

Growth in Medical School Enrollment and Related Clerkship Sites Availability

This *Analysis in Brief (AIB)* presents some of the latest findings on projected first-year enrollment at U.S. medical schools and discusses the growing concerns around clerkship opportunities.

In 2006, responding to an anticipated physician shortage, the AAMC called for a 30% increase in medical school enrollment by 2015–2016.¹ This corresponds to an increase of 4,946 first-year students over 2002–2003 levels. Understanding enrollment and progress toward the goal of increasing the overall supply of physicians is important, and the AAMC annually administers a survey of medical school enrollment plans to monitor these trends.

Increasing medical school enrollment is a first step in addressing the physician shortage, but related factors exist. As such, in addition to tracking trends in medical school enrollment, the survey addresses other key areas of concern in the medical education community such as the availability of graduate medical education opportunities and competition with other MD-granting schools, DO-granting schools, and nurse practitioner and physician assistant programs for clinical training sites.

Methods

The 2017 AAMC Survey of Medical School Enrollment Plans was administered to the deans of the 149 U.S. medical schools that had full, provisional, or preliminary LCME accreditation in November 2017. Ninety-four percent of medical schools responded to the web-based survey. Survey respondents were asked for the current number of first-year matriculants at

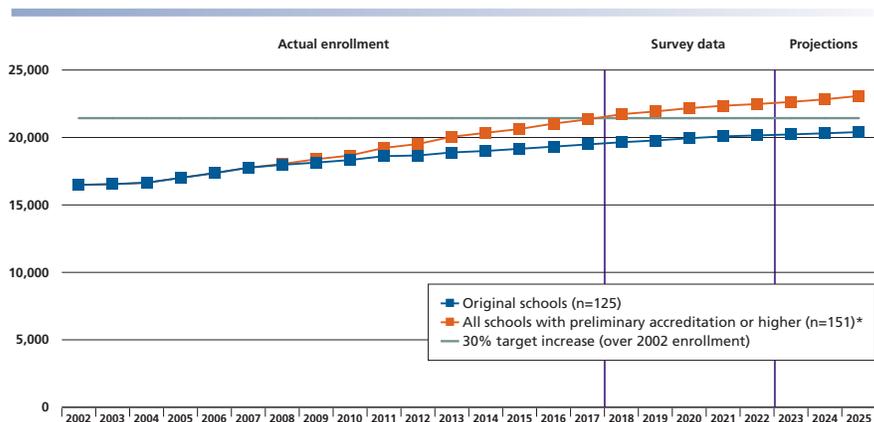
their medical schools for the 2017–2018 academic year and the expected number of first-year matriculants for the next five years, ending with the 2022–2023 academic year. For schools that did not provide enrollment plans on the 2017 survey, the responses from the 2016 survey were used or the official AAMC matriculant data for the 2017 academic year were substituted for each projected year. The projections from 2018–2019 on include two preliminarily accredited schools that did not matriculate students in 2017–2018, for a total of 151 schools with preliminary accreditation or higher. To project enrollment beyond 2022–2023, we applied the rate of growth reported between the last two academic years of survey data for each school.

In addition to expected enrollment, medical school deans were asked about their levels of concern regarding the number of clinical training sites and the supply of qualified preceptors. Participants were also asked about their

experiences with existing clinical training sites. This analysis focuses on reported difficulties with competition with other training programs for clinical training sites and pressure from existing clinical training sites regarding payment(s) for student rotations. This year, respondents who reported difficulties with clinical training sites were asked to rate the level of difficulty they experienced. Respondents were also asked if they pay for any students to have clinical rotations in academic or nonacademic (community-based) training sites.

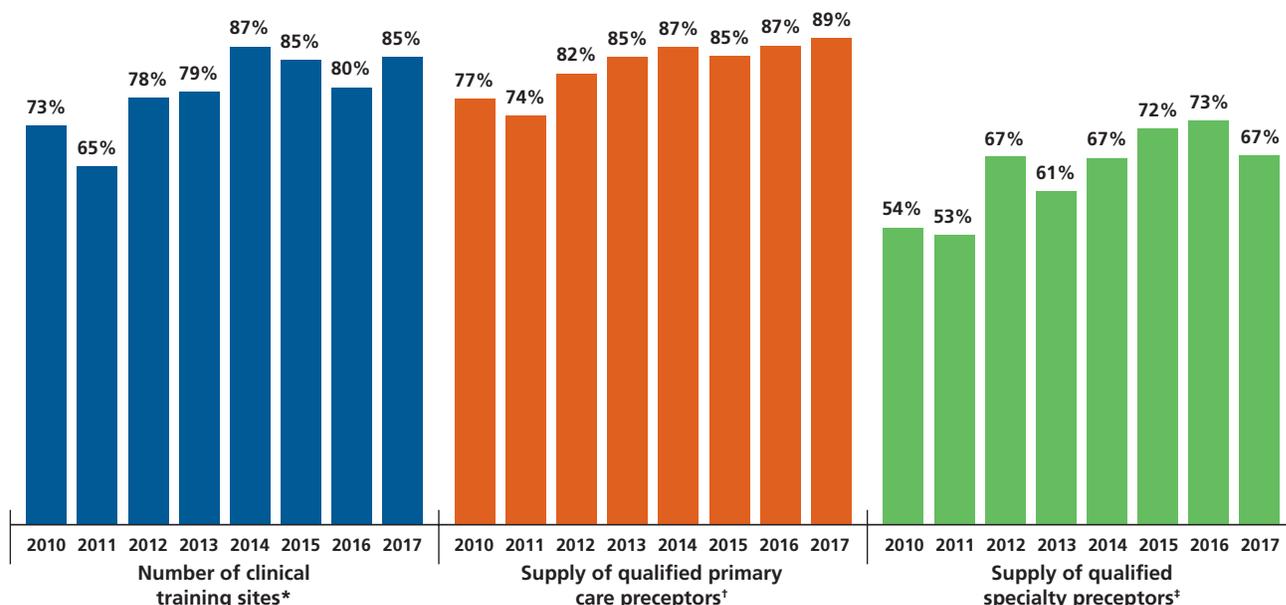
Results

Results show the number of first-year MD medical school matriculants is projected to achieve the goal of a 30% increase over 2002–2003 levels by 2018–2019 and exceed it in future years (Figure 1). By academic year 2022–2023, enrollment is expected to increase by 36% over 2002–2003 levels.



* Includes 147 medical schools that have matriculated students and 4 preliminarily accredited medical schools that have not. These 4 medical schools are included in the enrollment projections displayed after 2017.

Figure 1. Projected first-year enrollment through 2025.



Statistically significant (chi-square test): * $\chi^2 = 29.2, p = 0.0001$; † $\chi^2 = 16.6, p = 0.02$; ‡ $\chi^2 = 24.0, p = 0.001$.

Figure 2. Percentage of schools concerned about clinical training opportunities, 2010–2017.

Results also show that in 2017, 85% of respondents were concerned or very concerned about the number of clinical training sites, which is higher than previous years (Figure 2). There was greater concern about the supply of qualified primary care preceptors than the supply of qualified specialty preceptors. The number of

respondents who reported concern for both types of preceptors has increased over the 2010–2017 time period.

The majority of respondents reported competition for clinical training sites with DO-granting schools and with other health professions, such as physician assistants (PAs) and nurse

practitioners (NPs), and the percentage of respondents reporting difficulties have steadily increased over time (Figure 3). Although reported concern about competition for clinical training sites from offshore medical schools has also risen since 2009, that concern remained fairly steady from 2013 through 2017.

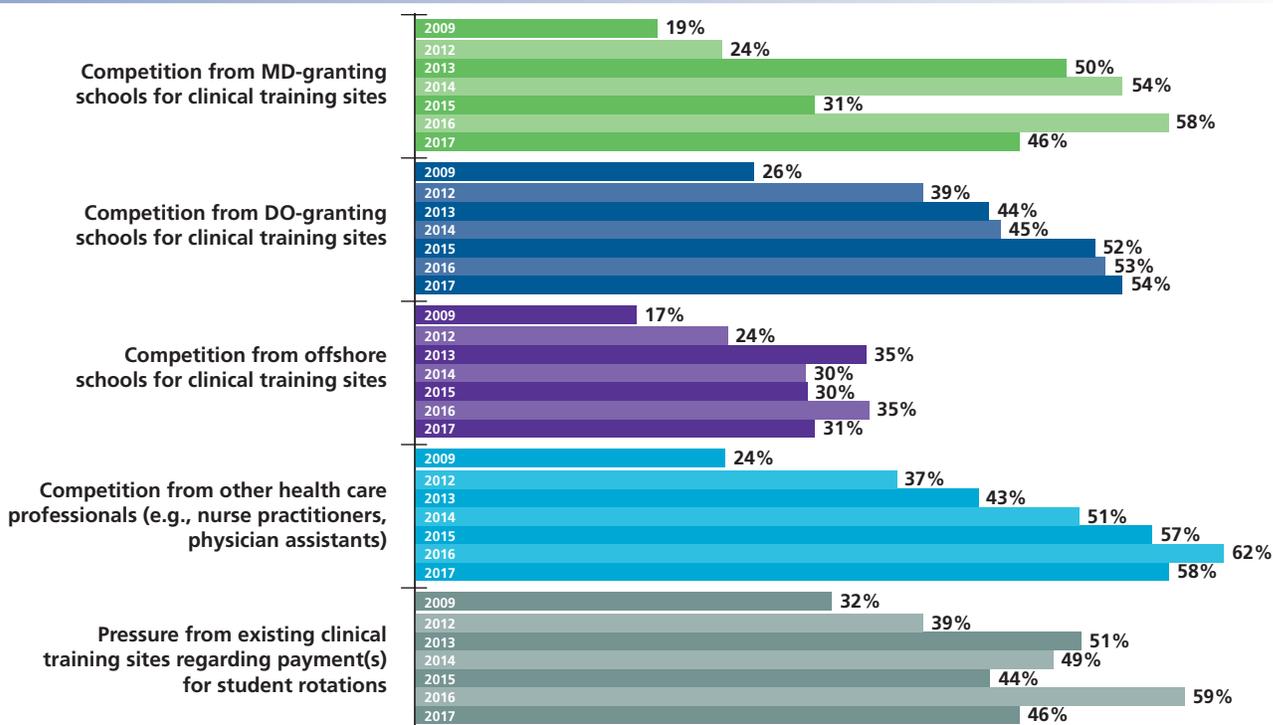


Figure 3. Percentage of schools experiencing difficulties with existing clinical training sites, 2009–2017.

In 2017, 46% of respondents reported pressure from existing clinical training sites regarding payment(s) for student rotations. Of those respondents, 78% reported this as a moderate or major difficulty. At the same time, 41% of respondents reported paying for clinical rotations at academic sites, nonacademic (community-based) sites, or both.

Discussion

As medical school enrollment has increased and is projected to increase further, the demand for clinical training experiences has also increased. This is reflected in MD-granting schools' increased concerns regarding the number of clinical training sites and the supply of qualified preceptors. Similar to a 2013 interdisciplinary survey of health care professions clerkships,² there was greater concern with the supply of primary care preceptors than with the supply of specialty preceptors.

MD-granting schools also reported more difficulties with competition from DO-granting schools and other

health care professions (e.g., NPs, PAs) for clinical training sites. This is unsurprising given the enrollment increases at DO-granting institutions, advanced practice nursing programs, and PA programs. While the number of MD-granting school matriculants has grown by 29% from 2002–2003 to 2017–2018, the number of DO-granting school matriculants has grown by 163%.³ From 2002–2003 to 2016–2017, the total enrollment in master's and doctoral nursing programs increased 292% and the doctor of nursing practice was established.^{4,5} For PAs, first-year enrollment grew 154% from 2002–2003 to 2015–2016.^{6,7} Given these dramatic increases in enrollment across health professions, difficulties with competition for clinical training sites will likely persist.

Similarly, as these enrollment numbers increased, MD-granting schools disclosed pressure from existing clinical training sites regarding payment(s) for student rotations—46% of respondents reported pressure in 2017. At the same time, 41% of MD-granting schools reported paying

for their students to have clinical rotations in academic, nonacademic (community-based), or both types of clinical training sites in 2017.

Overall, survey results around clinical training show similar trends to the 2013 Multi-Discipline Clerkship/Clinical Training Site Survey.¹ MD-granting institutions are increasingly concerned with the number of clinical training sites and the supply of qualified preceptors. They are reporting more difficulty with competition from other health care professions for clinical training sites, more so than with offshore medical schools. As enrollment across health professions increases and medical school enrollment is projected to continue to increase, it is anticipated that clerkship concerns will persist and will likely continue to grow. Further research is necessary to examine the availability of clinical training sites across health care professions and potential solutions to address difficulties with clinical training sites.

Notes

1. Association of American Medical Colleges. AAMC statement on the physician workforce. www.aamc.org/download/55458/data/workforceposition.pdf. Published June 2006. Accessed March 3, 2017.
2. Erikson C, Hamann R, Levitan T, Pankow S, Stanley J, Whatley M. *Recruiting and Maintaining U.S. Clinical Training Sites: Joint Report of the 2013 Multi-Discipline Clerkship/Clinical Training Site Survey*. Washington, DC: Association of American Medical Colleges; 2014.
3. Association of American Colleges of Osteopathic Medicine. *First-Year Enrollment by Gender 1968-2018*. www.aacom.org/reports-programs-initiatives/aacom-reports/student-enrollment. Published February 2018. Accessed April 24, 2018.
4. Berlin LE, Stennet J, Bednash GD. *2002–2003 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing*. Washington, DC: American Association of Colleges of Nursing; 2003.
5. Fang D, Li Y, Kennedy KA, Trautman DE. *2016-2017 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing*. Washington, DC: American Association of Colleges of Nursing; 2017.
6. Simon A, Link M, Miko A. *Nineteenth Annual Report on Physician Assistant Educational Programs in the United States, 2002–2003*. Alexandria, VA: Association of Physician Assistant Programs; 2003.
7. Physician Assistant Education Association. *By the Numbers: Program Report 32: Data from the 2016 Program Survey*. Washington, DC: Physician Assistant Education Association; 2017. doi:10.17538/PR32.2017.

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Data in this *AIB* reflect some highlights of the AAMC report [Results of the 2017 Medical School Enrollment Survey](#), which is available as a free download.

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