the National Resident Matching Program website reveal that although the absolute numbers of URMs matching into all residency programs has increased

by 16% the annual percentages have increased only from 16.2% (Electronic Residency Application Service [ERAS] 2014) to 17.3% (ERAS 2018).³² The emergency medicine match data show an increase of 11.3% URMs matching into emergency medicine during this 5-year period but this annual percentage has increased only from 16.2% to 16.7%.³² Of faculty listed in US medical schools by the AAMC only 3.6% were listed as African American and 7.0% were defined consistent with the URM definition (African American + Hispanic + American Indian).³⁰ From Academy of Administrators in Academic Emergency Medicine faculty data the percentage of African American academic emergency medicine faculty has changed very little in the past 4 years ranging from 4.1% (2015) to 3.8% (2018).³³ These data suggest that the minority population-education gap will persist and possibly grow. More studies are needed to shed light on the impact of URMs and diversity on medical education in general.

4.2 | Pipeline programs for early learners

In order to close the minority population-education gap, educational and emergency medicine institutions should work to increase numbers of underrepresented minorities.¹⁶ Measuring these outcomes from implemented regimens are important in order to understand not only what works but how to continue positive trends. It has been well documented that student pipeline and internship programs that enhance recruitment of underrepresented minorities can support culturally competent care and facilitate access to care.³⁴ Many URMs are discouraged before they reach the point where they can apply to residency or even medical school. Over the past 5 years, early exposure programs, such as the Tour for Diversity and Mentoring in Medicine (MIM), create "a pipeline" for URMs through exposure to the medical field, mentorship, and networking.^{35,36} These programs are run by current URMs professionals and students to show young learners that URMs have successful medical careers. Their early exposure goal was intended to "educate, inspire, and cultivate" future minority clinicians.³⁵ These goals have yielded real results: MIM states that 127 out of 145 or 86% of medical pathway program applicants were accepted to medical school. Additionally, within a sample of 64 students in their high school program 98% enrolled in college and 58% pursued science, technology, engineering, or mathematics careers in college.³⁶ The Office of Minority Health and Health Equity and Centers for Disease Control and Prevention (CDC) have partnered with medical institutions and colleges to implement similar pipeline or student training programs.^{37,38}

4.3 | Overcoming minority medical school obstacles

In addition to pipeline programs to increase the number of potential URM learners, many studies have demonstrated promising strategies for facilitating their matriculation to medical school and on to residency. These start first with removing progress barriers for URM

TABLE 1 Capers et al strategies for achieving diversity through medical school admissions

1. Craft an admissions mission/vision statement that speaks to diversity enhancement and keep the statement highly visible at all times.	5. Blind interviewers to academic metrics.
2. Make voting anonymous with an audience response system.	6. Have the committee take the implicit association test and review aggregate results.
3. Put together a sizable group of faculty application screeners to minimize the impact of individual biases.	7. Remove photos from files when discussing applicants.
4. Adopt holistic review.	8. Appoint women, minorities, and younger people (groups with less implicit racial bias) to admission committees.

students. Examples of URM barriers include overemphasis on Medical College Admission Test (MCAT) scores and science grade point averages, lack of URM mentorship, and financial concerns.³⁹ Pipeline, enrichment or preprofessional programs have successfully emphasized diversifying health professions education. The most successful diversity pipeline programs have focused on academic enrichment (science and mathematics), admissions preparation, mentoring, financial support, psychosocial support, and professional opportunities. The 2-part paper by Smith et al details several successful programs and their key elements.^{12,40} The second part describes legislation that has had an impact in this area. Capers et al described admissions barriers such as implicit bias by admissions committee members, revealed through the implicit association test.^{41,42} Efforts at Ohio State University resulted in an increase in URM matriculation into medical school from 13% in 2009 to 26% in 2016.⁴³ Capers et al also demonstrated that despite lower average MCAT scores, African American students did not differ in terms of graduating, matching into residencies, selecting primary care, or achieving board certification when compared to predominantly White institutions. Their recommendations for medical school URM recruitment are listed in Table 1.⁴³

Past programs to increase URMs have focused on encouraging recruitment without a mandate to make institutions have specific initiatives. For example, the AAMC wrote a policy, MS-8, to encourage more diversity within their medical schools. In response, undergraduate medical education put in a variety of initiatives or programs, but without a universal standard for these programs, they have seen mixed results and even some increase in health disparities.³⁷ The 2015 AAMC report showed that African American males as medical school matriculants decreased in 2014 compared to 1978.³⁷ The 2015 report led to a change in the AAMC's Liaison Committee on Medical Education IS-16 or Element 3.3 from the previous recommendation of simply "encouraging diversity recruitment" to now requiring it.⁴⁴ More specifically, a medical institution "must have policies and practices to achieve

appropriate diversity among its students, faculty, staff and other members of its academic community" and "must engage in ongoing, systematic, and focused efforts to attract and retain students, faculty, staff, and others from demographically diverse backgrounds."⁴⁴

As with all programs, initiatives aimed at increasing diversity have limitations. Though a more holistic approach to medical school class selection undoubtedly leads to a richer learning environment, one potential concern is that minority students may be more likely to struggle academically.⁴⁵ Underrepresented minority students are more likely to have lower MCAT scores and United States Medical Licensing Examination (USMLE) scores.⁴⁶⁻⁴⁸ Although lower MCAT scores are associated with a lower rate of medical school acceptance and, similarly, lower USMLE scores with residency opportunities, lower standardized test scores do not necessarily correlate with professional performance.⁴⁹ The original affirmative action paper by Keith et al demonstrated a lower rate of board certification for minority graduates; however, a more recent study by Jeffe et al shows this gap is narrowing.^{50,51} In addition, minority graduates were more likely to gravitate toward practices where they are most needed: primary care specialties and federally designated underserved communities.⁵² Capers et al examined medical school graduation and residency match rates among African American medical students who came from Historically Black Colleges and Universities (HBCUs) as compared to those who came from predominantly White undergraduate institutions. Despite lower average MCAT scores in the group from HBCUs, there was no significant difference in the rate of medical school graduation, residency match, or board certification.⁴⁶ Lypson et al used a structured tool to measure the clinical skills of incoming residents at the University of Michigan and found no difference in performance between URM and non-URM residents.⁵³ Overemphasis on standardized test scores and concerns about academic performance of otherwise highly qualified URM students with lower test scores risks perpetuating the "structured," "institutional," or "interpersonal" racism that makes diversity pipeline programs so essential.⁴⁹

4.4 | Graduate education diversity pearls

At the graduate medical education level, resident and faculty recruitment encourages diversity. Similar to the AAMC, the Accreditation Council for Graduate Medical Education also has an institutional diversity requirement for emergency medicine residencies.⁵⁴ Over the past 20 years, the percentage of non-White physicians in emergency medicine residency programs has slowly risen from 23% in 1997 to ~34% in 2016.¹⁶ Emergency departments recruiting physicians have expanded criteria about what adds value to the department from each potential physician or faculty member rather than relying on traditional pedigree, research, or scholarship criteria. Other emergency medicine departments maintain partnerships with local community and outreach programs to help emergency medicine residents understand social determinants of health and also provide opportunities for emergency medicine residents and faculty to mentor in underserved communities.⁵⁵ Additionally, diversity committees within medical

TABLE 2 Highland's emergency medicine residency program's diversity efforts

1. Eliminate United States Medical Licensing Examination score cutoffs.
2. Increase weight of a gestalt score when ranking students.
3. Establish a diversity committee including the department chair.
4. Start a diversity applicant week.
5. Encourage attending and resident buy-in.

schools have been shown to be an effective tool in increasing URM. In order to establish and sustain these successes, emergency departments have formal budgets to create a variety of resources.⁵⁴ Since the implementation of requirements for diversity policies and recruitment, matriculation of URM has started to improve.³⁸

Similarly, successful strategies for increasing the percentage of URM in emergency medicine residency training have also been described. Academic mentoring was emphasized for the importance of recruiting and developing URM as academic emergency medicine faculty members.⁵⁶ Factors associated with higher emergency medicine residency diversity included diversity of emergency medicine faculty, applicants' URM status viewed as important, and engaging in pipeline activities and pertinent extracurricular activities.³⁸ Improved URM recruitment has been shown through implementation of (1) a scholarship-based externship program, (2) a funded second look event, and (3) increased involvement of URM faculty members in the process.³⁸ In addition to efforts and strategies directed at improving the recruitment and pipeline of URM into medical education, another important area of study is the effect of the graduate medical education environment itself on URM. URM residents describe 3 major concerning themes in their residency experience: a barrage of microaggression and bias, requests to serve as race/ethnicity ambassadors, and challenges with professional and personal identity when seen as "other."⁵⁷ The Highland Emergency Medicine Residency Program in Oakland, CA, began a diversification initiative to increase the number of URM residents, which resulted in a 2-fold increase in the number from 12% to 27%.⁵⁸ The initiative focused on strategies outlined in Table 2.⁵⁸ This success of this program is an example of how diversity begets diversity; Highland has become a popular program for high-performing URM.

In summary, past success seems to focus on creating a pipeline with early interventions and continued exposure to medical disciplines, ongoing outreach to the community, establishing diversity committees with department leadership, eliminating score cutoffs for standardized testing, including URM in positions of leadership, and expanding the recruitment targets to include "added values" that each URM can bring to a residency or department. Stopping affirmative action initiatives can threaten these pipeline programs and the ability to produce URM medical practitioners who are more likely to serve in underrepresented communities and work to reduce health disparities.⁴⁰ Medical institutions must establish partnerships with underserved communities, adopt strategies that demonstrate a strong commitment to increase URM such as quotas or "add values" in recruitment, and

TABLE 3 Practical steps to increase diversity of underrepresented minorities (URMs) in medicine

1. Support pipeline programs with early interventions and continued exposure to medical disciplines.
2. Develop mission statements that speak to diversity enhancement and ensure they are highly visible.
3. Create diversity committees that include department leadership.
4. Require medical institutions to implement "must have" policies and practices to achieve appropriate diversity among its students, faculty, and staff.
5. Expand recruitment targets to include "added values" that URM can bring to a training program or department.
6. Eliminate cutoffs for standardized testing scores and consider blinding scores during interviews.
7. Request leadership and staff take the implicit association test and review aggregate results.⁴³
8. Appoint minorities, women, and younger people (groups with less implicit racial bias) to admission and hiring committees and positions of leadership.

have viable funding mechanisms to support these diversity enrichment programs.

4.5 | Next steps

Review of the literature has illuminated the positive impacts of increasing the number of URM in medical education and the physician workforce. Not only do the raw numbers of URM in medical schools, training programs, academic departments, and community practice improve patient care, they elevate the standard at which physicians are trained and learn to better the practice of medicine. That said, there is an ethical obligation to support and improve programs, regulations, and philosophies that increase the number of URM in the educational pipeline and the workforce. This obligation is an especially important goal to the practice of emergency medicine, where we routinely care for diverse patient populations and marginalized groups. Practical steps to achieve this goal include the following outlined in Table 3.

5 | CONCLUSION

Given the emphasis on providing better health care to underserved populations, ethical applications of increasing the percentage of URM learners in medical education are easy to extrapolate. At least 2 of the 4 general bioethical principles from Beauchamp and Childress can be applied.⁵⁹ Beneficence, or the positive duty of physicians to act for the benefit and welfare of their patients, is relevant in that the medical education learning environment can be seen as an important milieu to motivate and better prepare learners to communicate and improve health care among underserved populations and in all patient groups. In the literature surrounding the critical need for increasing

URMs in medical education and thus increasing the URM physician workforce, justice is commonly mentioned. Increasing the presence of URMs in medical education has been associated with the desire to provide better and equitable care to underserved patient populations and exemplifies the principle of justice in its most essential form.

Diversity is widely understood as an organizational virtue.^{60,61} An organization, like an individual, learns virtues through habit.^{61,62} Although physicians might benefit from finite implicit bias training programs and succeed in translating what they learn about their own limitations and misperceptions into more enlightened patient care interactions, they are more likely to derive lasting benefit from daily exposure to diverse colleagues who shape their habits in unanticipated ways. The end of medicine is the good of the patient.^{59,62} To achieve this end, we need to understand who our patients are and build our individual and institutional habits to serve them. A diverse workforce not only provides the organization with the necessary perspective to accurately understand and communicate with patients, it strengthens the organization's identity as one that builds virtue.^{60,61} When medical professionals see virtues like diversity, transparency, and caring embodied in the organization, they are more likely to be stewards and ambassadors of the mission: the service of the patient.

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CONFLICT OF INTEREST

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