

A Test of Diversity — What USMLE Pass/Fail Scoring Means for Medicine

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202. Years of anticipation, months of preparation, hours of practice testing. All for a score of 202 of a possible 300.

Such laments are common among U.S. medical students who put their personal and academic lives on hold each year while preparing for Step 1 of the U.S. Medical Licensing Examination (USMLE). The stakes are high for all students taking this first Step examination of the three required for medical licensure. But students from racial and ethnic groups that are underrepresented in medicine experience great angst.

Recently, the Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners (NBME) decided to change score reporting from a three-digit numerical score for the Step 1 exam (the mean score for first-time takers was 230 in 2018) to a pass-or-fail outcome.¹ Responses to this drastic change have varied, with some students and medical educators welcoming the news with excitement and others accepting it with trepidation. Although the effect on trainees from underrepresented groups remains uncertain, we believe that the change is a critical step toward diversifying the medical profession — particularly the most competitive, and simultaneously least diverse, medical specialties — opening a world of possibilities for physicians and patients alike.

The odds are stacked against students from underrepresented minority groups starting early in their scholastic journeys.² Beginning in grade school, they may be subject to teachers' racial and ethnic biases that can hinder their achievement. Socioeconomic factors such as neighborhood poverty and parental educational attainment may limit their access to high-quality schools, test-preparation resources, and supportive mentorship, widening the achievement chasm. These structural factors have resulted in a leaky pipeline for medical careers, as many talented potential physicians choose other fields instead. Minority students who do make it to medical school face bias in evaluations and are less likely to receive coveted accolades such as induction into the Alpha Omega Alpha honor society.³ These educational disparities greatly heighten the pressure on students to set themselves apart by excelling on the Step 1 exam.

The medical examination system poses challenges that are especially burdensome to students of color and those with lower socioeconomic status. Step 1, much like the Medical College Admission Test (MCAT), places a financial burden on students that includes the cost of the exam (\$645 in 2020) and the study materials required to prepare for it. The price is high, especially for an exam that was not even designed

for its current role in dictating students' acceptance into their chosen specialty. As with the MCAT, scores on Step 1 are lower among black, Hispanic, Asian-American, and female students than among their white male counterparts.⁴ Although this disparity has multiple causes, historically disadvantageous early education in minority communities probably plays an important role for members of underrepresented minority groups.

Lower Step 1 scores can damage students' confidence at a critical time in their education. Many minority students are already dissatisfied with the learning environment in their medical schools. A hit to their confidence from a low score at the start of their third year can significantly affect their performance at a time when grading is about to become more subjective and pressure to present clinical information to supervisors and peers is heightened. We believe that third year is a time when students should focus on immersion in clinical medicine unhindered by poorer-than-hoped-for performance on a test whose scores have not been shown to correlate with future clinical competence.

Ultimately, a pass/fail Step 1 exam could transform patient care. Despite demographic shifts in U.S. mortality, racial minorities, and especially black men, continue to have the highest

death rates. Though efforts to reduce such disparities must be multifaceted, increasing evidence suggests that expanding physician diversity in all medical specialties can help. Increasing representation means that minority patients will see more doctors who look like them in specialties historically dominated by white physicians.

Given the evidence that patients who see physicians of their own racial or ethnic group are more likely to trust and accept medical recommendations, receive age-related screenings and other preventive care, and receive subspecialty care, the benefits of diversifying the medical workforce are easy to imagine. A diagnosis of localized melanoma might be made in a young black man before it has metastasized to his liver or lung. A middle-aged black woman might opt to have her cholesterol screened, discovering high levels early enough to start her down a path of appropriate preventive measures. A Latina grandmother with severe coronary disease might agree to undergo coronary-artery bypass graft surgery when she would not otherwise have done so. It is therefore critical that medical education, and the health care system overall, take measures to address the racial and ethnic imbalance in our medical workforce, and lowering barriers like the USMLE exam is a good first step.

Despite the likely benefits for patient care, the scoring change will bring some challenges. Residency and fellowship selection committees that rely on Step 1 scores to narrow their candidate pools will find the transition trou-

blesome, especially now that the Accreditation Council for Graduate Medical Education (ACGME) has mandated that GME programs strive to diversify. How can they achieve this goal with less objective information than was available before? The change should be viewed as an opportunity for residency programs to more fully embrace the mission of their academic institutions, most of which champion diversity and inclusion.

To ensure a productive and smooth transition, program directors and selection committees can take a number of steps, including broadening the pool of application reviewers, a task that typically falls to a handful of faculty members; recruiting diverse interviewers and selection-committee members; implementing annual, formal training in holistic review and implicit-bias mitigation for all faculty; and prioritizing candidates' ability to enhance the program's cultural competency and diversity. Indeed, we know that racial and ethnic diversity in undergraduate and graduate medical education improves the ability of all students and residents to meet the needs of an increasingly diverse patient population.⁵

We appreciate that there may be unintended consequences associated with any change, particularly one as bold as this. Potential problems include further inflation in residency applications and a likely increase in the attention admissions committees pay to scores on the USMLE Step 2 Clinical Knowledge exam. Groups such as international medical graduates and physicians with doctor of osteopathic medicine degrees will no longer be able to

use high Step 1 scores to gain a competitive edge at major U.S. academic medical centers. Furthermore, there will be a greater emphasis on subjective assessments of students' performance in their third- and fourth-year clinical rotations, which may be greatly influenced by the implicit biases of supervising physicians.

Nevertheless, we believe that holistic review will be a tide that raises all ships equitably. Although there is much angst about a pass/fail Step 1, a change was clearly necessary, and we applaud the FSMB, the NBME, and members of the medical education community who encouraged this move. After all, there is little evidence to suggest that Step 1 scores predict clinical outcomes, physician behaviors, or merit of care provided. The change brings great opportunities for innovation in resident selection, centered on the attributes that make for a great physician, and should catalyze major improvements in diversifying our physician workforce.

The three-digit Step 1 score seems likely to be an indication of whether a student had highly educated parents, attended well-resourced schools, had exposure to years of test preparation and summer science programs, and had access to professionals who served as role models and mentors. Standardized exams can be the great equalizers they are purported to be only if everyone has access to the resources required to excel on them. Otherwise, they remain markers of generations of unequal opportunities for underrepresented students. Ultimately, physicians' skill and quality are defined by the care they pro-

vide to patients over the span of a career — a value that no three-digit test score can anticipate.

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