A Mixed-Methods Study of Teaching Health Center Residents’ Experiences of Mentorship, Career Planning, and Post-Residency Practice Environments

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Disclaimers: The opinions expressed are those of the authors and not necessarily those of the Health Resources and Services Administration or the Department of Health and Human Services.

Data: We used data from the 2018 American Medical Association Masterfile and had permission to do so; no additional review of the data was required.
Abstract

Purpose

The Teaching Health Center (THC) Graduate Medical Education program enables primary care physicians to train in community-based, underserved settings by shifting the payment structure and training environment for graduate medical education. To understand how THCs have successfully trained primary care physicians who practice in community-based settings, the authors conducted a mixed methods exploratory study to examine THC residency graduates’ experiences of mentorship and career planning during their residencies, perceptions of preparation for post-residency practice, and how these experiences were related to post-residency practice environments.

Method

Surveys were conducted for all 804 graduating THC residents nationally, 2014–2017 (533, 66% response rate). Three quantitative outcomes were measured: graduates’ perceptions of preparation for practice after residency (Likert scale), satisfaction with mentorship and career planning (Likert scale), and characteristics of post-residency practice environment (open ended). A qualitative analysis of open-text survey answers, using thematic content analysis, was also conducted.

Results

Most THC graduates (68%) were satisfied with their mentorship and career planning experience, and generally felt prepared for post-residency practice in multiple settings (78%–93%). Of the 533 THC graduates who provided information about their practice environment, 445 (84%) were practicing in primary care; nationally, 64% of physicians who completed primary care residencies practiced in primary care. Of the 445 THC graduates practicing in primary care, 12%
practiced in rural areas, compared to 7% of all physicians. Just over half of THC graduates (51%) practiced in medically underserved areas, compared to 39% of all physicians.

Conclusions

This study offers early evidence that the THC model produces and retains primary care physicians who are well prepared to practice in underserved areas. Given these promising findings, there appears to be a substantial benefit to growing the THC program. However, the program continues to face uncertainty around ongoing, stable funding.
In a dynamic and uncertain health care environment, there is a longstanding and enduring need to grow the primary care workforce and to place doctors where people need them the most. The Teaching Health Center Graduate Medical Education (THCGME) program seeks to meet this need by improving access to well-trained primary care providers in community-based rural and underserved settings.

Physicians who complete their residency training in underserved and community-based settings are more likely to practice in these environments in the future.\textsuperscript{1-4} Similarly, exposure to positive primary care experiences, role models, and mentors during training increases physicians’ likelihood of pursuing a career in primary care.\textsuperscript{5-8} Further, residents who train in high-quality community-based settings demonstrate improved content knowledge, diagnostic pattern recognition, and clinical skills in primary care.\textsuperscript{9} Yet most primary care residency training occurs in hospital-based settings that promote specialization over general primary care\textsuperscript{10-13} and provide limited exposure to community-based care or mentors who encourage careers in primary care.\textsuperscript{14} Created through Section 5508 of the Affordable Care Act\textsuperscript{15} and administered through the Health Resources and Service Administration (HRSA), the THCGME program\textsuperscript{16} requires residency sponsors—known as Teaching Health Centers (THCs)—to be either a community-based ambulatory patient care center or a consortium with a community-based ambulatory patient care center as a primary partner. THCs are unique in that they shift graduate medical education (GME) payments directly to community-based organizations. Hospitals and medical schools are not eligible to apply for THC funds. In contrast, Medicare GME payments are highly linked to hospitals, with the larger of 2 payment formulas calculated as an add-on to the inpatient prospective payment system.\textsuperscript{17} As a result, hospitals have largely been in control of the mission of residency training.
Residents at THCs must meet all the same didactic and practical requirements as residents in hospital-based settings do, but also have increased exposure to providing care in outpatient settings as well as mentorship from providers who practice in these settings themselves. Previous research suggests that mentorship and guidance from faculty play a substantial role in a resident’s career plans, including career selection and advancement. The presence of a mentor is associated with higher satisfaction in a residency program, increased self-efficacy related to professional development, and increased job continuity. Thus, mentorship is a key component of the specialty choice process.

While residency in hospital settings has been studied previously, less is known about mentorship and post-residency practice in the THC setting. We conducted a mixed methods exploratory study to understand how THCs have been successful in training primary care physicians who practice in community-based and underserved settings. Previous research has described the THC program, including costs of training THC residents and residents’ intentions to practice in primary care. To our knowledge, no research to date has examined THC residency graduates’ experiences of mentorship and career planning during the course of their residency, perceptions of preparation for post-residency practice, and how these experiences are related to post-residency practice environments. This study examined practice outcomes of THC-trained residents and explored whether THC-trained residents would report positive mentorship experiences and encouragement to pursue careers in primary care and underserved settings. Additionally, we examined graduates’ self-reported preparation for post-residency practice to identify any potential gaps in training that need to be addressed. We hypothesized that THC graduates would be more likely to practice in rural and underserved settings compared to other residency graduates, and our primary proposition was that THC graduates would have positive
experiences with mentorship and career planning that played a role in guiding these physicians into practicing in primary care specialties and in rural and underserved settings.

**Method**

We conducted surveys of all graduating THC residents from 2014 through 2017. The study team developed the survey instrument based on a review of the THCGME program requirements, HRSA-designated THCGME program evaluation questions, and residency accreditation documents provided by the THCs. The survey instrument included both multiple choice questions and open-ended text questions and was pilot tested with 9 THCs during in-person site visits and then revised to account for THC program feedback before being distributed nationally to all graduating residents from each THC.

Each year from 2014 and 2017, we sent a survey via email to residency directors/coordinators or other designated institutional officers at 46 residency programs that had graduates between 2014 and 2017 and conducted follow-up phone calls to increase the response rate. A total of 804 graduates were asked to participate in the survey. The Office of Management and Budget approved the surveys and administration strategy, and the George Washington University Office of Human Research Institutional Review Board deemed the study protocol to be exempt from review. The survey was composed of 2 portions: an identified portion, which contained questions that could be connected to graduates’ names and programs, and a de-identified portion, which cannot be connected to graduates’ names or programs in order to promote candid answers on questions about residency experience and preparation. Graduates consented to answering the identified and de-identified portions of the survey independently. The de-identified and identified survey instrument files are available in Supplemental Digital Appendices 1 and 2, at http://links.lww.com/ACADMED/B187 and http://links.lww.com/ACADMED/B188.
In the quantitative analysis, we focused on 3 outcomes: graduates’ perceptions of preparation for practice after residency (Likert scale), satisfaction with mentorship and career planning (Likert scale), and characteristics of post-residency practice environment. For the Likert scale items, we combined “agree” with “strongly agree” and “disagree” with “strongly disagree” to define responses as “agree” and “disagree,” respectively; similarly, we combined “satisfied” with “very satisfied” and “dissatisfied” with “very dissatisfied” to define these as “satisfied” and “dissatisfied,” respectively. We then calculated percentages of responses in each category, as well as in the “neutral” category for each question.

For post-residency practice environment, we calculated the number and percentage of graduates from these categories: practicing in primary care, practicing in a rural setting, practicing in a Health Professional Shortage Area/Medically Underserved Area (HPSA/MUA), treating Medicaid patients, and treating uninsured patients. We defined primary care practice to include family medicine, internal medicine, pediatrics, obstetrics–gynecology, and psychiatry. We compared these percentages to national averages. National estimates of practicing in primary care were made using the 2018 American Medical Association (AMA) Masterfile; national estimates for practice in an HPSA/MUA were geocoded by the Graham Center and calculated using the 2018 AMA Masterfile. To increase the validity of the graduates’ self-report of rural practice, we cross-referenced the self-reported answers with the categorization of residents’ principal practice sites using RUCA (Rural-Urban Commuting Area) codes; we classified any non-metropolitan sites (micropolitan, small town, and rural) as rural. National estimates are for active medical physicians under the age of 70 that are in primary care specialties using the same definition for rural practice. We used results published in a 2017 AMA report that included the percentage of physicians treating patients by type of insurance and specialty, and then
calculated the mean value using percentages of family medicine, internal medicine, pediatrics, obstetrics–gynecology, and psychiatry treating Medicaid and uninsured patients for national comparisons of patient populations.

We also conducted a qualitative analysis of 4 open-text survey answers, using thematic content analysis. The primary open-text question of interest asked residents to describe the career planning/mentorship provided by their residency program; we also included content from other questions when relevant, namely, those asking about general strengths, areas of improvement, and additional comments. A conceptual framework was not appropriate for this type of analysis, and we therefore relied on an inductive open coding process, using Microsoft Excel 2018 software (Microsoft Corporation, Redmond, WA). We coded for both common experiences (i.e., typical responses) and unique experiences (i.e., atypical responses), and then grouped codes into general themes. Themes were classified as major if they were related to the research questions of interest (e.g., faculty advisor support) and minor if they were outside of the scope of this analysis (e.g., friendly work environment). Three members of the research team (J.H.S., M.M.J., M.R.) reviewed the themes and resolved any discrepancies through discussion until consensus was reached. In this analysis, we present key themes and illustrative quotes from open-text answers.

Results

In total, 563 of 804 graduates of THC residencies from 2014 through 2017 participated in the graduate survey, for a response rate of 70%; quantitative analyses are based on these respondents. For quantitative analysis, we report information only on the 533 residents who responded to the survey and provided information about practice environment (66% of all graduates). Because demographic data were not available, we compared respondents and nonrespondents on specialty distribution and found no statistically significant differences. For
the qualitative analysis, 447 graduates responded to the primary open-text survey question of interest about career planning and mentorships. We also included content from other questions when relevant, including ones about strengths (531 responses), weaknesses (468 responses), or other general comments (85 responses) about the residency programs.

**Mentorship, career planning, and preparation for post-residency practice**

On average, THC graduates were satisfied with their mentorship and career planning experience. Sixty-nine percent (n = 379) of the 552 graduates who answered this question reported being satisfied with their experience. Another 22% (n = 121) report feeling neutral about their experience. Fewer than 10% of graduates (n = 52) reported being dissatisfied with their experience.

THC graduates also felt prepared for post-residency practice in all 4 settings included on the survey. Eighty percent of graduates (n = 443) agreed that they are prepared for practice in inpatient settings, and 92% (n = 513) agreed that they are prepared for practice in outpatient settings. Of particular relevance for the THC program, 93% (n = 517) agreed that they are prepared for practice in underserved settings, and 78% (n = 434) agreed that they are prepared for practice in rural settings. A very small proportion of graduates reported feeling unprepared for post-graduate practice. The setting with the highest proportions of “disagree” was inpatient practice (10%, n = 51).

In combination with the Likert scale questions, open-text answers provided more information about mentorship, career planning, and preparation for post-residency practice (see Table 1). One key theme for all 3 areas was faculty members serving as role models for careers in underserved settings. Many residents felt that program’s faculty was an overall strength of their program and described faculty as “supportive,” “dedicated,” “responsive,” “approachable,” “knowledgeable,”
“passionate,” “committed,” “diverse,” “engaged,” and “strong.” These perceptions of faculty members may have contributed to residents’ satisfaction with the program overall, as well as with mentoring, career planning, and preparation for practice.

Two additional themes comprising the mentorship experience were formal career planning by a mentor/advisor and informal mentorship. Residents described having one or multiple mentors, and some mentioned training in specific technical aspects of future practice such as billing and coding. Residents also experienced mentorship and career planning from peers, recent program graduates, or other non-faculty advisors such as “big brothers”/“big sisters.” Mentorship other than by faculty members, whether formal or informal, seemed to provide a useful perspective for these residents on their career planning post-residency.

For preparation for post-residency practice, key themes that emerged were training in multiple settings and preparation for primary care. Many residents felt that their training in community-based settings was a particular strength of the THC program. Others mentioned the combination of inpatient and outpatient, as well as urban and rural, settings. In addition to feeling prepared for various settings, residents also described feeling prepared and motivated to practice in primary care.

A minority of residents reported dissatisfaction with their career planning or reported no/minimal guidance. Some graduates reported formal but less individualized experiences, including attending lectures, practice management courses, or career fairs; some, however, described having to reach out on their own to conduct their own career planning. Some responded “none,” “limited,” or “minimal” to the survey question and did not provide additional details. As the majority of residents felt prepared for post-graduate practice, there were relatively few areas for improvement. These included more academic rigor and increased training on specific procedures
or specialties.

Post-residency practice outcomes

Primary care. Of the 533 graduates (498 physicians and 35 dentists) who took the survey and provided information about practice environment, 445 (84%) of THC graduates were practicing in primary care after completing their residency training (see Table 2). This proportion is a substantially higher share than at the national level, where 64% (332,382 of 517,895) of physicians who completed primary care residencies practice in primary care; this difference is statistically significant ($P < .01$). For internal medicine in particular, which is known to have high rates of subspecialization, 64% of THC graduates (64 of 100) were practicing in primary care, compared to 46% (102,783 of 222,365) of all physicians ($P < .01$). The proportion practicing in primary care was highest in family medicine, although it is worth noting that there was no difference in the proportions for THC (328 of 375 THC graduates, or 88%) and other physicians (103,819 of 117,391 of all physicians, or 88%).

Rural and underserved practice. Of the 445 THC graduates who were practicing in primary care, 12% (53 of 445) were practicing in rural areas, compared to 7% of all physicians (23,360 of 332,284). Just over half of THC graduates (51%, or 227 of 445) were practicing in a HPSA/MUA, compared to 39% of all physicians (129,591 of 332,284). Finally, a larger proportion of THC graduates practicing in primary care treated either Medicaid patients (92%, or 409 of 445) or uninsured patients (88%, or 392 of 445) than all primary care physicians (81%, of 1,318 of 1,627 treating Medicaid patients, and 77%, or 1,237 of 1,627 treating uninsured patients). All of these findings are statistically significant ($P < .01$).
Discussion

This mixed methods study presents early findings that THCs have provided supportive mentorship experiences and rewarding primary care training experiences that encourage practice in primary care. Furthermore, THCs have produced graduates who practice in primary care, rural areas, and HPSAs/MUAs in larger proportions than other physicians across the United States. Additionally, THC graduates reported feeling well prepared for practicing across inpatient, outpatient, underserved, and rural settings. Given the focus of the THC model, it is especially notable that graduates reported being motivated and supported to remain in primary care.

Residents also reported satisfaction with their mentorship experiences, which is important for career outcomes, and is reflected in their post-residency practice outcomes. Our findings also demonstrate that THC graduating residents were generally satisfied with their mentorship and career planning experiences. Some THC residents described productive and supportive relationships with teaching faculty, including some with assigned advisors or mentors, and many viewed faculty members as career role models who had chosen a career in primary care, underserved settings. These findings support the idea that exposure to a positive residency experience, including a positive mentorship experience, is associated with a higher likelihood of pursuing careers in primary care in outpatient setting. This type of mentorship appears to be readily available in the THC setting but might not be as available in non-THC settings.

The career outcomes of the THC residents demonstrate a higher rate of remaining in primary care and in practicing in rural and underserved areas than U.S. physicians overall. The THC internal medicine primary care outcomes—64% reporting primary care practice—is particularly noteworthy as recent studies have shown only 22% of graduating internal medicine residents report intent to remain in general internal medicine. Even in primary care internal medicine
programs, only 40% reported intent to stay in primary care. A similar improvement was not seen in family medicine; however, this finding may be related to the already high rate of primary care retention. In addition to staying in primary care, THC graduates were more likely to stay in rural or underserved settings, which may be due in part to their satisfaction with training focused on the outpatient setting. More recent reports from the THC program document the rising proportion of graduates staying in underserved settings; in academic year 2018–2019, 55% of graduates were practicing in rural or underserved settings. Future studies should continue to examine these outcomes for THC residents, especially in comparison to the general physician population.

Importantly, residents from the THC model of training reported feeling well prepared for practice, both in outpatient and inpatient settings. However, it is worth noting that 10% of THC graduates expressed some concern about the adequacy of preparation for inpatient care, pointing to an opportunity for improvement. Without a direct comparison group, it is difficult to say if this proportion would be comparable among those in a traditional primary care residency program feeling unprepared for outpatient care. Our findings support existing research showing that internal medicine residents, who are more exposed to inpatient training, report feeling very prepared to treat inpatient conditions, while family practice residents, who are more exposed to outpatient conditions, report feeling very prepared to treat outpatient conditions. Even without a direct comparison figure, it is still significant to note that the vast majority of residents felt prepared to work in underserved settings after residency, as developing the careers of primary care physicians in underserved settings is a touchstone of the THC program. Future research should examine residents’ perceptions of preparation for practice, both within the THC program and in traditional residency programs.
This study offers early evidence that the THC model produces and retains primary care physicians who are well prepared to practice in underserved areas. Given the shortage of primary care physicians and the challenges with their recruitment and retention in underserved areas, it is especially important to develop strong career plans among this population, and to continue to measure post-residency practice patterns. Additionally, examining the quality of care by THC graduates in different settings will be important as the program’s graduates continue to build more years of practice. Existing evidence finds that residents trained in more cost-efficient areas such as the THC settings continue to practice in more cost-efficient ways without a quality trade-off, and they may even provide better, more cost-efficient care in underserved settings given this specialized training. Future analysis should examine cost savings (e.g., due to preventable hospitalizations) for THC graduates compared to other physicians, further building the case for the effectiveness of the THC program.

Limitations

A few limitations in this study are worth noting. First, not all residents in all years answered the survey, so it is possible that nonrespondents had different experiences than responding residents, whether good or bad. However, with an overall response rate of 70% for all questions (66% for practice environments), we were able to capture the experiences of a large proportion of these residents. In addition, all responses provided are through self-report, which can result in respondent bias. However, as the focus of this analysis is the residents’ own perceptions of their experiences, self-report is the best tool to understand this phenomenon. A further limitation is the lack of a comparison group. Although the majority of graduates reported feeling well prepared, these are self-perceptions and cannot be measured by external criteria for quality of care. Additional research is needed to understand the relationship between community-based training
and access, quality, and cost of care.

Conclusions

In challenging practice settings, such as those targeted by the THC program, it is particularly important to help prepare physicians to remain in these settings and to navigate the specific challenges of this type of medical practice. Given our promising findings, there appears to be a substantial benefit to growing the THC program. However, the greatest threat to the program has been uncertainty around ongoing and stable funding. In 2015, Affordable Care Act-related funding for the THC program ended, and the program became subject to short-term budget appropriations determined by Congress. The recent American Rescue Plan\textsuperscript{35} provided $330 million for the THCGME program, demonstrating some support for this model of residency; however, this type of funding continues to be challenging because it only lasts for two years, which is shorter than most primary care residency programs. While the program is targeted to address long-term health workforce priorities, it has received only short-term bursts of funding. Ensuring the continuity of the program by including it as part of a long-term or permanent funding stream has the potential to address longstanding workforce challenges in settings with high need.
References


17. Chen C, Chung Y, Petterson S, Bazemore A. Changes and variation in Medicare graduate


### Table 1

**Key Themes and Representative Quotations for Career Planning, Mentorship, and Preparation for Post-Residency Practice, From a National Study of Teaching Health Center Residents, 2014–2017**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Representative quotation</th>
</tr>
</thead>
</table>
| Faculty as role models for future practice | ● The faculty have been a strength because not only are they dedicated to teaching, but because they have chosen careers in community health, they are leaders and active members of their community who provide guidance and mentorship in pursuing careers in community health and primary care.  
● One of the strongest sources of mentorship are the faculty, because they are practicing in community health and plotted their careers in this field. They serve as invaluable mentors because so many sources/resources that currently exist in the medical education world simply do not match the reality or have not “caught up” with things that are happening on the ground in primary care, specifically with respect to career opportunities. |
| Formal advisor/mentor for career plans     | ● Residency assigns a faculty advisor that guides and mentors the resident. Faculty reach out to residents to offer assistance in career planning and mentoring at least that was my experience. My final interest for practice location after residency was born of my discussion with a mentoring faculty whom I really connected with during residency. This, however, happened late in my third year. I wish residency provided more structured career planning.  
● From day 1 till the very end of my residency my program has walked me through every step of how to begin a new career in medicine. My program mentored me regarding how to run a practice effectively, how to chose [sic] the right career in medicine, rehearsed us through appropriate billing and coding sessions, trained about EMR, etc. |
| Informal/peer mentorship                   | ● Faculty advisor assigned to each resident as well as big brothers/sisters. There are plans to establish a resident alumni association in the future. Otherwise, we sometimes had didactics from professionals like financial advisors, etc.  
● Faculty advisor (formally), general willingness by faculty and preceptors to help explore interests (informally). |
<table>
<thead>
<tr>
<th>Training in multiple settings to prepare for practice in multiple settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Community-based training environment fosters development and growth as a primary care physician in ways that cannot be replicated anywhere else. One has to be in this environment to gain this experience, it cannot be taught in books or conferences or through electives. Having the entire residency track set on the foundation of a community health center has been a core strength of this program. During my interviews and search for a position, I felt right at home at any of the community health institutions and organizations I sought employment with.</td>
</tr>
<tr>
<td>● Working in a variety of settings prepares one for a practice in any of them—rural, urban, suburban, underserved, or resource-full.</td>
</tr>
<tr>
<td>● Great training in inpatient as well as outpatient family medicine. Focus on underserved care is emphasized. Faculty is up to date on evidence-based practices, and fosters a safe learning environment.</td>
</tr>
<tr>
<td>Preparation for primary care</td>
</tr>
<tr>
<td>● Great motivation and training for residents to choose primary care.</td>
</tr>
<tr>
<td>● Very strong base for primary care. Great motivation and training for residents to choose primary care.</td>
</tr>
<tr>
<td>Areas of improvement</td>
</tr>
<tr>
<td>● A more academically rigorous curriculum, with emphasis on stronger didactic training, would better prepare residents for practicing up to date medicine.</td>
</tr>
<tr>
<td>● I think I’ve been well-prepared for a career as a family physician by my residency, so this is difficult to say, but if I had to choose a few things: 1. More outpatient pediatrics 2. More inpatient procedures (paracentesis, thoracentesis) 3. More obstetrics (though we get a fair amount).</td>
</tr>
<tr>
<td>● No [career planning] that was already set up. But when I asked individual faculty, they were willing to talk about it, so that was very appreciated. As mentioned before, I’ve often thought this year that such mentorship would be very helpful as I struggled myself in the process of securing a job. I am outgoing and vocal, so I asked a lot of people questions and advice, but I’ve wondered how the process would be like for someone who is more reserved.</td>
</tr>
<tr>
<td>● Met lots of people who were willing to discuss their career paths and provide guidance. Program director very responsive to introducing residents to mentors. However, very little concrete career planning advice provided, which is an area for improvement.</td>
</tr>
</tbody>
</table>

Abbreviation: EMR, electronic medical record.
Table 2

Health Workforce Outcomes of 533 Teaching Health Center-Trained Physicians and Dentists Compared to the General U.S. Physician Workforce, From a National Study of Teaching Health Center Residents, 2014–2017

<table>
<thead>
<tr>
<th>Practice characteristics of physicians who completed primary care residency</th>
<th>THC-trained physicians and dentists</th>
<th>All U.S. physicians</th>
<th>No. (%) THC-trained physicians and dentists</th>
<th>No. (%) all U.S. physicians</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no.</td>
<td>533</td>
<td>517,895</td>
<td>445 (84)</td>
<td>332,284 (64)</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Practice characteristics of primary care physicians</td>
<td>445</td>
<td>332,284</td>
<td>53 (12)</td>
<td>23,260 (7)</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Family medicine</td>
<td>375</td>
<td>117,391</td>
<td>328 (88)</td>
<td>103,819 (88)</td>
<td>.56</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>100</td>
<td>222,365</td>
<td>64 (64)</td>
<td>102,783 (46)</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Pediatrics, obstetrics–gynecology, psychiatry</td>
<td>23</td>
<td>171,281</td>
<td>19 (83)</td>
<td>119,343 (70)</td>
<td>.18</td>
</tr>
</tbody>
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<tr>
<th>Practice in a HPSA/MUA</th>
<th>--</th>
<th>--</th>
<th>227 (51)</th>
<th>129,591 (39)</th>
<th>&lt; .01</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient population of primary care physicians</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>445</td>
<td>1,627(^c)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treat any Medicaid patients</td>
<td>--</td>
<td>--</td>
<td>409 (92)</td>
<td>1,318 (81)</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Treat any uninsured patients</td>
<td>--</td>
<td>--</td>
<td>392 (88)</td>
<td>1,237 (76)</td>
<td>&lt; .01</td>
</tr>
</tbody>
</table>

Abbreviations: THC, Teaching Health Center; HPSA/MUA, Health Professional Shortage Area/Medically Underserved Area; AMA, American Medical Association.

\(^a\)Source: THC evaluation survey data.

\(^b\)Source: 2018 Masterfile.\(^27\)

\(^c\)Chi-squared tests comparing distributions between THC-trained physicians and dentists and all US physicians. Statistically significant findings at \(P < .05\) shown in bold.

\(^d\)Source: 2018 AMA Masterfile\(^27\) and Graham Center analysis [available from the authors on request].

\(^e\)Source: Authors’ analysis of Figure 4 from Gillis report on 2016 AMA Benchmark Survey.\(^29\)