

# Increasing the Number of Black Otolaryngologists



Erin K. O'Brien, MD\*, Dontre' M. Douse, MD, Semirra L. Bayan, MD, Janalee K. Stokken, MD, Kathryn M. Van Abel, MD

## KEYWORDS

• Black • Bias • Diversity • Medical student • Residency

## KEY POINTS

- Otolaryngology has one of the lowest percentages of Black physicians of any surgical specialty at 0.8%. The number of Black residents in otolaryngology has not increased in recent years, despite an emphasis on the need for increased diversity in the field.
- Metrics used for selection for otolaryngology residency positions, such as step 1 scores, clerkship grades, Alpha Omega Alpha membership, and number of publications, show evidence of racial bias and inequality and do not reliably predict successful residents. Overreliance on these criteria for interviews and rankings may disproportionately exclude Black medical students from matching into otolaryngology.
- In order to intentionally increase the number of Black physicians in the specialty, one must take active steps to recruit and mentor Black medical students through outreach in the first and second year of medical school, mentoring, and funded research and clinical opportunities.
- The number of Black trainees in otolaryngology has not increased in the last 13 years since the creation of the diversity committee of the American Academy of Otolaryngology–Head and Neck Surgery and the 5 years since the creation of the Society of University Otolaryngologists diversity committee.
- Residency interview selection should include a more holistic review of medical students' applications, implicit bias training for residency selection committee members, and intentional reviews of Black medical students' applications to identify candidates with qualifications that align with the department's goals, including the goal of increased diversity.

## INTRODUCTION

Black Americans make up 13% of the population but only 5% of practicing physicians in the United States. The percentage of Black otolaryngologists is even lower, one of the lowest of any surgical specialty at 0.8%.<sup>1</sup> Although the percentage of Black matriculants into US medical schools has been slowly increasing (7.1% of all medical students in 2019), the percentage of Black trainees in the field has remained low and stagnant at

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Department of Otolaryngology-Head and Neck Surgery, Mayo Clinic, 200 First Street, Rochester, MN 55905, USA

\* Corresponding author.

E-mail address: [obrien.erin@mayo.edu](mailto:obrien.erin@mayo.edu)

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2.3% of residents in 2017.<sup>2,3</sup> This underrepresentation of the Black community is not only unethical, but has significant impact on quality patient care. Minority patients frequently report being more satisfied with the care they receive from racially concordant physicians, and having a diverse faculty results in improved training outcomes, promotes research that addresses disparity, and is associated with improved recruitment of diverse study populations into clinical trials.<sup>4-9</sup> In order to intentionally shape the future of otolaryngology to include more Black otolaryngologists, active steps must be taken now to improve recruitment, training, retention, and promotion of Black medical students to become otolaryngologists. In this article, the authors review the data on inequities in the grading and promotion of Black medical students that may negatively impact their opportunities to apply for and be accepted into otolaryngology residencies. The authors describe active measures to intentionally increase the number of Black and other underrepresented minority (URM) physicians into otolaryngology.

## HISTORY

Racism and the active exclusion of Black Americans from medicine, surgical training, and otolaryngology grew out of the enslavement of African people more than 400 years ago. Despite the dissolution of slavery on June 19, 1865, systemic racism, race medicine, mass incarceration, poverty, education inequity, and both implicit and explicit bias, or racism, remain active barriers in 2020 to the education and upward mobility of Black Americans. Although this article focuses on access for Black medical students looking to become otolaryngologists, it is recognized that this is an incredibly small effort in what will truly be required to achieve racial parity within the field.

The history of medical training in the United States provides some background on inequities in the training of Black physicians. Born in 1762 and spending most of his life in slavery, James Durham was taught the practice of medicine by his owners and is considered the first African American physician in the United States.<sup>10</sup> In 1813, Dr James McCune Smith earned a medical degree in Glasgow, Scotland (because it was illegal for a Black man in the United States to earn an MD) and became the first practicing Black physician in the United States. Because of the “color line in medicine,” it was not until 1847 that the first African American medical student graduated from a US institution.<sup>11</sup> From this momentous date, medical education of Black physicians, although still segregated, slowly but steadily grew until the publication of the Flexner Report.

Abraham Flexner was an education specialist who traveled to 155 medical schools in an effort to assess the state of medical education in the United States and Canada. He is credited with influencing the underlying structure of medical education in North America today and also with the disproportionately low numbers of Black physicians.<sup>11,12</sup> In his report in 1910 to the Carnegie Foundation, he cited a need for Black physicians, but stated that Black physicians should care only for Black patients. Flexner went on to say that Black physicians should be trained as “sanitarians” in “hygiene rather than surgery.” He conceded that there would not be enough Black physicians to care for Black patients in the segregated system of health care that he described. Flexner’s racist recommendations for improving medical education led to the closure of 5 of the 7 predominantly Black medical schools. The remaining 2 schools were subsequently responsible for training up to three-quarters of Black students until the 1960s when all medical schools were integrated.<sup>12,13</sup> This report had astonishing and lasting effects. The percentage of Black physicians in 1910 was 2.5%.<sup>12</sup> This number decreased, despite population growth, to 2.2% in the 1950s and 1960s.<sup>14</sup> Recent efforts to improve racial parity have result in growth to 5% of the workforce currently, but this lags far behind the US Black population.<sup>12,14</sup>

The lack of diversity in medicine has been associated with racial disparities in health outcomes. Minority patients are more likely to receive lower-quality care and have lower access to health care.<sup>15</sup> Because Black and URM physicians are more likely to care for minority patients in underserved areas with better patient satisfaction and communication, increasing the diversity of medical trainees may help address health disparities in medicine.<sup>8,16,17</sup> In addition, diversity in health care can improve cultural competency of the workforce, improve medical research, and influence health care policy.<sup>18</sup> Although race, as opposed to ancestry, is a social and not a genetic construct, it is associated with health disparities and survival differences for both pediatric and adult patients with otolaryngologic conditions.<sup>19–22</sup> Increasing the number of Black physicians in otolaryngology by increasing the number of Black residents in training programs could lead to a significant improvement in outcomes for Black and other minority patients.

Dr William Harry Barnes became the first practicing Black otolaryngologist after graduating from the University of Pennsylvania Medical School in 1913. Despite his legacy, the percentage of Black physicians in otolaryngology remains one of the lowest of any surgical specialty.<sup>23,24</sup> In a 2015 survey of members by the American Academy of Otolaryngology–Head and Neck Surgery (AAO-HNS), only 0.8% of the approximately 12,000 members identified as Black or African American.<sup>1</sup> Investigators of a study involving a survey of Black otolaryngologists identified only 124 Black physicians in the specialty.<sup>1</sup> As compared with increases in the population in the United States, the representation of Black otolaryngologists in the United States has decreased from 1990 to 2016 with underrepresentation of Black academic otolaryngologists at the assistant, associate, and full-professor level.<sup>25</sup> This low number of practicing and academic Black otolaryngologists is mirrored in the unacceptably low number of Black otolaryngology trainees.

The already low number of Black residents in otolaryngology decreased from 43 or 3.6% of otolaryngology residents in 1996 to 25 or 2.3% Black otolaryngology residents in 2004.<sup>26</sup> A more recent analysis of the number of women and minority applicants and residents in otolaryngology found that both the number of Black applicants and the number of Black residents decreased between 2008 and 2017; in 2017, there were just 37 Black residents, making up 2.3% of the trainee body, despite the growth of otolaryngology trainee positions.<sup>3</sup> A 2013 study found that unlike family medicine, internal medicine, and general surgery, from 1975 to 2010, otolaryngology did not have an increase in the number of Black residents.<sup>27</sup> This finding is in contrast to both women and other URM residents in otolaryngology, which, although still underrepresented, did increase.<sup>27</sup> A survey of program directors in otolaryngology reported in 2018 that more than one-third of respondents had matriculated one or fewer URM physicians into their program in the past 15 years. In this same study, more than half of the programs had one or fewer URM faculty member.<sup>28</sup> Despite increased recognition of the need to address diversity in otolaryngology, as outlined by Dr Steven Sims in an editorial in 2010<sup>29</sup> and in the responses by Academy leaders describing the efforts to address the lack of diversity,<sup>30,31</sup> these sentiments have not been reflected in the number of Black otolaryngology residents. The reasons for this lack of progress are not well delineated and may be related to both the historic disparity in the training of Black medical students and the modern selection process for residency positions in otolaryngology.

Otolaryngology has become incredibly competitive. A survey of medical students found that 80% considered matching into otolaryngology to be “near impossible” or “impossible.”<sup>32</sup> In 2016, applicants to otolaryngology residency had an average United States Medical Licensing Examination (USMLE) step 1 score of 248, with

44.7% in the Alpha Omega Alpha (AOA) Honor Society with an average of 8.4 publications, abstracts, or presentations.<sup>33</sup> This number is significantly higher than most other specialties. The survey of medical students reported that students felt discouraged from applying to otolaryngology if they had a step 1 score less than the average for those applicants who matched from the previous year.<sup>32</sup> These metrics are used frequently as an initial screening filter by programs in an attempt to make the overwhelming number of applicants to their program more reasonable to review.

Traditionally, high emphasis has been placed on these metrics for matching into otolaryngology residency positions; however, there are no strong findings associating step 1 scores, AOA membership, or the number of publications with residency performance. A review by Daly and colleagues<sup>34</sup> found that USMLE scores did not correlate with faculty ranking of otolaryngology resident success and correlated with in-service scores only for the second year of residency. Although AOA membership was associated with faculty assessment in the top one-third of an otolaryngology residency class, in another study, AOA membership was not associated with a multisource assessment of professionalism of internal medicine residents at Mayo Clinic.<sup>34,35</sup> An applicant's number of publications was found to be associated with matching into otolaryngology but not with performance during residency.<sup>36</sup> Furthermore, an examination of publications cited on otolaryngology residency applications found between 9.8% and 23% of applicants misrepresented their contributions or number of publications.<sup>37,38</sup> Finally, up to 90% of program directors reported having at least 1 resident on active probation, despite these incredibly high scores and honors.<sup>39</sup>

Beyond being poor predictive metrics for performance in residency, there is evidence that step 1 and clerkship scores, AOA membership, the expectation of having a high number of publications, and summative Medical Student Performance Evaluations (MSPE) show bias against Black medical students. An examination of USMLE scores in 1994 identified both gender and racial differences in step 1 scores with lower scores for women and lower pass rates for Black students.<sup>40</sup> Further examination of step 1 scores in a 2019 paper found that Black students scored on average 16 points lower on all step examinations compared with white students, although when factoring in other covariates, such as undergraduate grades and MCAT scores, the difference was reduced to 4 to 5 points.<sup>41</sup> An examination of applicants to internal medicine residency found that step 1 cutoff scores would disproportionately exclude Black medical students from interview offers.<sup>42</sup>

Medical school clerkship grades, often based on some combination of subjective assessments and examinations, also demonstrate racial disparities. In the study of medical student residency applications from 2014 to 2016, the investigators found lower clerkship scores for Black students, findings similar to a 2007 study that also reported lower clerkship scores for Black students in all clinical rotations.<sup>43,44</sup> In another review of clerkship grades, URM medical students received lower clerkship director ratings than non-underrepresented students; although the difference was relatively small, the lower ratings resulted in minority students receiving half as many honors grades and being 3 times less likely to be inducted into an honors society.<sup>45</sup> The subjective nature of this grading system raises concerns about implicit bias or racism.

The AOA Honor Medical Society uses students' formal academic records to identify the upper quartile of a medical school class for eligibility for AOA. The weight of the metrics of criteria for selection into AOA, such as academics and leadership, is decided by each medical school's chapter, and nominees are voted on by active chapter members each year, with a majority vote required for selection.<sup>46</sup> In a study reviewing medical student applications to residency from 2014 to 2016, only 2.2% of AOA members identified as Black.<sup>44</sup> White students were found to be 6 times more likely to be selected for AOA

membership than Black students, which could affect not only residency applications but also future career opportunities in academic medicine.<sup>47</sup> The evidence of bias in AOA selection has resulted in several medical schools, including Icahn School of Medicine at Mount Sinai in New York, abandoning AOA altogether.<sup>48</sup>

Recently, the number of presentations, abstracts, or publications has increased to an average of 8.4 per successful otolaryngology applicant.<sup>33</sup> In fact, it is increasingly becoming the norm that medical students striving toward an otolaryngology residency position take a year or more to accomplish research in the hopes of improving their competitiveness.<sup>33</sup> There is little evidence that research productivity as a medical student is associated with success as a resident, and much evidence to the contrary.<sup>36,49–51</sup> In addition, most of the 1-year research positions offered at academic centers do not offer funding to trainees seeking to engage in research for the year. The lack of funding to cover living expenses for students discriminates against applicants who are unable financially to support themselves in an unpaid position for that period of time. Although there are some scholarships available, these are few and far between, leaving Black applicants with yet another barrier between themselves and a successful application to otolaryngology.

Finally, an examination of words to describe medical students in the summative MSPE found significant differences by race, with white students described more often by “standout” or “ability” keywords and Black students more often described as “competent”; the competency adjectives however only had a positive connotation 37% of the time for Black students but 57% of the time for white students.<sup>52</sup> The racial differences in step 1 scores, AOA selection, clerkship grades, and even dean’s letter (MSPE) descriptors lead to what these investigators describe as small differences in medical school adding up to an “amplification cascade” of large consequences in the careers of URM physicians (**Table 1**).<sup>45</sup>

Although these barriers to improving diversity within otolaryngology and access for Black residents in the field are daunting, they are not insurmountable. It must first be acknowledged that despite recent efforts to improve diversity, there remains an unacceptable lack of improvement in recruiting and maintaining Black and URM otolaryngology residents.<sup>30</sup> We must then engage in honest and humble discussion, dedicate ourselves as a specialty to educating ourselves about these issues, and commit as a community to making a change. We must identify and implement strategies that actively address recruitment and retention into otolaryngology, no longer relying on Black and URM medical students to break through the nearly impossible barriers set before them to be the change we all need. We propose several intentional steps to actively recruit Black medical students and address biased metrics used in residency interview selection and rankings with the goal of training and retaining Black otolaryngologists.

## DISCUSSION

The “leaky pipeline” involves a loss of URM students and physicians in each step of training and promotion.<sup>53,54</sup> Intentional interventions can increase retention of underrepresented undergraduate and medical students, who may then ultimately go on to a successful career in otolaryngology. Programs to increase the number of Black and URM students in medicine should begin as early as primary and secondary school with access to STEM curriculum, mentorship, and identification of financial opportunities. Current Black otolaryngology residents have cited undergraduate and post-baccalaureate programs focused on URM students as having made a significant impact in their opportunity to attend medical school (personal communication Shannon Fayson, MD, 2020). A program created by surgeons to increase the number of

<b>Table 1</b> <b>Traditionally used metrics that contribute to the “amplification cascade” of barriers for Black and underrepresented minority students to successfully match into otolaryngology–head and neck surgery residency</b>	
<b>Metric</b>	<b>Unfavorable Impact</b>
High mean USMLE step 1 score	Black and URM students disproportionately excluded from interview offers at residency programs with high step 1 cutoffs typically used for otolaryngology–head and neck surgery (oto-HNS)
AOA membership	AOA not offered by all medical schools, and AOA membership significantly skewed based on race, with a disproportionately low number of Black students
Mean number of publications, presentations, and/or abstracts (>8.4)	Disproportionate exclusion of Black and URM students who may not have as many research opportunities at their home institution or may not be have the financial resources to support themselves during an unpaid research internship
Clerkship grade/MSPE	Black students are less likely to receive honors in clinical clerkships Possible exclusion of potential Black or URM residents who may be described as “competent” instead of “standout” secondary to implicit bias associated with word choice

women and URM students applying to procedure-based residencies provides a roadmap for increasing the number of Black trainees in otolaryngology.<sup>55</sup> The authors review the successive steps in the pipeline beginning with medical students. Focusing on educational opportunities at earlier time points, although critical, is outside the scope of this publication.

### **Medical School**

Increasing the number of Black physicians in otolaryngology residencies begins with increasing interest in the field early in medical school and providing both mentorship and research opportunities. The goal is to foster curiosity and interest in otolaryngology while helping each student create a competitive application through meaningful experiences, the creation of a relationship with a mentor, and an increased number of publications. The Nth Dimensions Pipeline Initiatives Curriculum was created by a non-for-profit organization of general surgeons to increase the number of women and URM medical students applying for surgery and other procedure-based residencies.<sup>55</sup> The program focused on 3 steps: (1) increasing initial exposure and hands-on experience such as bioskills and surgical technique workshops; (2) clinical and research experience with shadowing physicians and completing a research project with poster presentation; and (3) mentoring and professional development for second through fourth year of medical school. Initial results from the Nth Dimensions program found increased retention of women and URM students applying for and matching into surgical and procedural residencies (72.3%).<sup>55</sup> Studies in our own specialty have cited the benefit of similar interventions in the choice and success in matching into otolaryngology.

Early exposure may be critical to a Black medical student’s decision to pursue a career in otolaryngology. Black otolaryngologists surveyed about their specialty

choice reported that early exposure to otolaryngology and enjoyment of their otolaryngology rotation were significant factors in applying for residency in the specialty.<sup>1</sup> Otolaryngology faculty and current residents should offer more opportunities for interactions with medical students early in their medical school careers, with hands-on procedural skills workshops and shadowing opportunities. Additional exposure through active engagement by otolaryngology faculty in anatomy courses during the first 2 years of the students' preclinical training should be encouraged. These opportunities should be intentionally offered and encouraged for URM and Black medical students through medical school diversity programs and minority organizations, such as the Student National Medical Association (SNMA) medical school chapter.

Clinical and research experience for URM students has been shown to be effective for matriculation into otolaryngology training programs. To increase the pipeline of URM students applying for otolaryngology residency, Johns Hopkins Department of Otolaryngology–Head and Neck Surgery created the Clerkship Program for Underrepresented Minority Medical Students.<sup>56</sup> Fifteen URM students from 10 medical schools completed a 1-month clinical rotation or a 3-month research clerkship. The students averaged 1.7 publications after completing the program. Six students matched into otolaryngology and 6 students matched into other surgical specialties. Three of the students matched at Johns Hopkins, increasing the number of URM residents in their program.<sup>56</sup> This early evidence-based approach suggests that the creation of a structured program designed to support exposure, mentorship, and research efforts resulted in successful application to surgical specialties, including otolaryngology. Additional resources for both programs and students can be found on the Web site [Headmirror.com](http://Headmirror.com), which includes a diversity and inclusion page with a list of resources for URM students, including grants for summer clinical and research programs from the American Head and Neck Society and individual otolaryngology departments, grants to support travel for clinical rotations from the Society of University Otolaryngologists (SUO), the American Society of Pediatric Otolaryngologists, and the AAO-HNS, and the Harry Barnes, MD Endowment Leadership Grant to support otolaryngology residents of African descent from the United States, Canada, or the Caribbean to attend the AAO-HNS annual meeting.<sup>57</sup> Research and travel opportunities must be funded so that opportunities are not preferentially available for students with economic means. Programs emulating the goals set forth by the Johns Hopkins clerkship program should be considered at institutions across the country.

Mentorship is a critical component to successful career advancement, regardless of the field. However, likely because of the highly competitive nature of matching into otolaryngology, Black otolaryngologists in practice cited mentorship as *less* impactful than exposure and rotations in otolaryngology when choosing their specialty.<sup>1</sup> Despite the low number of Black and URM faculty at academic institutions, which makes identifying race-concordant mentors challenging, an association was seen between being mentored as a student and currently mentoring students and faculty, including mentoring at other institutions.<sup>1</sup> In addition, because faculty mentors may be less visible and ultimately spend less time with medical student trainees, residents may have a stronger influence as role models than faculty.<sup>58,59</sup> Although race-discordant mentorships should not be discredited, programs offering mentorship from faculty with diverse backgrounds are critical to the comfort, feelings of belonging, and support for URM students and residents.<sup>28,60</sup> In fact, it appears that both female and nonwhite applicants may actually cancel interviews at institutions because of a lack of women and diverse residents and faculty.<sup>58</sup>

Mentorship does not always require face-to-face interaction, which may allow for dedicated mentors to reach students that have few other mentorship opportunities.

For medical schools without otolaryngology programs and institutions with a high number of minority students such as medical schools affiliated with historically Black colleges and universities (HBCU), otolaryngologists can provide virtual or distance mentoring. The SUO Web site provides a list of diversity champions in academic programs for URM students interested in research opportunities, mentorship, and clinical rotations. Regardless of the race, gender, role, or physical location of a mentor, a successful mentorship requires that the mentor be invested in the mentee. Mentors should be prepared to meet regularly with their mentee to map out a strategy for successful application to otolaryngology, read and revise personal statements, host mock interviews for students, write strong letters of recommendation, and make personal telephone calls on behalf of their mentee.

Efforts to address racial inequity require active steps to address past racism and exclusion with nonblinded programs for Black and URM students. These efforts need to be funded so that mentors and preceptors are financially supported for their academic time and students receive financial resources for travel, work, and housing. In addition, mentorship should not fall primarily onto the shoulders of URM faculty; this role should be shared by all academic otolaryngologists and even by nonacademic otolaryngologists in practice. Because the number of Black trainees in otolaryngology has not increased in the last 13 years since the creation of the diversity committee of the AAO-HNS and the 5 years since the creation of the SUO diversity committee, more must be done to increase the number of Black medical students applying for and being accepted into otolaryngology residencies.

### ***Application to Residency***

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In addition to increasing the number of Black medical students with an interest in otolaryngology and support for their applications with mentorship, clinical rotations, and research opportunities, we must examine how student applications are reviewed and how interviews are conducted to increase the number of accepted Black residents. Given the racial differences in clerkship scores, the MSPE or dean's letter, AOA membership and step 1 scores, the criteria for review of applications must be evaluated to decrease racial biases. Although Bowe and colleagues<sup>61</sup> found that, on average, medical students who matched into otolaryngology programs had above average board scores, publications, and AOA membership, these very selective metrics were not found to be associated with higher success in residency. The investigators proposed that qualifying criteria, such as minimum step 1 scores of 220 to 230, 3 publications, and top one-third of their class, be used to screen applicants for otolaryngology residency with more focus on holistic qualities in ranking applicants for interview offers. Recently, the USMLE announced that the step 1 score will be reported as pass/fail rather than a numeric 3-digit score, a change that some feel may help increase diversity, especially in the "the most competitive, and simultaneously least diverse, medical specialties."<sup>62</sup>

Individual programs may identify specific areas of scholarship or skills that align best with the goals of their department, such as basic science or clinical research, education, or innovation; identifying students with similar interests or experiences may identify appropriate candidates for interviews more than specific scholarship metrics like grades or scores. For departments looking to increase their own minority recruitment, the knowledge and experiences of their own residents can help improve their institutional efforts. In addition, the leadership and volunteer efforts of minority medical students often through diversity council or admissions committee positions, leadership positions in SNMA, community service, and minority student mentoring and recruitment, which require significant time commitments beyond medical school



course work and rotations, speak to their ability to balance their time, efforts, and energy beyond school. Residency application review committees should discuss the value they place on extracurricular and leadership experience as they review medical students. Committees should consider the ability to overcome adversity, crisis management, and demonstration of grit and professional will, all of which have been identified as clear differentiators of success for Black medical students and physicians.<sup>1</sup> In addition, committees should consider “unblinded” application reviews of URM applicants in order to provide additional or secondary reviews of candidates who might not meet the most stringent academic criteria for interview selection or may have been given lower ranking for interview selections because of unconscious biases.

The review committees should participate in training on an unconscious bias as well as learning the history of racial inequity in medical education and racial differences in traditional metrics for assessing scholarship. The selection and interview committee itself should be diverse, allowing a variety of inputs and viewpoints and backgrounds. When reviewing applications, program directors and administrators can “turn off” the photographs on the Electronic Residency Application Service applications by marking photographs as nonviewable while committee members review the applications to try to decrease the potential for bias. A study on the role of physical attributes and race or ethnicity in application photographs in addition to academic metrics in selection for radiology resident interviews found that facial attractiveness more strongly predicted reviewer ratings than AOA membership or clerkship grades; race or ethnicity was less influential but still a significant predictor of reviewer ratings.<sup>63</sup> A follow-up study found that reviewers with more self-awareness of the potential for implicit bias were able to mitigate this risk as they reviewed applications and could compensate for potential biases, supporting the role of implicit bias testing and training.<sup>64</sup> Implicit bias testing and education were associated with 1 medical school’s admission committee members reporting more consciousness of their own potential biases as they interviewed candidates; in the year following the implicit bias exercise, that medical school matriculated the most diverse class in the school’s history, further supporting the value of this training.<sup>65</sup>

### **Interviews**

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Once applicants are selected for interviews, the program schedule and interviews should be structured in a way to reduce potential biases, highlight support for both past and current Black and URM trainees and faculty, and emphasize the value of diversity in the program’s selection process and training program. Programs can provide access for URM candidates to meet with minority residents and faculty and provide information on the academic achievements and careers, such as publications, grants, fellowships, and leadership roles of past URM trainees. Similar strategies for improving recruitment of URM residents have been outlined by other specialties, such as work groups for increasing diversity in emergency medicine.<sup>66</sup>

Interviews should be structured to reduce the potential for biases and identify qualities sought by the program in their trainees. A review of literature on the value of in-person interviews to predict future performance in residency failed to establish a relationship between interview performance and success or problems for trainees during residency. The investigators did recommend that programs avoid traditional, unstructured interviews and offer standardized questions to improve interrater reliability and decrease potential biases by interviewers.<sup>67</sup> A surgical skills assessment during the otolaryngology residency interview was predictive of performance in residency as determined by faculty evaluations.<sup>68</sup> Behavioral questions regarding professionalism, leadership, trainability/suitability for the specialty, and fit for the program were found

<b>Medical School Efforts</b>	<b>Application Review</b>	<b>Interview Strategies</b>
<ul style="list-style-type: none"> <li>• Hands-on bioskills oto-HNS workshops for first- and second-year medical students</li> <li>• Mentoring by oto-HNS faculty and residents locally and remotely, especially at HBCUs and schools without oto-HNS programs</li> <li>• Funded research internships</li> <li>• Funded clinical clerkships for visiting students</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum criteria for scholastic metrics for application review</li> <li>• Holistic application review, including weighting leadership, mentoring, and service experience</li> <li>• Faculty training on racial inequities in medical school training and evaluations</li> <li>• Implicit bias training for faculty and residents</li> </ul>	<ul style="list-style-type: none"> <li>• Highlight support for Black and URM trainees and faculty</li> <li>• Provide opportunities to speak with current and past Black and URM trainees</li> <li>• Structured interview questions with MMI format to reduce potential for bias</li> <li>• Funded "second-look" weekends for Black and URM candidates</li> </ul>

to provide information on leadership and attrition in obstetrics and gynecology residency interviews.<sup>69</sup> Multiple mini interviews (MMI) include stations with a behavioral descriptor or situational judgment-type question addressing a specific core competency; these MMI style interviews have been found to have correlation with future clinical examination testing and may correlate with specialty success.<sup>67</sup> In addition, the use of the MMI format during medical school interviews was found to result in a higher acceptance of diverse racial and ethnic candidates, whereas reliance on numbers and letters about the candidates had the potential to decrease URM applicants' acceptance.<sup>70</sup>

To indicate their commitment to recruiting and supporting Black trainees, some programs have used second-look weekends with opportunities for candidates to meet additional department members, trainees in other departments, Black faculty, and community members. Financial support for these second-look weekends further signals a commitment to increasing diversity and supporting trainees. Although there is no literature to show a significant correlation between participation in second-look trips and successful a match, candidates have indicated that they find these opportunities helpful in making decisions regarding their rankings of programs. Developing relationships between the department and institutional or community organizations that support diversity and minority citizens can also provide valuable connections in the recruitment of candidates who are considering moving themselves and potentially their families to these communities where they will be training.

## SUMMARY

Given the lack of improvement in the disparity between the percentage of Black citizens in the United States, Black physicians in the United States, and Black physicians within otolaryngology, intentional steps must be taken to address factors that affect the opportunity to train in otolaryngology for Black medical students (Table 2). By understanding the disparities in the grading and promotion of Black medical students, historically, and more recently, including board scores, grades, honors, and publications, and how the overemphasis on these metrics in the selection of otolaryngology residents disproportionately excludes Black applicants, medical schools and otolaryngology training programs can be more intentional in recruiting, mentoring,

interviewing, and matching Black otolaryngology residents, ultimately addressing many of the leaks in the pipeline from medical school to becoming a practicing otolaryngologist. These same measures of inclusion may extend to all underrepresented minorities, therefore improving the diversity within the specialty as part of the goal of improving care for all patients.

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## DISCLOSURE

The authors have nothing to disclose.

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