

Diversity in Medical Schools A Much-Needed New Beginning

Valerie Montgomery Rice, MD Morehouse School of

Morehouse School o Medicine, Atlanta, Georgia.



Editorial page 31

The disproportionate effect of the novel coronavirus on African Americans and communities of color has shone a new light on the more than century-old struggle to increase the number of Black physicians in the US. Today, according to the Association of American Medical Colleges (AAMC), Black physicians account for 5% of all physicians even though African Americans comprise 13% of the US population. Only 1626 (7.4%) of the 21 863 students who entered medical school in 2019 were Black, roughly the same ratio as the last 15 years.¹

The US has failed to adequately increase the number of Black physicians since the turn of the 20th century, when 10 medical schools in the country were training Black physicians. As a result of the Flexner Report of 1910, many medical schools at that time were shut down, including all of the Black medical schools except for 2, Howard University College of Medicine, the only historically Black undergraduate college and university (HBCU) with a medical school, and Meharry Medical College. These schools, along with the Charles R. Drew University of Medicine and Science, founded in 1966, and Morehouse School of Medicine, founded in 1975, comprise the country's only historically Black medical schools.

...[N]ow is the time for all medical schools to work earnestly to bring true racial parity to the medical profession, and by doing so, improve the health of the nation.

The Flexner Report asserted that the Black medical schools, as well as many others, operating at the time of his evaluation had inferior facilities, access to limited funding, and were "in no position to make any contribution of value." The report prescribed a limited role for Black physicians in their practices and hinted that Black physicians possessed less potential and ability than White physicians. This bigotry of low expectations set a trajectory for Black medical schools, and ultimately the recruitment, education, and retention of Black physicians, from which medical education has yet to recover.

A recent study estimated that 27 773 Black medical school graduates could have entered the workforce between the time the traditional Black medical schools closed and 2019, if those schools produced physicians at the same rate as Howard and Meharry. The nation's 4 historically Black medical schools have graduated more Black physicians over the last 10 years than the top 10 predominantly White medical schools combined. Three

of the 4 historically Black medical schools enroll an average of 100 medical students per year, of whom more than 70% are of African descent, and Charles Drew enrolls 24 students per year, of whom approximately 50% are of African descent.

Many of the 14 new medical schools accredited by the Liaison Committee on Medical Education over the past 5 years highlight diversity as a part of their mission statement.³ A review of the 2019 total enrollment for those 14 medical schools reveals that they enrolled 3000 students. Only 231 (8%) of those students were Black. The total Black enrollment in US medical schools was 7.3% of the total enrollment in 2019 (6783 of 92 758).⁴ This percentage has remained virtually unchanged since 2013.

One of the barriers for underrepresented minorities entering medical schools is the Medical College Admission Test (MCAT). While many predominantly White medical schools report using a holistic admissions process, the MCAT remains an important, if not the determining, component of their evaluation criteria. While MCAT performance has had an adverse influence on the number of Black matriculants, the MCAT score has not been shown to significantly predict whether students will successfully progress in their medical education. Ac-

cording to the AAMC, in 2016-2017, more than 90% of students with MCAT scores in the 502-505 range (which represents the 60th-70th percentiles) progressed to year 3 on time, and more than 97% at all score ranges progressed to year 3 within 1 additional year. ⁵ Data from Morehouse School of Medicine consistently demonstrate an ability to shift the curve,

accepting students with MCAT scores that average more than a standard deviation below the national matriculant mean MCAT scores, then shift their performance to be equal to or above the national mean for US Medical Licensing Examination Step 1 scores. ⁶

Since the implementation of the restructured MCAT in 2015, 3659 Black students with MCAT scores ranging from 495 to 505 applied to but were denied acceptance into US medical schools. More medical schools should focus less on their rankings, such as in the US News and World Report, and should more intentionally embrace their stated missions of diversity and inclusion, using MCAT scores as only one determinant in the selection process, and admitting more of these students. This approach could potentially lead to 3000 more Black physicians either practicing or in the training pipeline in the US today.

Many studies have illustrated that an increase in the number of Black physicians is associated with a positive

Corresponding Author: Valerie Montgomery Rice, MD, Morehouse School of Medicine, 720 Westview Dr, Atlanta, GA 30310 (vmrice@ msm.edu).

© 2021 American Medical Association. All rights reserved.

effect on the health of African Americans. A recent study involving 1.8 million hospital births in Florida between 1992 and 2015 found an association between newborn infant and physician racial concordance and reduced mortality for Black newborn infants. ⁸ The mortality rates for Black infants were 0.169 vs 0.318 for those cared for by Black physicians vs White physicians, respectively. The study also found that there was no significant difference between the mortality rates of White newborns who received care from Black physicians or from White physicians. Although US infant mortality rates have declined, Black infants are still more likely to die prematurely than White infants, just one example of historic and continuing health disparities in the African American community.

While myriad cultural, psychological, and medical reasons account for health disparities experienced by people of color, inadequate access to health care is a contributing factor. Whether the bias is real or perceived, the lack of physicians of color contributes to the reluctance among minority groups, particularly Black men, to seek care with a physician. For Black men, this phenomenon is exacerbated by a continued underrepresentation of Black men in medical school. In 2019, only 619 Black men entered medical school compared with 1007 Black women, a ratio of nearly 1 to 2. This demographic disparity is not observed in medical school admissions for any other racial or ethnic group in the US.

To increase the number of Black men in medical school and the number of African American physicians overall, medical schools must recognize and participate in addressing the systemic challenges associated with these goals. These challenges are structural;

they are erected early in the life course and endure for generations. A strong pipeline must be developed, including working alongside undergraduate institutions, particularly HBCUs, to identify and help develop promising potential Black medical students. From 2004 to 2018, there was a 32% reduction in the number of HBCU graduates who enrolled in medical school (from 205 to 139) and a 56% reduction in the number of HBCU graduates who completed medical school (from 354 to 154). In 2002, 3% of all HBCU undergraduate degree recipients applied to medical school, and 35% of those applicants successfully matriculated. If HBCUs had maintained that level of productivity, they could have contributed an additional 2500 Black students to medical school.

The responsibility to diversify the health care workforce cannot solely be a priority for the 4 historically Black medical schools, which as of 2019 educate a total of 1312 medical students, of whom 73% are Black, representing 14% of all Black students enrolled. The diverse experiences and different perspectives that underrepresented minority students bring to the classroom and clinical care advance the pedagogical experience for all students in the learning environment.

The US needs to recognize the tremendous value Black people and indigenous people of color bring to the health care of not only their communities, but all communities. As the US and the world continue to struggle with the global coronavirus disease 2019 pandemic, now is the time for all medical schools to work earnestly to bring true racial parity to the medical profession, and by doing so, improve the health of the nation.

ARTICLE INFORMATION

Conflict of Interest Disclosures: None reported.

REFERENCES

- 1. Association of American Medical Colleges. AAMC Facts: Table A-9: Matriculants to US Medical Schools by Race, Selected Combinations of Race/Ethnicity and Sex, 2017-2018 Through 2020-2021. Published 2020. Accessed December 2, 2020. https://www.aamc.org/system/files/ 2020-10/2020_FACTS_Table_A-9.pdf
- 2. Campbell KM, Corral I, Infante Linares JL, Tumin D. Projected estimates of African American medical graduates of closed historically Black medical schools. *JAMA Netw Open*. 2020;3(8): e2015220. doi:10.1001/jamanetworkopen.2020. 15220
- 3. Liaison Committee on Medical Education. Accredited MD programs in the United States. Updated October 20, 2020. Accessed December 2,

2020. https://lcme.org/directory/accredited-u-s-programs/

- 4. Association of American Medical Colleges.
 AAMC Facts: Table B-5.1: Total Enrollment by US
 Medical School and Race/Ethnicity (Alone),
 2020-2021. Published 2020. Accessed December
 2, 2020. https://www.aamc.org/system/files/
 2020-11/2020_FACTS_Table_B-5.1.pdf
- 5. Association of American Medical Colleges. Using MCAT Data in 2021 Medical Student Selection. Published 2020. Accessed December 2, 2020. https://www.aamc.org/system/files/2020-07/services_mcat_using-mcat-data-in-2021-medical-student-selection-guide_07082020_0.pdf
- **6**. Elks ML, Herbert-Carter J, Smith M, Klement B, Knight BB, Anachebe NF. Shifting the curve: fostering academic success in a diverse student body. *Acad Med.* 2018;93(1):66-70. doi:10.1097/ ACM.0000000000000001783
- **7**. Association of American Medical Colleges. *AAMC Applicant Matriculant Data File as of August*

- 13, 2020. Association of American Medical Colleges; 2020.
- **8**. Greenwood BN, Hardeman RR, Huang L, Sojourner A. Physician-patient racial concordance and disparities in birthing mortality for newborns. *Proc Natl Acad Sci U S A*. 2020;117(35):21194-21200. doi:10.1073/pnas.1913405117
- 9. National Center for Education Statistics. Table 313.20: Fall Enrollment in Degree-Granting Historically Black Colleges and Universities, by Sex of Student and Level and Control of Institution: Selected Years, 1976 Through 2018. Accessed December 2, 2020. https://nces.ed.gov/programs/digest/d18/tables/dt18_313.20.asp
- 10. Association of American Medical Colleges. National AAMC Special Report on the Number of All HBCU Graduates Who Applied, Matriculated, and Graduated From US Medical Schools [1988-2017]. Association of American Medical Colleges; 2018.