American Association of Colleges of Nursing

aacom AMERICAN ASSOCIATION OF COLLEGES OF OSTEOPATHIC MEDICINE

PAEA PHYSICIAN ASSISTANT EDUCATION ASSOCIATION

AAMC Tomorrow's Doctors, Tomorrow's Cures®

Recruiting and Maintaining U.S. Clinical Training Sites

Joint Report of the 2013 Multi-Discipline Clerkship/Clinical Training Site Survey

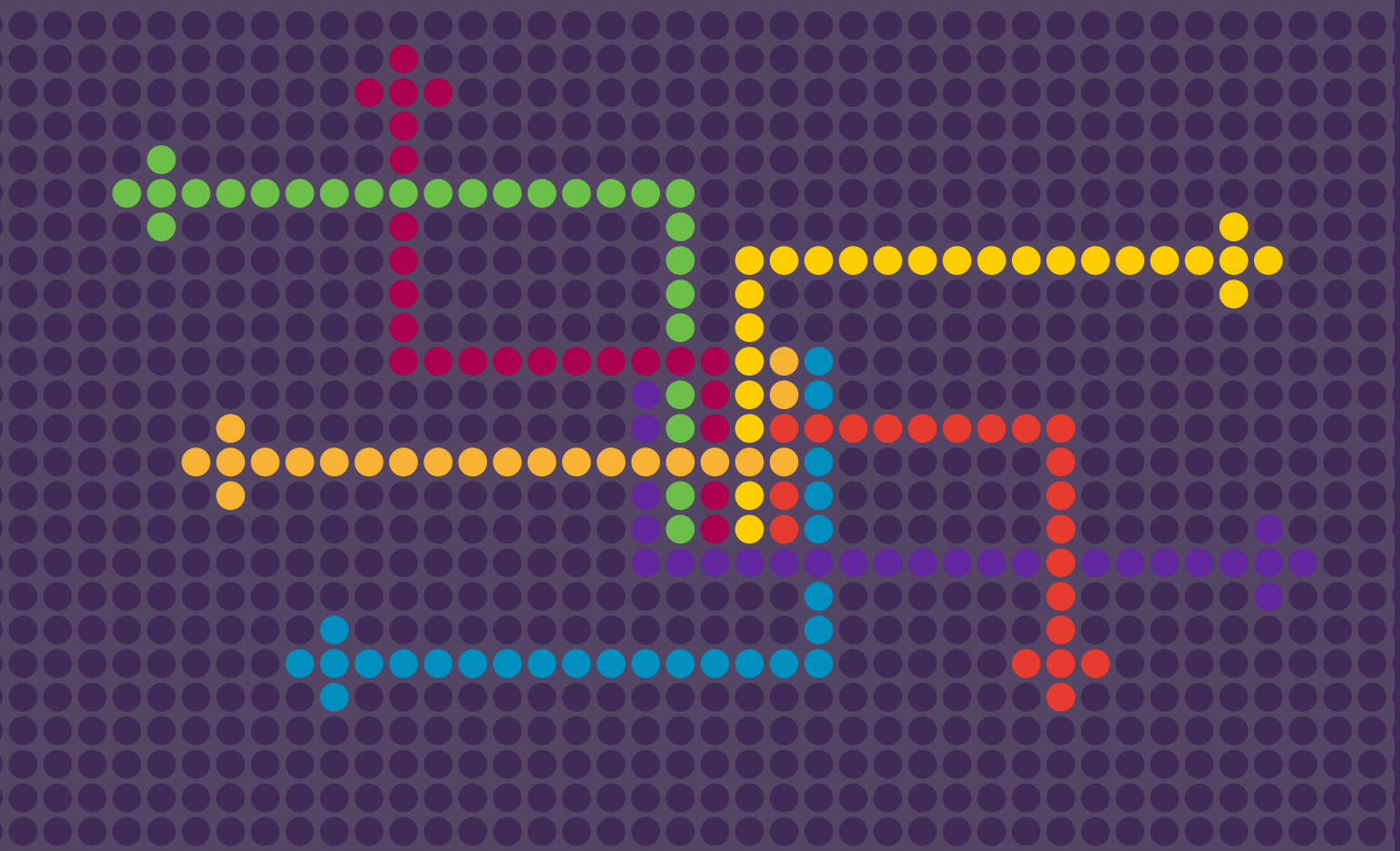


Table of Contents

Acknowledgements 1
Executive Summary 2
Background 4
Methodology 6
Limitations 7
Results 8
Concern about adequacy of clerkships/clinical training sites 8
Changes in difficulty developing and preserving core sites 9
Factors influencing the ability to develop new sites and preserve existing sites 10
Difficulty finding sites by specialty 11
The effect of clerkship/clinical training sites on enrollment capacity 12
Incentives for community-based sites 13
Payment practices by region 15
Cost of clerkship incentives 16
Sources of funding for paid sites 16
Pressure to provide or increase financial compensation incentives 17
Sources of competition for clinical sites 18
Competition strategies used by other schools 19
Solutions 20
Summary and Discussion 21
Appendix 22
Key Definitions 22
Commonly Used Acronyms 22

Acknowledgments

The 2013 Clerkship Survey would not have been possible without the collaboration of the American Association of Colleges of Nursing (AACN), the American Association of Colleges of Osteopathic Medicine (AACOM), the Association of American Medical Colleges (AAMC), and the Physician Assistant Education Association (PAEA). The authors are especially grateful to the deans and administrators of the schools and programs for their participation in the survey. The authors also would like to acknowledge Karen Jones, Stacie Pankow, Laura Petri, and Michel Statler for their valuable contributions in the early stages of the project and in drafting the report.

We welcome comments regarding the information contained in this report and/or suggestions for future studies of clerkship/clinical training experiences.

Clese Erikson, Senior Director of the Center for Workforce Studies
AAMC
cerikson@aamc.org

Rachel Hamann, Manager, Research
PAEA
rhamann@PAEAonline.org

Thomas Levitan, Vice President for Research and Assistant to the President for Special Projects
AACOM
tlevitan@aacom.org

Joan Stanley, Senior Director of Educational Policy
AACN
jstanley@aacn.nche.edu

Monica Whatley, Data Analyst
AAMC
mwhatley@aamc.org

Executive Summary

This report summarizes the results of a March 2013 online survey designed to gain insight into the concerns and experiences of M.D.-granting medical schools, D.O.-granting medical schools, nurse practitioner (N.P.) programs, and physician assistant (P.A.) programs regarding clerkship or clinical training sites. The survey was developed and administered by the American Association of Colleges of Nursing (AACN), the American Association of Colleges of Osteopathic Medicine (AACOM), the Association of American Medical Colleges (AAMC), and the Physician Assistant Education Association (PAEA) and was sent to the dean or director of every eligible school or program in the four disciplines. Survey items included questions about the adequacy of sites and its effect on enrollment, the incentives used and costs incurred in order to obtain sites, sources of competition for sites, and alternative solutions implemented by institutions to provide clinical training to students.

Key findings:

Across all four disciplines, most respondents have experienced increasing difficulty obtaining clinical training sites.

- At least 80 percent of respondents in each discipline felt concern regarding the adequacy of the number of clinical training sites.
- More than 70 percent of respondents in each discipline felt that developing new sites was more difficult in 2013 than it had been two years before.
- The key factors influencing the ability to develop new sites were security and legal requirements and training and orientation of preceptors.
- Despite observed growth in schools/programs and enrollment over the last decade, the majority of respondents indicated that the number of available sites and competition for sites have an impact on enrollment capacity in their programs.

Most respondents experienced the greatest challenges with obtaining primary care sites.

- Across all disciplines, the top two specialties reported as being the most difficult to find sites were pediatrics and OB/GYN.
- Primary care site shortages were less of an issue for D.O. respondents, with family medicine sites being difficult to obtain for 3 percent of D.O. respondents, compared with 34 to 60 percent of M.D., N.P., and P.A. respondents.

Respondents were more concerned about competing with U.S. schools/programs (especially in their own discipline) than with off-shore medical schools.

- With the exception of D.O. schools, each discipline was most competitive with itself. D.O. schools were most competitive with U.S. M.D. schools.
- The percentage of respondents who felt that they were competing with off-shore (i.e., Caribbean) medical schools varied widely by discipline, ranging from 5 percent of N.P. respondents to 52 percent of D.O. respondents.

While more than 70 percent of respondents said they thought other schools were paying for clerkships, the use of payment incentives for community-based sites was relatively uncommon for most disciplines.

- Payment incentives for community-based sites were used by 71 percent of D.O. respondents, 20 percent of P.A. respondents, 15 percent of M.D. respondents, and 4 percent of N.P. respondents.
- The majority of those who pay for community-based sites obtained funding by reallocating money in the budget and/or increasing tuition.

More than half of respondents felt pressured to pay for sites.

- Regardless of their use of monetary incentives, 58 to 93 percent of respondents in each discipline felt moderate to extremely high pressure to either increase or begin using financial compensation incentives, particularly for new sites.

Many respondents have implemented a variety of non-monetary incentives and alternative solutions to address clinical training site shortages.

- The most common non-monetary incentives used in order to compete for sites were faculty positions, professional development opportunities, library access, and public recognition.
- To resolve site shortages, many schools and programs indicated they were expanding the radius of their search for sites, using simulations, implementing supplemental didactic or computer-based curricula, and/or increasing the student-preceptor ratio.

Not all respondents experienced shortages in clinical training sites.

- About 20 percent of M.D. and D.O. schools and about 7 to 9 percent of N.P. and P.A. programs indicated they had no shortage of clerkship/clinical training sites, and similar shares of respondents in each discipline said they were not concerned about the number of available sites.

Background

Within the health care curriculum, clinical teaching sites serve an essential function. These sites give medical, nurse practitioner, and physician assistant students hands-on opportunities with patients in real-world settings. All four disciplines are seeking clinical experiences in many of the same practice areas and settings and face challenges finding or maintaining clerkship/clinical training sites.

Concern regarding the adequacy of clerkship/clinical training sites has become a more pressing issue in recent years because of increased competition for sites and a shortage of willing and well-trained preceptors. There has been marked growth in schools and enrollment across all disciplines, including 59 new P.A. programs, 57 additional schools with N.P. programs, 16 newly accredited M.D.-granting medical schools, and 7 new D.O.-granting medical schools since 2002.[1] When combined with growth at existing schools, the development of new schools has led to an overall 18 percent increase in first-year enrollment at M.D.-granting medical schools, a 96 percent increase in first-year enrollment at D.O.-granting medical schools, a 215 percent increase in total enrollment at N.P. programs, and a 66 percent increase in first-year enrollment at P.A. programs from 2002 to 2012.[2,3,4]

Adding to the competition resulting from expanded enrollment is increased competition from students enrolled in distance education programs and off-shore medical schools. Media sources report that some off-shore medical schools have created agreements with state hospital associations and pay clerkship sites as much as $400 per student per week, making it difficult for local health care institutions to compete for sites and expand their own programs.[5,6,7] However, little is known about which schools and disciplines are most affected by outside competition and what these institutions are doing to compete for clinical training sites. Though some schools may be able and willing to provide monetary incentives to compete for clerkship sites, many other schools may implement alternative solutions or face continued challenges with acquiring training sites for their students.

[1] The number of new D.O.-granting medical schools does not include eight additional branch campuses and teaching sites that were added since 2002.

[2] AACN (2013) Results of annual enrollment and graduation surveys. Institutional Data System. Washington, D.C.: American Association of Colleges of Nursing.

[3] PAEA (2011) Twenty-Seventh Annual Report of Physician Assistant Educational Programs in the United States. 2010-2011. http://www.paeaonline.org/index.php?ht=a/GetDocumentAction/i/149930

[4] AAMC (2013) Results of the 2012 Medical School Enrollment Survey. https://members.aamc.org/eweb/DynamicPage.aspx?Action=Add&ObjectKeyFrom=1A83491A-9853-4C87-86A4-F7D95601C2E2&WebCode=PubDetailAdd&DoNotSave=yes&ParentObject=CentralizedOrderEntry&ParentDataObject=Invoice%20Detail&ivd_formkey=69202792-63d7-4ba2-bf4e-a0da41270555&ivd_prc_prd_key=6606B030-4633-4C07-BD78-8C0D8466520A

[5] Hartocollis, Anemona. (2008) "New York Hospitals Create Outcry in Foreign Deal." NYTimes.com, http://www.nytimes.com/2008/08/05/nyregion/05grenada.html?pagewanted=all&_r=0

[6] "Students From Caribbean Med Schools Head for New York, Angering Some Local Programs." (2010) Chronicle.com, http://chronicle.com/article/Students-From-Caribbean-Med/125681/

[7] Haurwitz, Ralph K.M. "Caribbean medical school's proposal stirs controversy in Texas." (2012) Statesman.com, http://www.statesman.com/news/news/local-education/caribbean-medical-schools-proposal-stirs-controver/nRpPR/

The prevalence of concern regarding clinical training shortages is already well-documented across health disciplines. A 2009 survey of the deans of D.O.-granting medical schools indicated that 63 percent of schools were either moderately or very concerned regarding the overall number of undergraduate clinical training sites.[8] In the 2012 annual enrollment survey of M.D.-granting medical school deans, 78 percent of respondents reported being concerned regarding the number of clinical training sites.[9] In the 2012 annual enrollment and graduation survey of schools of nursing, more than 60 percent of nurse practitioner programs reported that insufficient clinical sites and insufficient clinical preceptors were one of the major reasons for not accepting qualified applicants.[10] Physician assistant programs also have voiced concern regarding clinical training sites, citing a shortage of sites as one of the largest barriers to these programs' sustained growth and success.[11]

The aim of this report is to document these clinical training issues in greater detail and compare the experiences of M.D.-granting medical schools, D.O.-granting medical schools, N.P. programs, and P.A. programs. Using information obtained through an online survey of the deans and directors of schools and programs in all four disciplines, this report highlights the common concerns of each discipline regarding shortages in clerkships/clinical training sites and the strategies used to address those concerns.

[8] Levitan, Tom. (2009) A Report on a Survey of Osteopathic Medical School Growth: Analysis of the Fall 2009 Survey. http://www.aacom.org/resources/bookstore/Documents/GrowthRpt2009.pdf

[9] AAMC (2013) Results of the 2012 Medical School Enrollment Survey. https://members.aamc.org/eweb/DynamicPage.aspx?Action=Add&ObjectKeyFrom=1A83491A-9853-4C87-86A4-F7D95601C2E2&WebCode=PubDetailAdd&DoNotSave=yes&ParentObject=CentralizedOrderEntry&ParentDataObject=Invoice%20Detail&ivd_formkey=69202792-63d7-4ba2-bf4e-a0da41270555&ivd_prc_prd_key=6606B030-4633-4C07-BD78-8C0D8466520A

[10] Fang, D., Li, Y., Bednash, G.D. (2013) 2012-2013 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing. Washington, D.C.: American Association of Colleges of Nursing.

[11] Glicken, Anita Duhl and Anthony A. Miller. (2013) "Physician Assistants: From Pipeline to Practice." Academic Medicine, 88(12).

Methodology

The data summarized in this report are from an online survey developed by the American Association of Colleges of Nursing (AACN), the American Association of Colleges of Osteopathic Medicine (AACOM), the Association of American Medical Colleges (AAMC), and the Physician Assistant Education Association (PAEA). In order to develop the questions for the survey, each of the four organizations conducted structured interviews with five or six schools/programs in their respective discipline. The insights gained from the interviews helped the researchers identify key questions and response categories to include on the survey.

The survey instrument, which consisted of 19 total items, is available as a supplemental file to this report. Thirteen items had structured response categories and most were accompanied by an open-ended "Other" category where applicable. There also was an open-ended item at the end of the survey that asked respondents to provide general comments and additional information. Five items about monetary incentives also were open-ended in order to allow respondents to type dollar and percent values. Survey questions were asked of all respondents, except for questions about monetary incentives, which were not asked if the respondent previously indicated its school or program did not use monetary incentives.

Survey invitations were emailed in March 2013 to the dean or director of every eligible member institution of each of the four disciplines, followed by three email reminders.[12] Universities with schools or programs in more than one discipline were allowed to be represented more than once and separate invitations were sent to the dean or director of each discipline.

The overall response rate was 85 percent, but varied by discipline and was lower for some individual questions (**Table 1**). Responses for each discipline are summarized in aggregate form in the body of this report. Additionally, comprehensive summary tables are provided as a supplemental file and contain the aggregate responses for each discipline.

Respondents were instructed to answer all questions as they relate to core or required clinical rotations. For the questions regarding monetary incentives, respondents were asked to consider only core or required clinical rotations in community-based sites outside of academic settings. To clarify this instruction, these sites were called "non-academic, community-based sites" in the survey and are referred to as "community-based sites" in this report.

Table 1. Response Rates for the 2013 Clerkship Survey, by Discipline

Discipline	Total number of schools/ programs invited to complete survey	Total number of survey responses	Response rate
M.D.	135	112	83%
D.O.	34	31	91%
N.P.	353	300	85%
P.A.	163	137	84%
Total	**685**	**580**	**85%**

[12] Our eligibility criteria included only accredited schools/programs that had at least one class of students as of March 2013.

Limitations

The Clerkship Survey and resulting data have several limitations. First, because of the scarcity of prior research on clerkship shortages, there are no comparable data available. Because this is the first and only survey of its kind, many of the questions should be regarded as preliminary and exploratory in nature and cannot be tested for consistency or accuracy.

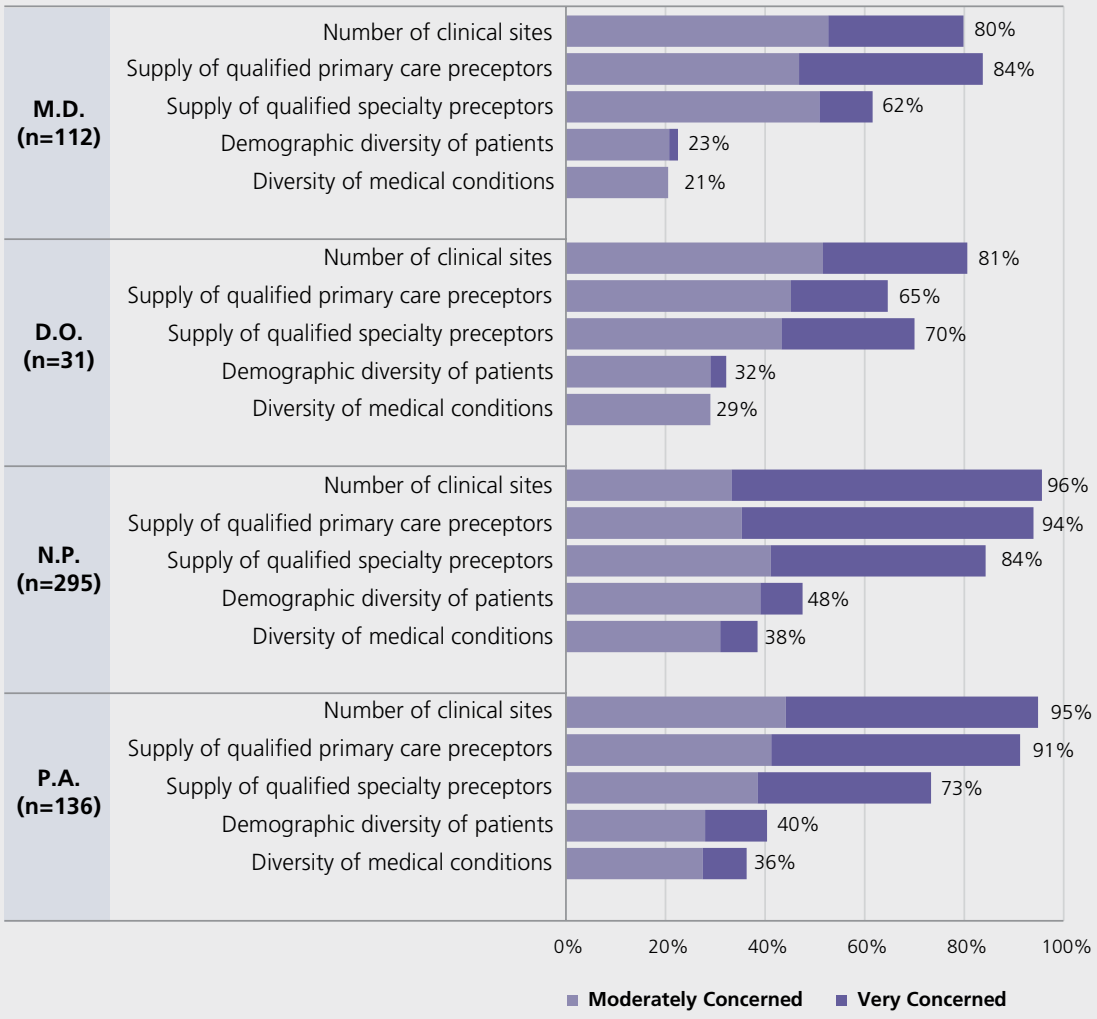
Second, the data are self-reported and may contain some bias or imprecision as a result of respondent interpretation, particularly surrounding what constitutes a non-academic, community-based site. The open-ended format of some of the questions also required a small degree of interpretation by the analysts in order to code the responses and develop the results and conclusions presented in this report. Though respondents who provided monetary incentives to sites were asked to provide the weekly rate per student, some respondents provided more than one weekly rate (e.g., by specialty) and others provided a rate in a unit other than a weekly per-student fee. Comments provided by respondents at the end of the survey also were used to increase the accuracy of the data and clarify any discrepancies in the responses.

Results

Concern about adequacy of clerkships/clinical training sites

Overall, the vast majority of respondents expressed concern regarding the number of clinical sites. Figure 1 shows the share of respondents in each discipline who responded that they were either "moderately concerned" or "very concerned" about the adequacy of clinical opportunities for students. With the exception of D.O. schools, respondents were more concerned with the supply of primary care preceptors compared to specialty preceptors. A smaller, yet substantial share of respondents expressed concern about having adequate diversity of both medical conditions and patients in clerkship/clinical training sites.

Figure 1. Percent of Respondents Who Felt "Moderately Concerned" and "Very Concerned" about the Adequacy of Clinical Opportunities for Students, by Discipline

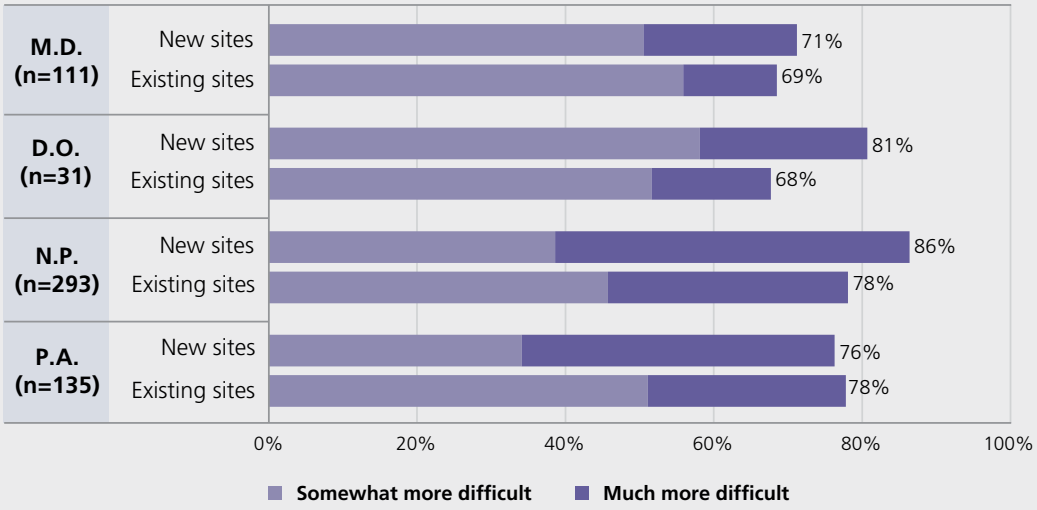


Note: Maximum number of respondents to the set of questions; number responding to each item is shown in the appendix.

Changes in difficulty developing and preserving core sites

Respondents were asked to indicate whether developing and sustaining core sites was more difficult in 2013 than it had been two years before. Overall, more than 70 percent of respondents in each discipline indicated they are having more difficulty developing new sites now than two years previously (**Figure 2**). Preserving existing sites also is more difficult for the majority of respondents, particularly for N.P. and P.A. programs.

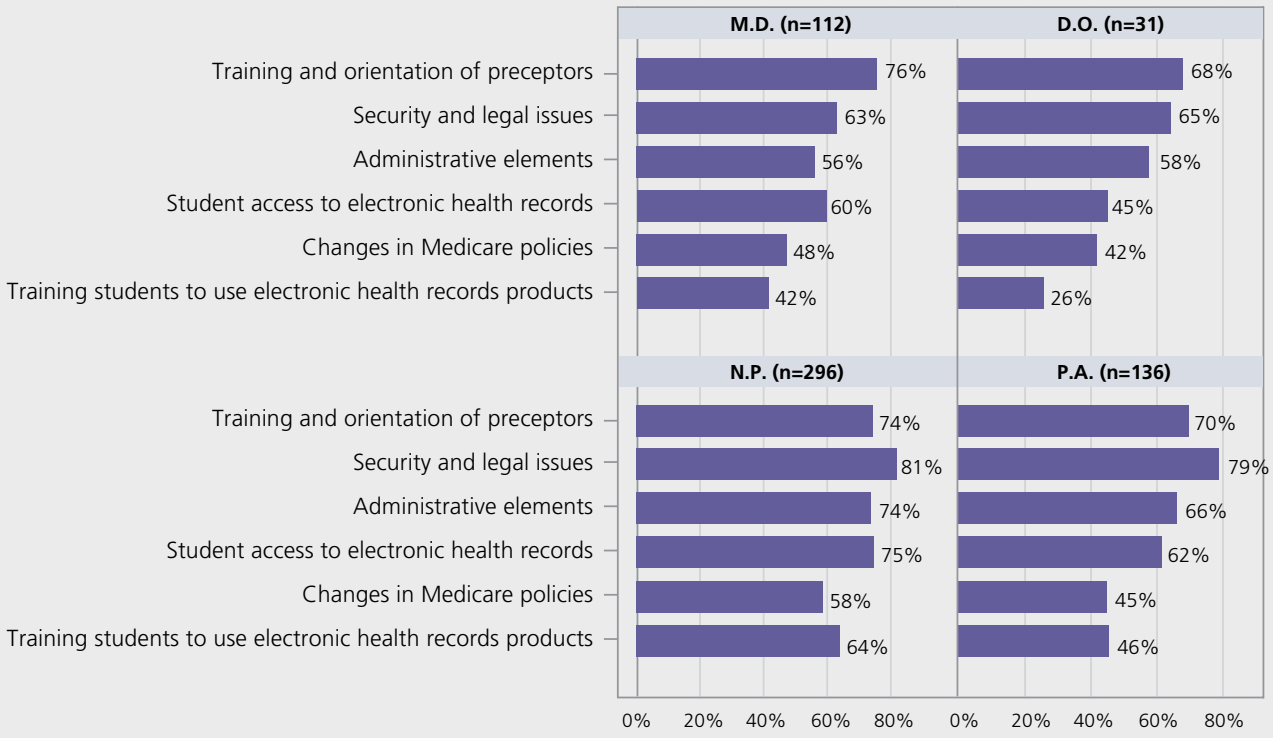
Figure 2. Percent of Respondents Who Reported Increased Difficulty Developing New Core Sites and Preserving Existing Core Sites Compared with Two Years Ago, by Discipline



Factors influencing the ability to develop new sites and preserve existing sites

Respondents were asked about the importance of selected elements contributing to their institutions' ability to develop new sites and preserve existing sites. Across all disciplines, two of the most widely reported factors influencing institutions' ability to develop new sites were security and legal issues (e.g., common affiliation agreements, immunizations, background checks) and training and orientation of preceptors (**Figure 3**). Institutions responded similarly when asked about the factors influencing their ability to preserve existing sites.

Figure 3. Percent of Respondents Who Rated Factors as "Important" or "Very Important" in Program's/Institution's Ability to Develop New Clerkship/Clinical Training Sites



Note: Maximum number of respondents to the set of questions; number responding to each item is shown in the appendix.

Difficulty finding sites by specialty

Each discipline had a unique set of core specialties for which they had difficulty finding sites (**Table 2**). Pediatrics, OB/GYN (women's health), and psychiatry were widely reported across all disciplines as being difficult specialties for which to find clinical sites. Though 34 to 60 percent of M.D., N.P., and P.A. respondents reported having difficulties finding family medicine sites, only 3 percent of D.O. respondents reported having difficulties finding family medicine sites. Similarly, while internal medicine was reported as being a difficult specialty by 30 to 40 percent of M.D., N.P., and P.A. respondents, only 16 percent of D.O. respondents reported having difficulties finding internal medicine sites.

Some respondents indicated that they did not have any difficulties finding sites. The share of respondents with no difficulties finding sites was highest for M.D. schools (16 percent), followed by D.O. schools (10 percent), N.P. programs (3 percent), and P.A. programs (3 percent).

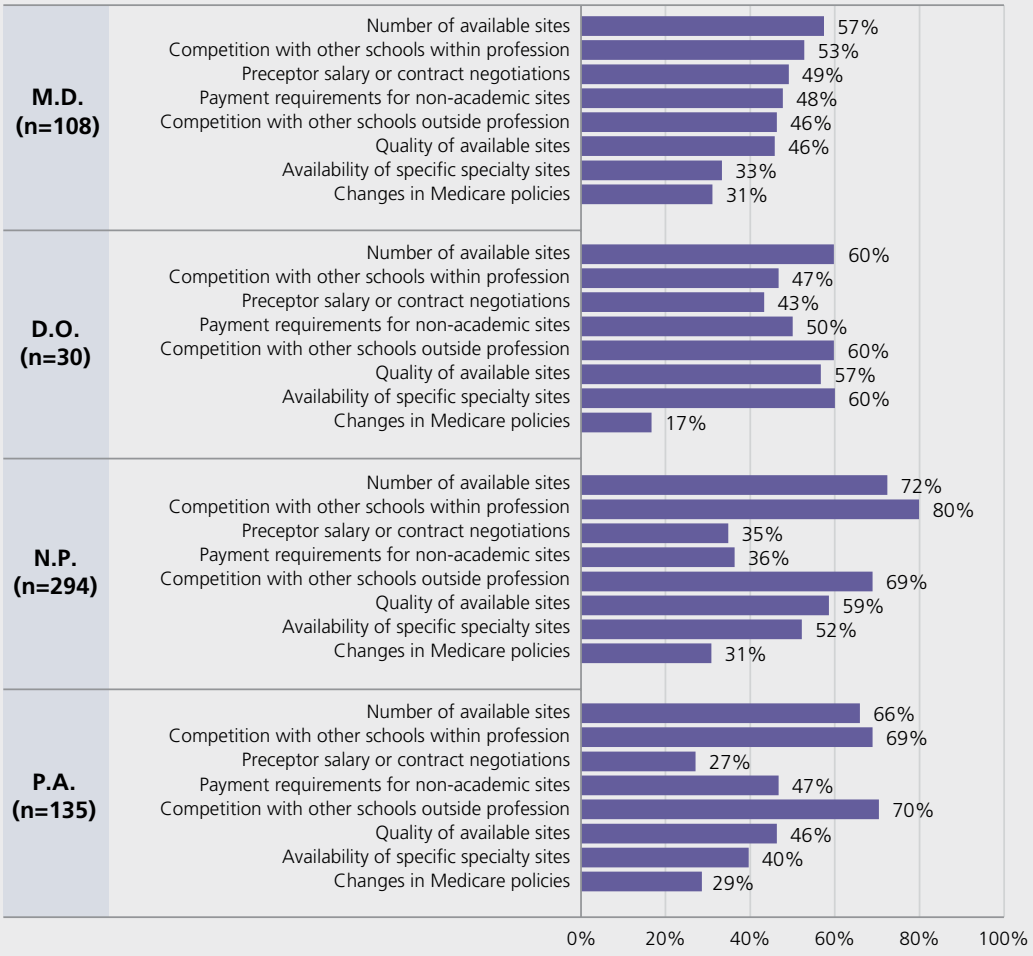
Table 2. Percent of Respondents Who Reported Difficulty Finding Core Clinical Sites, by Discipline

	M.D. (n=110)	D.O. (n=31)	N.P. (n =300)	P.A. (n=137)
1	Pediatrics (55%)	Pediatrics (77%)	Outpatient Pediatrics (77%)	Obstetrics/Gynecology (86%)
2	Obstetrics/Gynecology (49%)	Obstetrics/Gynecology (74%)	Outpatient Women's Health (70%)	Pediatrics (77%)
3	Family Medicine (47%)	Psychiatry (42%)	Outpatient Family Health (60%)	Psychiatry (47%)
4	Internal Medicine (36%)	Osteopathic Manipulative Medicine (35%)	Outpatient Internal Medicine (40%)	General Surgery (36%)
5	Psychiatry (36%)	General Surgery (23%)	Outpatient Adult Gerontology Health (35%)	Family Medicine (34%)
6	Neurology (26%)	Emergency Medicine (19%)	Outpatient Psychiatry/ Mental Health (30%)	Internal Medicine (30%)
7	General Surgery (23%)	Internal Medicine (16%)	Inpatient Pediatrics (19%)	Emergency Medicine (29%)
8	Emergency Medicine (14%)	Radiology (10%)	Acute Care Emergency (13%)	Other (8%)
9	Community Medicine (12%)	Other (6%)	Inpatient Med/Surgery (12%)	Community Medicine (7%)
10	Radiology (7%)	Family Medicine (3%)	Inpatient Specialists (10%)	Radiology (4%)
11		Neurology (3%)	Acute Care Rehabilitation (7%)	Neurology (2%)
12			Long-Term Care (7%)	
13			Other (6%)	

The effect of clerkship/clinical training sites on enrollment capacity

The survey asked respondents to identify factors associated with clerkship/clinical training sites that have had an impact on enrollment capacity in their programs (**Figure 4**). The most widely reported factors limiting enrollment capacity include the number of available sites and competition with other schools (both within and among the four health disciplines). M.D. schools also were widely affected by preceptor salary and contract negotiations as well as payment requirements. D.O. schools were particularly affected by the availability of specific specialty sites and the quality of available sites. P.A. and N.P. programs responded similarly overall, although N.P. programs were more likely to be limited by competition with other schools from within the discipline, the quality of sites, and availability of specialty sites. P.A. programs were more likely than N.P. programs to be limited by payment requirements for non-academic sites.

Figure 4. Percent of Respondents Who Cited Factors Related to Clerkship/ Clinical Training Sites That Limit Enrollment Capacity, by Discipline



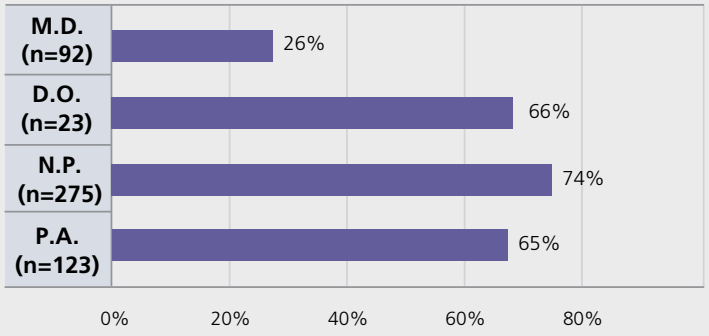
Note: Maximum number of respondents to the set of questions; number responding to each item is shown in the appendix.

Incentives for community-based sites

As the need for clerkship/clinical training sites continues to expand, it is important to examine strategies for recruiting and retaining sites. In response to growing concern over the shortage of clinical training sites, schools and programs, although it differs by discipline, have begun to provide incentives to procure community-based training sites for their students. The survey asked respondents a series of questions regarding the incentives provided to core clinical training sites that are located in community-based settings. Questions included the types of incentives provided to community-based training sites, the share of community-based sites that are paid, the price per student paid to community-based sites, and the degree of pressure to provide or increase payments to sites.

While community-based sites are the focus of this section, not all clerkships/clinical training sites are located in community-based settings (e.g. in community based hospitals, clinics, or other health care facilities not directly affiliated with a school or program). The reported percentage of clerkship/clinical training sites in community-based settings varied within and across disciplines, from an average of 26 percent for M.D. schools to 74 percent for N.P. programs (**Figure 5**). This likely reflects in part a variation in the training and in the number of schools and programs that are part of a health system or have formal affiliations with a teaching hospital or other university/campus-based training site.

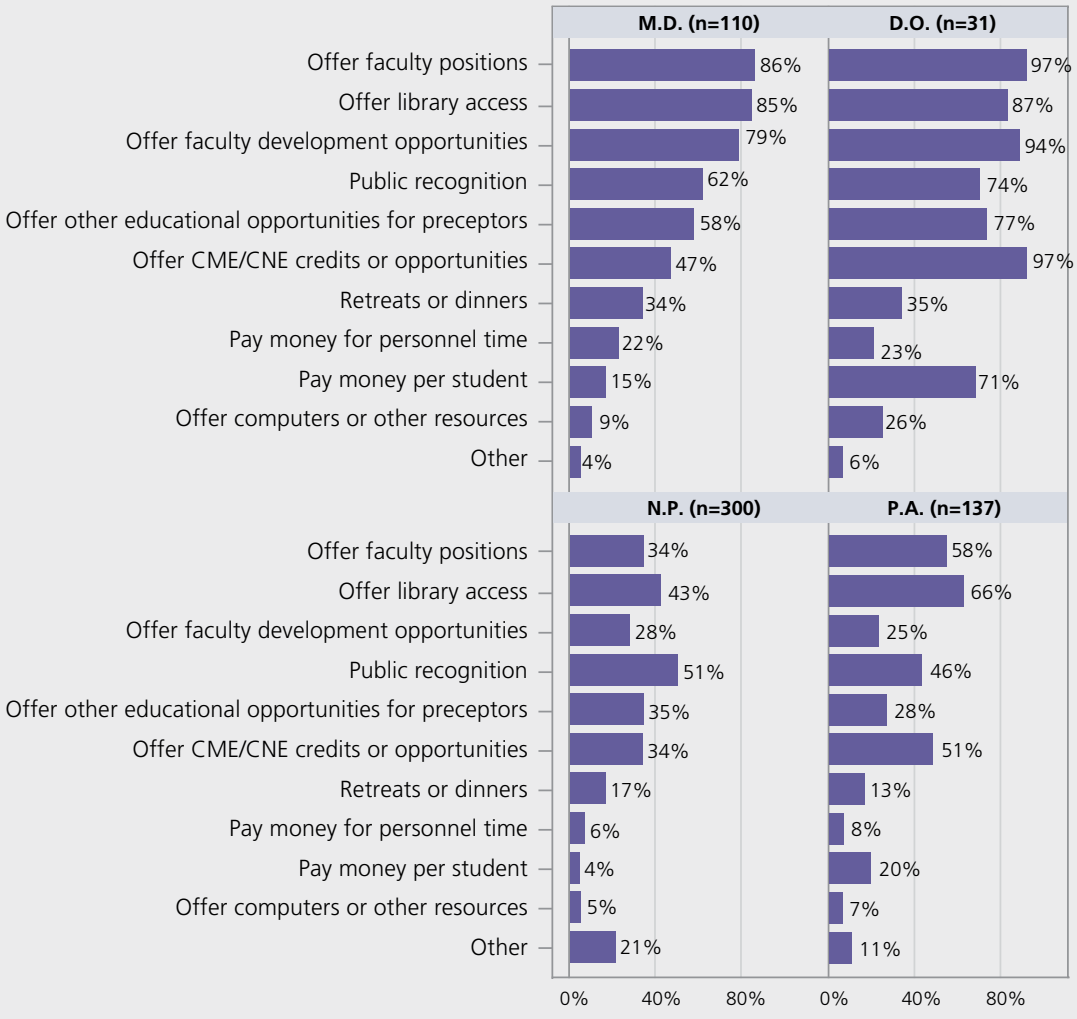
Figure 5. Average Reported Percentage of Clerkships/ Clinical Training Sites in Community-Based Settings, by Discipline



Across all disciplines, the top incentives provided were non-monetary, including faculty positions, library access, public recognition, faculty development opportunities, and CME/CNE credits (**Figure 6**). In terms of monetary incentives, the share of respondents indicating that they pay a per-student fee at one or more community-based sites was highest for D.O. schools (71 percent), followed by P.A. programs (20 percent), M.D. schools (15 percent), and N.P. programs (4 percent). M.D. schools and N.P. programs were more likely to pay a fee for personnel time than a fee per student, while D.O. schools and P.A. programs were more likely to pay a fee per student.

Very few respondents indicated that they pay both types of fees (2 percent of all respondents). Additionally, about 5 percent of M.D. schools, 13 percent of D.O. schools, 21 percent of N.P. programs, and 13 percent of P.A. programs reported that their institution has regulations or policies that prevent them from offering monetary compensation to training sites.

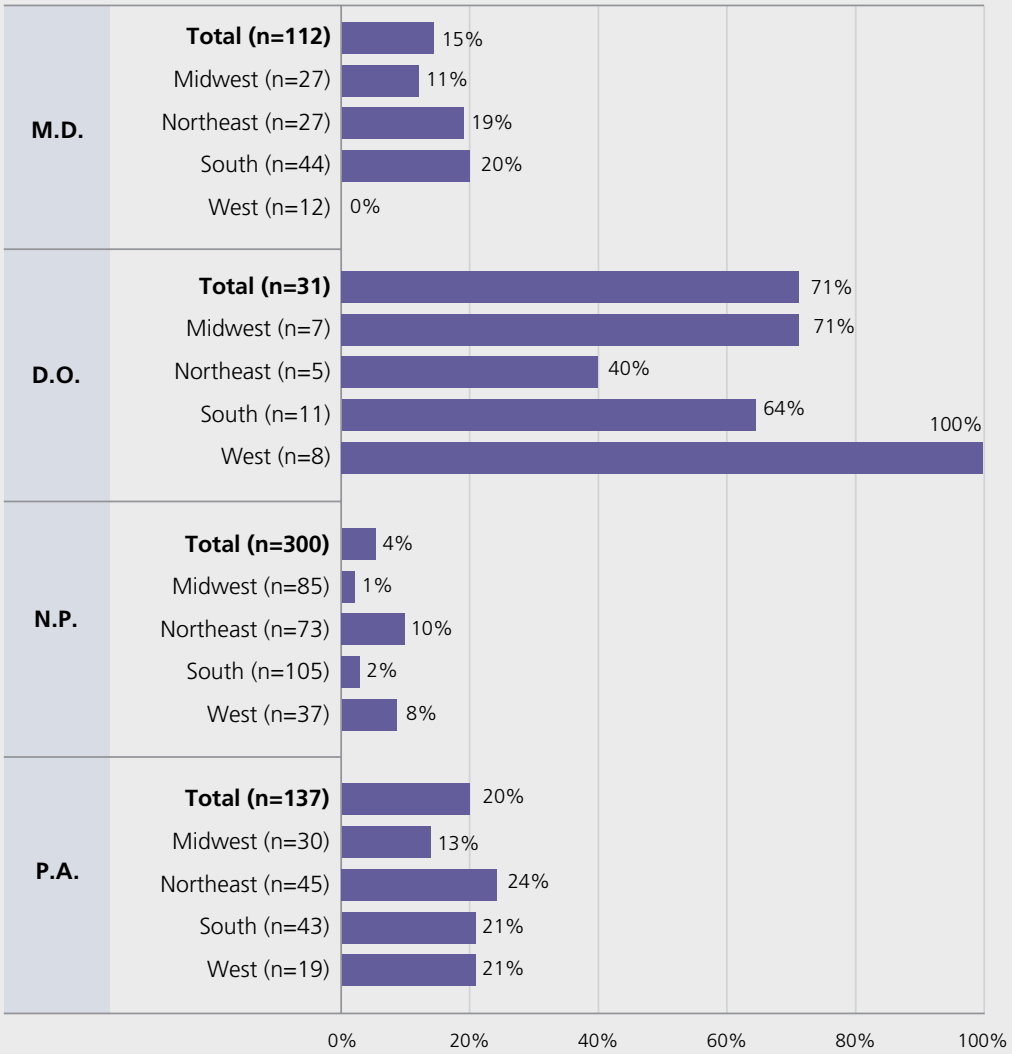
Figure 6. Percent of Respondents Who Rated the Use of Incentives for Community-Based Sites, by Discipline



Payment practices by region

The share of respondents who pay a fee per student at one or more community-based sites varied considerably by region, even within disciplines (**Figure 7**). However, caution should be used in the interpretation of these statistics, given the relatively small number of schools/programs in certain regions. While all eight Western D.O. schools reported the use of payment per student as an incentive to obtain clerkships, only two out of five (40 percent) Northeastern D.O. schools did so. Conversely, while none of the 12 Western M.D. schools reported the use of payment for clerkships, payment was used by roughly one-fifth of M.D. schools in the South and Northeast. Among P.A. and N.P. programs, the use of payment was greatest for programs in the Northeast and lowest in the Midwest.

Figure 7. Percent of Respondents Who Reported Paying Money per Student to One or More Community-Based Sites, by Discipline and Region



Midwest: IA, IL, IN, KS, MI, MN, MO, NE, ND, OH, SD, WI.
Northeast: CT, DE, ME, MA, NH, NJ, NY, NY, PA, RI, VT.
South: AL, AR, DC, FL, GA, KY, LA, MD, MS, NC, OK, PR, SC, TN, TX, VA, WV.
West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY.

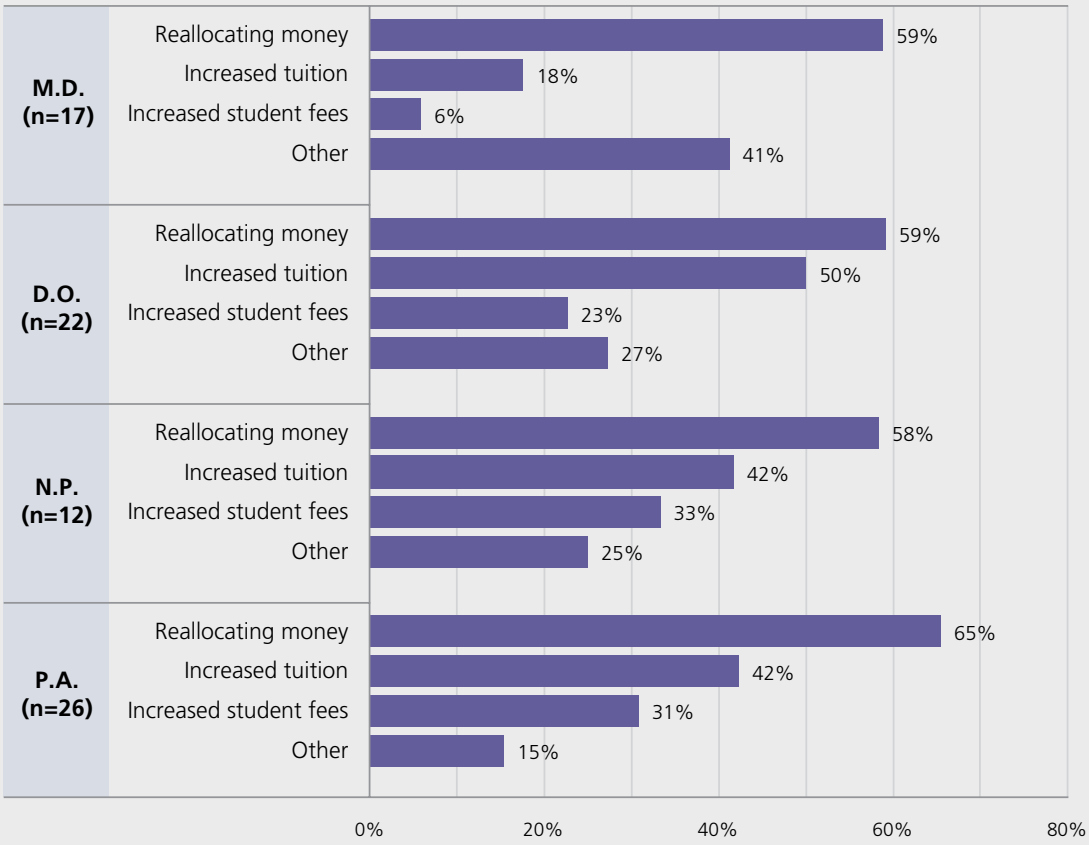
Cost of clerkship incentives

Institutions that pay a fee per student to at least one community-based site were asked to provide information about the minimum, maximum, and average fee per student per week. The median response provided for the average per-student fee was $125. Because of the small number of schools that pay for sites in some disciplines and the low number of responses provided for this item, data are not provided by discipline.

Sources of funding for paid sites

More than half of schools that pay for community-based sites indicated that they reallocated money from other parts of the budget (**Figure 8**). In addition to reallocating money, 42 percent of N.P. and P.A. programs and half of D.O. schools offset costs through increased tuition. M.D. schools listed "Other" as the second most frequent response, listing grants, state funding, startup funds, and Area Health Education Center (AHEC) program funding as sources of funding. Additionally, many M.D. schools, D.O. schools, and N.P. programs that marked "Other" indicated that money was already allocated in the budget to cover paid clerkships/clinical training.

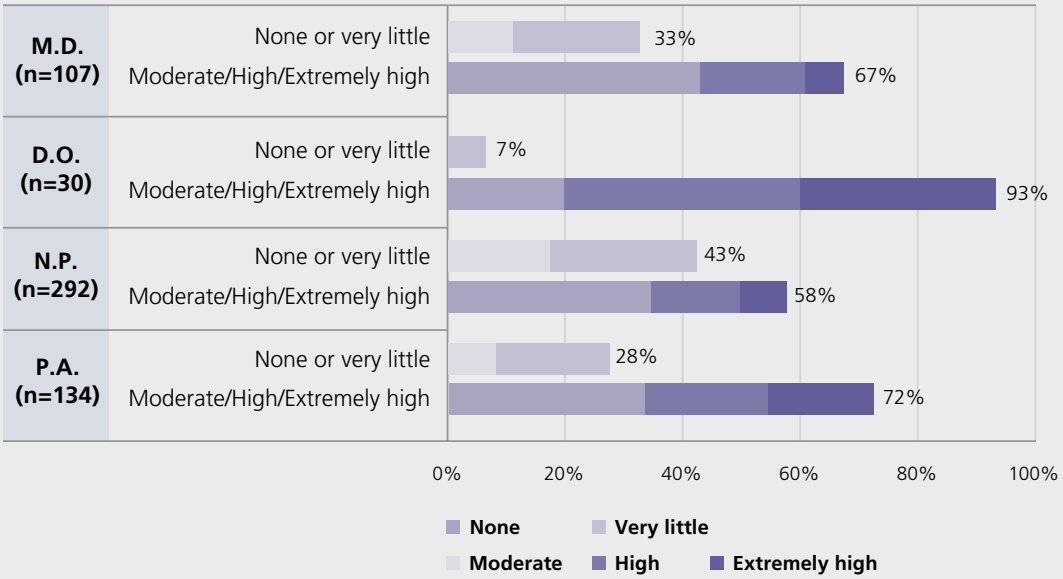
Figure 8. Percent of Respondents Who Reported Funding Sources for Paid Community-Based Sites, by Discipline



Pressure to provide or increase financial compensation incentives

Most respondents felt at least some pressure to provide financial compensation incentives for new clerkship/clinical training sites (**Figure 9**). The overall degree of pressure differed dramatically by discipline, with D.O. schools indicating the greatest pressure to provide financial compensation incentives. A third of respondents from D.O. schools indicated that they felt extremely high pressure to provide financial compensation incentives to new sites, compared with 7 to 18 percent for other disciplines. Trends for responses about increasing financial incentives to existing sites were similar, though slightly lower.

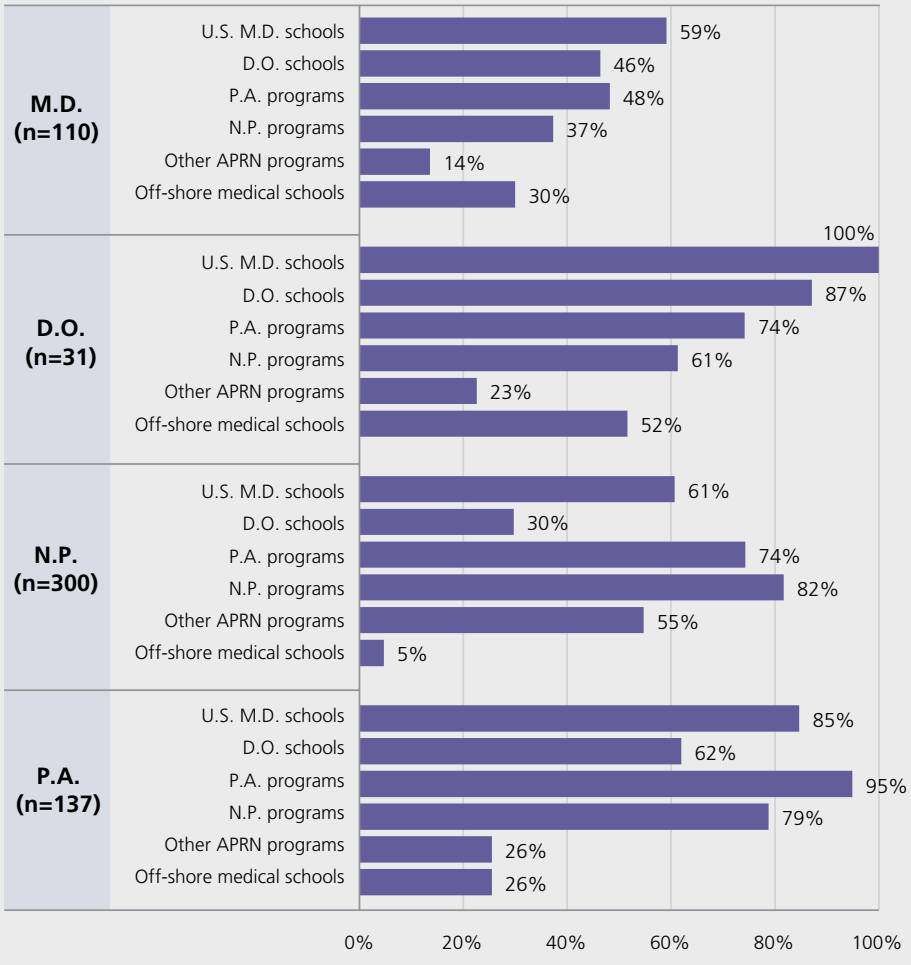
Figure 9. Percent of Respondents Who Reported the Degree of Pressure to Provide Financial Compensation Incentives for New Clinical Training Sites in Community-Based Settings, by Discipline



Sources of competition for clinical sites

Clerkship/clinical training site shortages and related concerns experienced by many institutions are associated with increased competition among disciplines. Each respondent was asked to indicate all disciplines (including his or her own) with which he or she competes for clerkship/clinical training sites. With the exception of D.O. schools, each discipline was most competitive with itself (**Figure 10**). Compared with M.D. schools and P.A. programs, N.P. programs were less likely to compete with D.O. schools and off-shore medical schools, and much more likely to compete with other APRN programs. Overall, APRN programs and off-shore medical schools were the least likely to be selected.

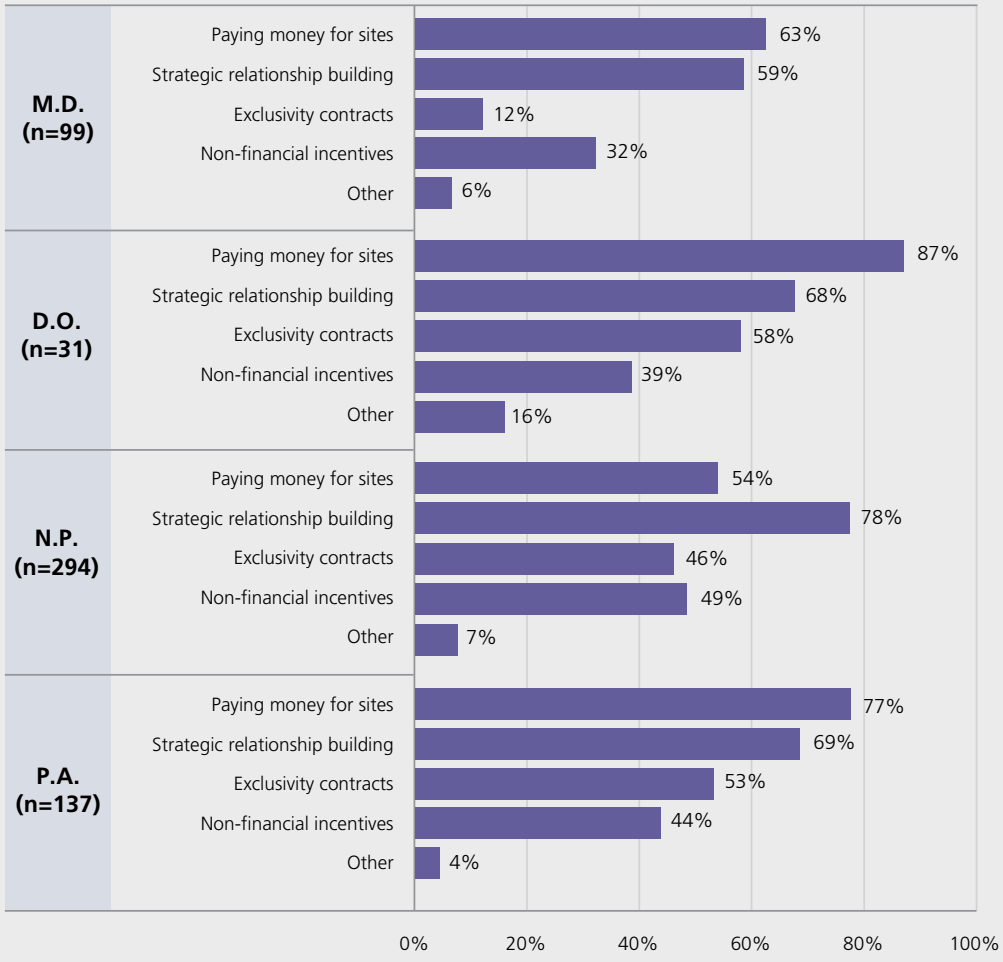
Figure 10. Percent of Respondents Who Reported Sources of Competition for Clinical Sites, by Discipline



Competition strategies used by other schools

In addition to indicating the ways in which their own institution competes for clerkships/clinical training sites, respondents identified the types of strategies implemented by other schools/programs to secure clerkships/clinical training sites for their students. When asked to select the types of strategies used by other schools or programs (both within and outside their own profession), the majority responded that their competitors pay money for sites (**Figure 11**). Other strategies indicated on the survey included strategic relationship building (e.g., targeting alumni in the area), exclusivity contracts, and other non-financial incentives.

Figure 11. Percent of Respondents Who Reported Competition Strategies Used by Other Professions and Schools within Profession, by Discipline

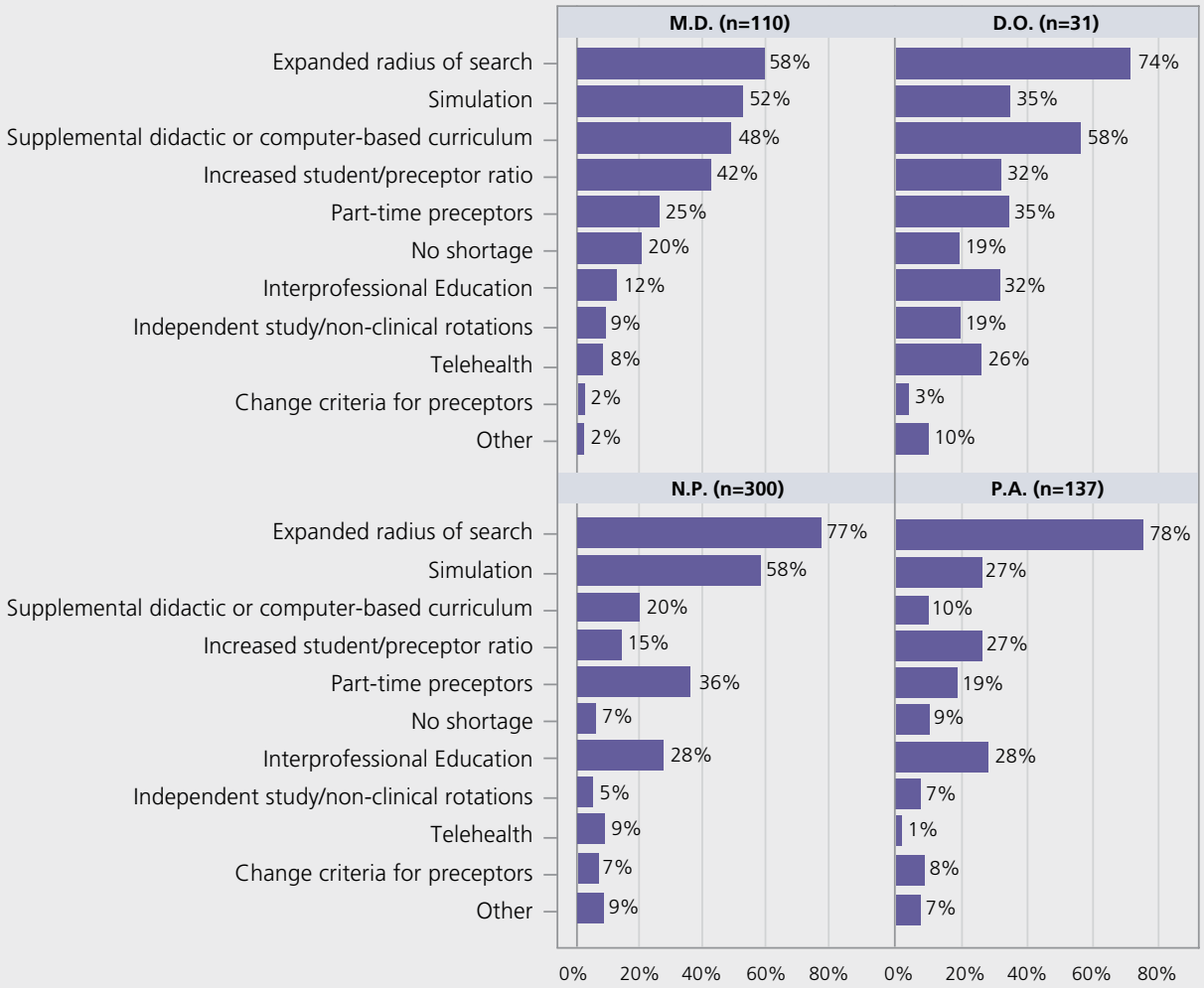


Solutions

Apart from implementing or increasing payment incentives, many institutions have incorporated a variety of alternative practices aimed at addressing shortages in clerkship/clinical training sites and preceptors. In particular, more than half of all M.D. schools and nearly 75 percent of all D.O. schools, N.P. programs, and P.A. programs have expanded the radius of search for sites (**Figure 12**). Additionally, more than half of all respondents from M.D. schools and N.P. programs have adopted simulation (e.g., mannequins, standardized patients, computer generated avatars), and more than half of all D.O. programs have incorporated supplemental didactic or computer-based curricula for students.

The results of the survey indicate that there is general concern about the availability and adequacy of clerkship/clinical training sites across all disciplines and regions. However, not all survey respondents perceived a shortage of sites at their institutions. Nearly one-fifth of all respondents from M.D. and D.O. schools said that there is "no shortage of clerkship/clinical training sites" at their institution. By comparison, less than 10 percent of N.P. and P.A. programs indicated that there is no shortage at their institutions.

Figure 12. Percent of Respondents Who Reported Practices Adopted to Address Shortages in Clerkship/Clinical Training Sites and Preceptors, by Discipline



Summary and Discussion

The results of the 2013 Clerkship Survey indicate that respondents in all four health disciplines feel increasing pressure about the availability and adequacy of clerkship/clinical training sites, particularly for new sites. Nearly every respondent expressed at least one concern regarding the adequacy of current clinical opportunities, and more than 70 percent of respondents indicated that developing new sites is more difficult now than it was two years ago. With the exception of D.O. schools, respondents indicated that the greatest challenges were in procuring primary care preceptors and sites. Despite growth in enrollment in all four disciplines, the strain on the number of clerkship/clinical training sites was widely stated as a limiting factor for enrollment. Additionally, many respondents felt increasing pressure to provide or increase compensation incentives to compete for sites and expand the radius of their search for sites.

While more than 70 percent of respondents said they thought other schools were paying for clerkships, relatively few actually are—at least at the moment. This could be changing, as most indicated there is increased pressure to pay compared with two years ago. There was also wide variation across the disciplines in the percent paying for community-based clerkship sites. D.O. respondents were far more likely to report paying a fee per student than any other discipline. D.O. respondents also reported feeling the highest pressure to increase financial compensation incentives and were the most likely to report competition with other disciplines. For the other three disciplines, results show that the share of respondents who pay for community-based sites was much smaller. For respondents who do pay for community-based sites, the most frequently cited source of funding is reallocated money, though some respondents indicated that they fund sites through increased tuition.

With the exception of D.O. schools, each discipline indicated that it was most competitive with itself. Though other sources report that there is great concern among some disciplines regarding competition from off-shore schools, the number of respondents to the survey who reported off-shore medical schools as a source of competition was relatively low compared to the number of respondents who reported competition with other U.S. schools and programs.

Aside from payment practices, responses to the survey were generally similar between M.D. and D.O. schools and N.P. and P.A. programs, with a few exceptions. D.O. respondents expressed concern regarding the availability of specific specialty sites, while M.D. respondents expressed more concern regarding primary care sites. N.P. and P.A. respondents frequently cited that they compete with each other for clinical training sites, but P.A. respondents also frequently cited that they compete with M.D. and D.O. schools for sites, while N.P. programs were more likely to report competition with other N.P. or APRN programs.

The results of this survey provide valuable insight into the common concerns expressed by these institutions as well as the challenges and practices that are unique to each discipline. However, results may have changed since the survey was administered in March 2013, especially in light of recent health care policy changes and increased media attention on clinical training site shortages and competition from off-shore medical schools. It will be important to continue to monitor the availability of clerkship/clinical training sites, given the number of new schools and programs, record-breaking class sizes, and enrollment growth across the health disciplines. In addition, changes in health care finance and reimbursement and development of new care delivery models will produce new pressures on schools to prepare health professionals to practice in a changing health care environment. The continued collaborative effort of the AAMC, AACOM, AACN, and PAEA to address the concerns of all disciplines will be beneficial in order to promote and support an increasingly interprofessional health care environment rather than a competitive one, starting from students' very first clinical experiences.

Appendix

Key definitions

Clerkship/clinical training: A core or required clinical course/rotation in a specialty that takes place during the third or fourth year of study.

M.D.-granting school: A school that confers the Doctor of Medicine (M.D.) degree and is accredited by the Liaison Committee on Medical Education (LCME).

D.O.-granting school: A school that confers the Doctor of Osteopathic Medicine (D.O.) degree and is accredited by the American Osteopathic Association Commission on Osteopathic College Accreditation (COCA).

Advanced practice registered nurse (APRN) program: A graduate program that falls into one of the following four categories: Nurse Practitioner (N.P.), Clinical Nurse Specialist (CNS), Certified Nurse-Midwife (CNM), or Certified Registered Nurse Anesthetist (CRNA).

Nurse practitioner program: An accredited graduate APRN program that awards a master's, post-master's, or doctorate degree that prepares students for national N.P. certification.

Physician assistant program: A graduate program that prepares students for national certification and state licensure as a physician assistant and is accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA).

Commonly used acronyms

AACN: American Association of Colleges of Nursing
AACOM: American Association of Colleges of Osteopathic Medicine
AAMC: Association of American Medical Colleges
APRN: Advanced Practice Registered Nurse
D.O.: Doctor of Osteopathic Medicine
M.D.: Doctor of Medicine
N.P.: Nurse Practitioner
P.A.: Physician Assistant
PAEA: Physician Assistant Education Association