Analysis IN BRIEF

AAMC
Tomorrow's Doctors, Tomorrow's Cures®

Volume 9, Number 8
July 2010

Association of American Medical Colleges

Changes in Medical Students' Intentions to Serve the Underserved: Matriculation to Graduation

The shortage of physicians practicing in underserved areas highlights the need to understand medical students' aspirations to serve the underserved. Past research has shown that having a strong interest in practicing in an underserved area prior to medical school is a significant predictor of actually providing care to underserved populations, even when accounting for sociodemographic and experiential factors.[1,2] Other predictive factors include race and ethnicity, having grown up in an inner-city or rural area, and having participated in the National Health Service Corps. This *Analysis in Brief* examines medical students' intentions to practice in underserved areas, and how these intentions change between matriculation and graduation. Furthermore, because race and ethnicity are factors in the likelihood of a physician practicing in an underserved area, we report medical school students' intentions by race and ethnicity.[3]

Methodology

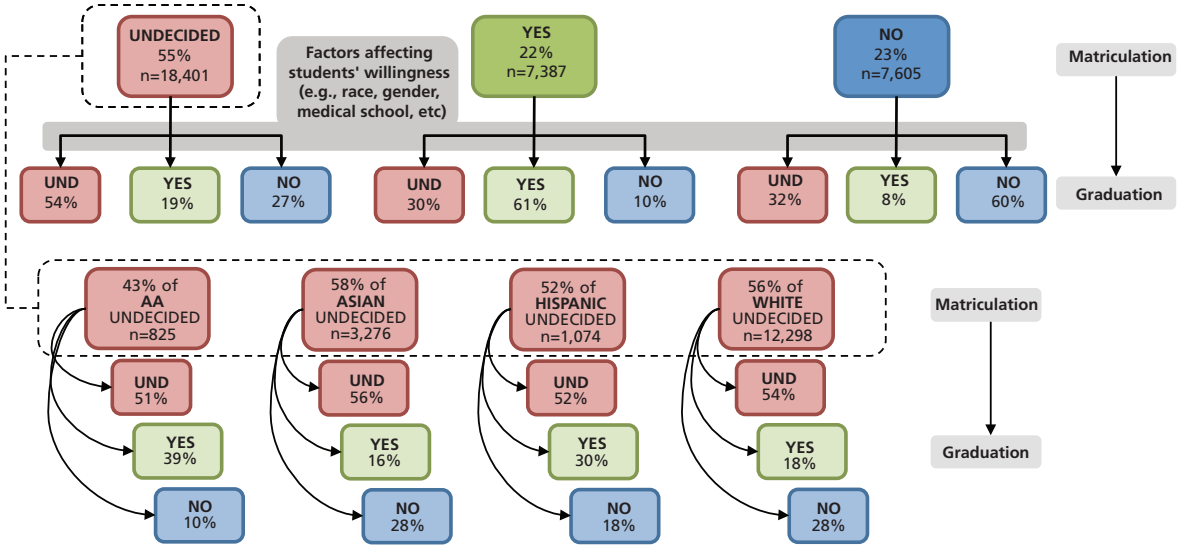
A total of 80,463 students graduated from medical school between 2005 and 2009. From this population, we examine students' intentions as captured by one question on the Matriculating Survey Questionnaire (MSQ) and Graduation Questionnaire (GQ): "Do you plan to locate your practice in an underserved area?" Response categories were "no," "undecided," and "yes." The final sample includes only those graduates who answered the underserved question on both the MSQ and GQ, or approximately 42 percent of the population of graduates.[4]

Results

Two significant patterns emerge regarding a change in medical school graduates' intentions to serve the underserved from matriculation to graduation. First, the students' intent diminishes by graduation, which is demonstrated by a greater number of "undecided" matriculants eventually switching to "no" than to "yes" at the time of graduation. And, second, the direction of change in intentions differs among the major race and ethnic groups.

The top of Figure 1 shows the students' responses at matriculation as well as the percentages changing or retaining their responses at graduation. Most

Figure 1: Medical Students' Willingness to Serve the Underserved: Direction of Aspirational Change from Matriculation To Graduation



Note: "AA" refers to African American. The sum of "UND," "YES," and "NO" may not sum to 100% due to rounding.

[1] Ko, M, Edelstein, RA, Heslin, KC, et al. Impact of the University of California, Los Angeles/Charles R. Drew University Medical Education Program on medical students' intentions to practice in underserved areas. Academic Medicine 2005;80(9):803-808.

[2] Rabinowitz, HM, Diamond, JJ, Veloski, JJ, and Gayle, JA. The impact of multiple predictors on generalist physicians' care of underserved populations. American Journal of Public Health 2000;90(8):1225-1228.

[3] Komaromy, M, Grumbach, K, Drake, et al. The role of black and Hispanic physicians in providing health care for the underserved. New England Journal of Medicine 1996;334:1305-1310.

[4] A weighting procedure showed minimal non-response bias and that our sample allows for very accurate inferences about our target population: all medical school graduates. We therefore present unweighted results. Supplemental data is available at: www.aamc.org/aib.supplement.org.

graduates did not change their intentions. However, graduates who were undecided at matriculation were 1.4 times more likely to switch to "no" than to "yes" by graduation, as is evident by a larger difference in the percentage of respondents who answered "no" versus "yes" at graduation (31% versus 26%)[5] compared with that at matriculation (23% versus 22%).

Our analysis shows differences in students' intentions to serve the underserved by race and ethnic group at both matriculation and graduation. The bottom of Figure 1 shows the graduates who were undecided at matriculation. African-American and Hispanic/Latino graduates who were undecided at matriculation were more likely to switch to "yes" than to "no" (39% versus 10% for African-Americans, and 30% versus 18% for Hispanics/Latinos) compared with Asian and white graduates (16% versus 28% for Asians, and 18% versus 28% for whites).

The data also show that 75 percent of African-American and 70 percent of Hispanic/Latino students maintained their intention to serve the underserved from the beginning to the end of medical school, compared with 53 percent of Asian students and 58 percent of white students.[6] By the time of graduation, 56 percent of African American and 42 percent of Hispanic/Latino students were willing to serve the underserved compared with 21 percent of Asian and 23 percent of white students.[7] Compared with white graduates, AfricanAmerican graduates were 11 times more likely to respond "yes" than "no" and 3 times more likely to respond "yes" than "undecided" at graduation. Hispanic/Latino graduates were 3.4 times more likely to respond "yes" than "no" at graduation and 2 times more likely to respond "yes" than "undecided" at graduation.[8]

Conclusions

When entering medical school, more than half of matriculants were undecided about serving the underserved. Results show that at the time of graduation these students' intentions to serve the underserved decreased, and the direction of aspirational change from matriculation and graduation differs among the major race and ethnic groups. Compared with Asian and white graduates, African-American and Hispanic/Latino graduates' intent to serve the underserved was greater, and these students were more likely to have *acquired* an intention to serve between matriculation and graduation. We stress, however, that factors other than race and ethnicity, such as socioeconomic background, sex, age, student debt, and educational experiences, may be associated with students' intention to serve underserved populations as well as students' aspirational change from matriculation to graduation. Further studies should examine the extent to which aspirations actually predict whether an individual serves the underserved after medical training.

Authors:
Douglas Grbic, Ph.D., Senior Research Analyst, Student and Applicant Studies, dgrbic@aamc.org

Franc Slapar, M.A., Research Analyst, Student and Applicant Studies, fslapar@aamc.org

Acknowledgement:
We thank Gwen E. Garrison, Ph.D., for comments and suggestions.

[5] See supplemental data for more detail (www.aamc.org/aib.supplement.org).

[6] See Figure C1 of supplemental data.

[7] See Tables C2-C5 of supplemental data.

[8] See Section C, paragraph 1 of supplemental data.

Association of American Medical Colleges
2450 N Street, N.W.
Washington, D.C. 20037-1127
analysis@aamc.org www.aamc.org/data/aib