

**Medical Student Education**

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## Family Medicine Community Preceptors: Different From Other Physician Specialties?

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**Background and Objectives:** Few studies address the satisfaction of community preceptors in different specializations. This study compares preceptor satisfaction of family physicians with other physician specialties. **Methods:** All 1,221 physician preceptors in a statewide system received surveys by mail. **Results:** Almost 67% returned questionnaires. The group consisted of 46% family physicians, 22% internists, 20% pediatricians, and 12% physicians in other specialties. The majority reported high levels of satisfaction with precepting (94.4%), incentives (53.3%), and professional life (91.6%). Significantly more family physicians and pediatricians than physicians in other specialties felt that having students had a more negative influence on patient flow (54.4% and 53.5%), and family physicians were more likely to indicate that precepting students increased their working hours. Family physicians more often reported that helping recruit for their specialty was an important factor in their decision to teach (32.8%). Family physicians placed more importance on receiving continuing medical education credit for teaching and less value on academic appointments, and they were also less satisfied with their incomes. **Conclusions:** Family medicine community physician preceptors have some differing needs and motivations than other physician specialties. With the increased demand for preceptors, it is important to tailor support to meet individual preceptor needs.

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Community-based preceptors provide a large portion of the primary care education for medical students in the United States. Requirements for increased productivity and reduced reimbursement by third-party payers have placed additional burdens on these preceptors. The Association of American Medical Colleges recently called for a 30% increase in medical school enrollment by 2015 to meet the growing physician shortage in the United States.<sup>1</sup> They cite several reasons for this expansion, such as the increase in size and age of the US population, as well as the aging of the physician workforce.<sup>2-5</sup> All these factors will place more demands on physicians who teach and increase the need for preceptors.

To meet the current and future demand for preceptors, the positive aspects of teaching students must outweigh the burdens. Of the studies that have addressed community preceptors' satisfaction, retention, and rewards and incentives, few were multidisciplinary regarding physician specialty.<sup>6-16</sup> Objectives of these studies also varied slightly. Only one measured responses among specialties of family physicians, internists, pediatricians, and obstetrician-gynecologists, but that study included less than 100 active preceptors and had only a 46% response rate.<sup>10</sup>

The objective of our statewide study was to compare satisfaction of family physician preceptors with satisfaction of other primary care physicians in the fields of internal medicine, pediatrics, and obstetrics-gynecology. Specifically, we sought to determine each group's satisfaction as a community preceptor, their likelihood of continuing as a preceptor in the next 5 years, the influence of having students in their practice, their motivation for teaching, the satisfaction with and value placed on rewards/incentives, and their degree of satisfaction with professional life. Similar results by

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degree groups (physicians, pharmacists, nurse practitioners, and physician assistants) have been previously reported.<sup>17</sup>

## Methods

### *Samples and Procedures*

We mailed surveys to all 1,221 community physicians in a statewide system of predominantly primary care preceptors. These preceptors receive support services from regional offices associated with each of North Carolina's Area Health Education Centers (AHECs). The regional staff coordinates clinical experiences and housing for students and organizes local educational programs for preceptors.

The original mail packet included the survey, a personalized cover letter, and a self-addressed stamped envelope (SASE). To increase response rate, we held a random drawing for one of four weekend get-away packages. Three weeks after the first mailing, a second letter, survey, and SASE were mailed to nonresponding preceptors. Three weeks after the second mailing, the remaining preceptors received a final appeal and a copy of the survey by fax.

### *Survey Design*

We designed a four-page, 24-item survey to measure the following areas: the overall degree of satisfaction with precepting, likelihood of continuing as a community preceptor in the next 5 years, the influence of teaching students on their practice,<sup>10,16</sup> reasons for teaching students,<sup>7,15,16</sup> satisfaction with and value placed on incentives,<sup>7,16,18</sup> and satisfaction with professional life.<sup>3,7,18-21</sup> Preceptors responded on a 5-point Likert scale. Information was also collected on preceptor and practice demographics and type of students. Two physician focus groups pretested the questionnaire before the final revision. The survey then received approval by our Institutional Review Board.

### *Data Analysis*

Summary statistics were calculated on all variables. Physicians were divided into four categories: family medicine (FM), internal medicine (IM), pediatrics (PED) and other (O). The other group consisted of 51 obstetrician-gynecologists. The remaining 47 physicians in that group were surgeons, emergency medicine physicians, pulmonologists, cardiologists, oncologists, urologists, neurologists, infectious disease specialists, and gastroenterologists.

Analyses were conducted using Chi-square for categorical variables (correcting for continuity in 2x2 tables) and *t* tests for continuous data. We used SPSS 13.0 for Windows and set significance level at  $P \leq .05$ .

## Results

### *Response Rate*

Of the 1,221 statewide physicians surveyed, 817 (66%) returned questionnaires (817/1,221). Prior to receiving participants' responses, only the preceptor's name, degree, and AHEC affiliation were known. Using preceptors' first names to determine the gender of nonrespondents, we calculated that preceptors who completed and returned the questionnaire did not differ from nonrespondents in gender. They also did not differ by AHEC affiliation.

### *Demographics*

The responding physicians included 46% FM, 22% IM, 20% PED, and 12% O. Demographics for each physician group are shown in Table 1. Some differences existed among the groups. FM physicians were more likely to practice in rural settings, while IM and O physicians were more likely to practice in urban areas and work more hours per week. More than 37% of pediatricians were female.

### *Satisfaction of Preceptors*

All physicians, regardless of specialty, responded similarly to the four main survey questions. A majority of physicians (745/789 or 94.4%) indicated they were "satisfied" to "very satisfied" with their experience as a community-based preceptor. Most respondents (737/809 or 91.1%) also reported that they would "probably" or "definitely" continue as a preceptor over the next 5 years. A majority of physicians (436/789 or 55.3%) reported being "satisfied" or "very satisfied" with incentives they receive as a preceptor. When asked about degree of satisfaction with professional life, almost all (718/784 or 91.6%) said they were "satisfied" to "very satisfied."

Some differences were seen among responses to more specific questions on other issues related to precepting. When asked about the influence of students in their practice, most physicians (83.3%) indicated that having a student had a positive influence on overall job satisfaction. Respondents also reported a positive influence on relationships with patients (57.3%), patient satisfaction (52.8%), and relationships with colleagues and staff (49.6%). In contrast, more than half of FM physicians were likely to respond that students had a negative influence on patient flow and working hours (Table 2). Pediatricians also indicated that students had a negative influence on patient flow. Most preceptors (76.3%) felt that students had "neither a positive nor negative" effect on income and no differences were found for this variable between specialty groups.

### *Reasons for Precepting*

In ranking the importance of intrinsic reasons in their decision to precept students, most physicians (694/817

**Table 1**  
Demographics of Respondents to Preceptor Survey: All Physicians and by Physician Specialty

		<i>Physicians by Specialty</i>					<i>P Value</i>
		<i>All Physicians % (n)</i>	<i>Family Medicine % (n)</i>	<i>Internal Medicine % (n)</i>	<i>Pediatrics % (n)</i>	<i>Other % (n)</i>	
Gender	Male	73.0 (590)	72.0 (270)	81.1 (142)	62.5 (100)	79.6 (78)	.001
	Female	27.0 (218)	28.0 (105)	18.9 (33)	37.5 (60)	20.4 (20)	
Race	Caucasian	81.4 (659)	82.0 (309)	73.1 (128)	85.6 (137)	86.7 (85)	.009
	Non Caucasian	18.6 (151)	18.0 (68)	26.9 (47)	14.4 (23)	13.3 (13)	
Location	Urban	26.2 (205)	18.2 (67)	33.1 (55)	25.0 (38)	46.9 (45)	<.001
	Suburban	35.4 (277)	39.6 (146)	29.5 (49)	37.5 (57)	26.0 (25)	
	Rural	38.4 (301)	42.3 (156)	37.3 (62)	37.5 (57)	27.1 (26)	
<i>Miscellaneous (n = 777)</i>		<i>Mean ± SD*</i>	<i>Mean ± SD</i>	<i>Mean ± SD</i>	<i>Mean ± SD</i>	<i>Mean ± SD</i>	
Age		46.8 ± 9.3	46.3 ± 8.8	47.8 ± 9.8	46.2 ± 9.3	48.2 ± 9.8	.131
Number of years in practice		15.9 ± 9.4	15.6 ± 9.4	16.2 ± 9.5	15.5 ± 9.0	16.7 ± 9.7	.709
Hours worked in typical week		50.0 ± 14.3	50.8 ± 13.6	54.8 ± 13.5	46.8 ± 12.0	55.4 ± 18.3	<.001
Patients seen in typical week		110.9 ± 48.0	111.5 ± 49.3	109.2 ± 51.3	116.8 ± 40.8	101.6 ± 46.9	.115
Weeks per year precepting		10.4 ± 7.1	11.1 ± 7.3	9.3 ± 6.1	10.0 ± 7.5	10.5 ± 7.3	.059
Number of years precepting		12.0 ± 11.3	11.1 ± 10.5	12.8 ± 11.8	12.4 ± 11.9	13.6 ± 11.8	.182

**Table 2**  
Comparison of Preceptors by Physician Specialty Who Indicated a Negative or Very Negative Effect of Students

		<i>Physicians by Specialty</i>					<i>P Value</i>
		<i>All Physicians n=816 % (n)*</i>	<i>Family Medicine n=376 % (n)*</i>	<i>Internal Medicine n=174 % (n)*</i>	<i>Pediatrics n=159 % (n)*</i>	<i>Other n=98 % (n)*</i>	
Practice Areas**	Patient flow	47.8 (385)	54.4 (204)	37.8 (65)	53.5 (84)	32.3 (31)	<.001
	Working hours	41.0 (333)	50.5 (190)	37.8 (65)	35.2 (56)	22.4 (22)	<.001

\* Percentages are based on actual number of responses per item.

\*\* Survey list also included overall job satisfaction, relationship with colleagues, relationship with patients, patient satisfaction, and income and benefits. There were no differences among physician specialties for these areas.

or 85%) gave greatest importance to enjoyment of teaching. In addition, physicians also cited as important demonstrating community practice to students (682/816 or 83.6%), giving something back to their profession (635/816 or 77.8%), intellectual stimulation (626/817 or 76.6%), and being a role model (578/816 or 70%). FM physicians placed significantly more importance on helping recruit for their specialty than other physician groups (32.8% FM versus 22.4% IM, 17.0% PED, 16.7% O,  $P<.001$ ). In addition, more than half of internists and pediatricians placed great importance on keeping their knowledge up to date as motivation for teaching students, while fewer than half of FM and O cited this reason (54.0% IM and 51.9% PED versus 39.8% FM and 35.7% O,  $P=.002$ ).

As a group, physicians valued most the following incentives: receiving Category II Continuing Medical Education (CME) credit for teaching, no-cost access to online library resources, academic appointment at university, and continuing education programs on clinical topics (Table 3). FM physicians placed more importance than other physicians on Category II CME credit for teaching and less value on academic appointments. Financial compensation ranked fifth on the list of valued incentives. (Currently, North Carolina preceptors receive \$112.50 per student week).

*Overall Professional Satisfaction*

Physicians reported high levels of overall satisfaction with their professional lives and responded similarly to questions involving specific aspects of their profes-

sional practice. A total of 710 (88%) reported “great” to “very great” satisfaction with their relationships with patients, 621 (77%) reported satisfaction with control over clinical decisions, and 486 (60.3%) reported satisfaction with supportiveness of colleagues and staff. Adequate personal time and time to spend with patients were areas of least satisfaction among all physician groups. FM physicians reported significantly less satisfaction with their income than internists or pediatricians (39.5% FM versus 49.1% IM, 52.9% PED,  $P=.016$ ). Internists indicated more satisfaction with the time available to spend with patients (45.7% I versus 37.3% FM, 38.9% PED, 30.9% O,  $P=.033$ ).

**Discussion**

Findings from this study showed that community physician preceptors are not a homogeneous group, a finding that confirms recent other studies.<sup>6,10,11,18,22</sup> It is not surprising that physicians in different specialties vary regarding their reasons for precepting students. FM physicians deal with a wide variety of patients, often with complex problems and psychosocial issues and having a student could easily decrease their patient flow more. It is also possible that FM physicians feel there are more topics they need to teach, which makes their working hours with a student longer than other physician groups. As the number of medical school graduates entering family medicine has been declining, it also makes sense that these physicians would place more importance on recruiting students to their specialty. Lastly, FM physicians’ incomes are

Table 3

Comparison of Preceptors by Physician Specialty Who Placed Great or Very Great Value on Certain Incentives

Incentives	Physicians by Specialty					P Value
	All Physicians n=671 % (n)*	Family Medicine n=341 % (n)*	Internal Medicine n=141 % (n)*	Pediatrics n=126 % (n)*	Other n=63 % (n)*	
Category II CME credit for teaching	47.8 (321)	55.7 (190)	41.1 (58)	42.1 (53)	31.7 (20)	.001
No-cost access to online library resources	32.9 (190)	28.9 (80)	40.5 (53)	33.3 (37)	34.5 (20)	.453
Academic appointment at university	30.5 (167)	22.3 (57)	42.3 (52)	30.9 (34)	41.4 (24)	.001
Continuing education programs on clinical topics	24.6 (134)	19.1 (51)	32.5 (39)	31.1 (32)	22.2 (12)	.055
Financial compensation	14.6 (96)	13.5 (42)	16.8 (25)	17.6 (22)	9.9 (7)	.411

\* Percentages are based on actual number of responses per item.

\*\* Survey list of incentives also included certificate of teaching recognition, faculty development workshops, STFM newsletter (with POEMs), local preceptor newsletter, appreciation dinners, and site visits by university or Area Health Education Center staff. There was no difference between physician groups for these items, and the number of respondents was <20%.

not increasing at the same rate as many other physician groups' incomes, so the effect of students on income could be important.<sup>23</sup>

These additional burdens on FM community preceptors may put them at greater risk for dropout. One possible model to address these concerns could be to decrease the total number of community preceptors and develop "specialized teaching practices" that take students all the time.<sup>24</sup> Outside support of these centers (probably by universities) would allow the preceptor a reduced patient load and therefore more teaching time, while sustaining income and personal time.

Our study also reconfirms that intrinsic rewards are the primary reasons for teaching students.<sup>8,11-13,15,18</sup> Developing creative opportunities for physicians to cultivate the intrinsic motivation for teaching may enhance their satisfaction and retention as preceptors.<sup>22</sup> One way is to provide a setting in which health care providers can rediscover and nurture the meaning of their work in groups like Naomi Remen's "Finding Meaning in Medicine."<sup>25</sup> Additionally, family physicians did identify recruitment as an important reason for teaching. This coincides with the American Academy of Family Physicians' (AAFP) recent challenge for departments of family medicine to expand their efforts to increase student interest in the specialty.<sup>26</sup> Perhaps future AAFP initiatives could focus on encouraging more members to become advocates for their specialty by being mentors or community preceptors.<sup>27</sup>

Although our study confirms the findings of other research, there are some differences between our study and others. Single<sup>10</sup> found that family physicians rated all incentives significantly higher than gynecologists, pediatricians, and internists. When examining each of the incentives separately, Single found that family physicians rated Category II CME credit and financial compensation higher than other groups of doctors. Our study found that family physicians only preferred the CME credit more than other specialties. This might reflect the greater awareness of family physicians for this incentive. Targeting support specifically for physicians is one strategy for retention. For instance, CME programs to teach physicians how to obtain 0.5 CME credit for documenting an answer to a clinical question or how to use evidence-based resources at point of care would be of particular use and appeal to physicians.<sup>28</sup>

### Limitations

Our AHEC system offers a decentralized university-type support. This highly developed infrastructure for local preceptors is not found in many states and may contribute to the higher levels of satisfaction reported by our group of preceptors. This limits generalizability. Conversely, because this support is available to all groups of physicians in this study, it is possible to compare results among the physician groups. Our study

also eliminates the potentially confounding factors of location and health care climate because it compares more than one specialty in the same region.

### Conclusions

With the increased demand for preceptors, it is important for us to be able to retain our present preceptors and recruit new ones. We need to be proactive and even consider other models before a crisis emerges. Future statewide or regional studies with large response rates are needed to better understand areas of physician preceptor satisfaction, drop-out rates, and differences among physician groups.

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The overall study results have been reported as a poster at the 2006 Society of Teachers of Family Medicine (STFM) Predoctoral Education Conference, Charleston, SC; as a research presentation at the 2006 STFM Annual Spring Conference, San Francisco; and as a research presentation at the 2006 National AHEC Conference, Omaha.

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### REFERENCES

1. Association of American Medical Colleges. Press release: Washington, DC. June 19, 2006. [www.aamc.org/newsroom/pressrel/2006/060619.htm](http://www.aamc.org/newsroom/pressrel/2006/060619.htm). Accessed May 9, 2007.
2. Association of American Medical Colleges. The physician workforce: position statement. Washington, DC: Association of American Medical Colleges, 2005.
3. Benjamin GC. Viewpoint: We must strengthen our public health workforce. AAMC Reporter. [www.aamc.org/newsroom/reporter/jan2004/viewpoint.htm](http://www.aamc.org/newsroom/reporter/jan2004/viewpoint.htm). Accessed May 9, 2007.
4. American Public Health Association. Public health work force not prepared for aging population: increasing number of seniors on horizon. The Nation's Health: The Official Newspaper of the American Public Health Association, May 2005. [www.apha.org/publications/tnh/archives/2005/05-05/SpecialReport/601.htm](http://www.apha.org/publications/tnh/archives/2005/05-05/SpecialReport/601.htm). Accessed May 9, 2007.
5. Council on Graduate Medical Education. Physician Workforce Policy Guidelines for the United States, 2000-2020. Sixteenth report: January 2005. Washington, DC: US Department of Health and Human Services, Health Resources and Services Administration. [www.cogme.gov/16.pdf](http://www.cogme.gov/16.pdf). Pages 19, 21, 32, 44. Accessed May 9, 2007.
6. Langlois JP. Support of community preceptors: what do they need? *Fam Med* 1995;27:641-5.
7. Vath BE, Schneeweiss R, Scott CS. Volunteer physician faculty and the changing face of medicine. *West J Med* 2001;174:242-6.
8. Kollisch DO, Frasier PY, Slatt L, Storaasli M. Community preceptors' views of a required third-year family medicine clerkship. *Arch Fam Med* 1997;6:25-8.
9. Usatine RP, Hodgson CS, Marshall ET, Whitman, DW, Slavin SJ, Wilkes MS. Reactions of family medicine community preceptors to teaching medical students. *Fam Med* 1995;27:566-70.
10. Single PB, Jaffe A, Schwartz R. Evaluating programs for recruiting and retaining community faculty. *Fam Med* 1999;31(2):114-21.

11. Baldor RA, Brooks WB, Warfield ME, O'Shea K. A survey of primary care physicians' perceptions and needs regarding the precepting of medical students in their offices. *Med Educ* 2001;35(8):789-95. Comment in: *Med Educ* 2001;35(8):714-5.
12. Dodson MC. Motivation and reward factors that affect private physician involvement in an obstetrics and gynecology clerkship. *Obstet Gynecol* 1998;92(4):Part 1:628-33.
13. Fulkerson PK, Wang-Cheng R. Community-based faculty: motivation and rewards. *Fam Med* 1997;29(2):105-7.
14. Kumar A, Loomba D, Rahangdale RY, Kallen DJ. Rewards and incentives for nonsalaried clinical faculty who teach medical students. *J Gen Intern Med* 1999;14:370-2.
15. Kumar A, Kallen DJ, Mathew T. Volunteer faculty: what rewards or incentives do they prefer? *Teach Learn Med* 2002;14(2):119-23.
16. Hill N, Wolf KN, Bossetti B, Saddam A. Preceptor appraisals of rewards and student preparedness in the clinical setting. *J Allied Health* 1999;28:86-90.
17. Latessa R, Beaty N, Landis S, Colvin G, Janes C. The satisfaction, motivation, and future of community preceptors: The North Carolina experience. *Acad Med* 2007;82:698-703.
18. Levy BT, Gjerde CL, Albrecht LA. The effects of precepting on and the support desired by community-based preceptors in Iowa. *Acad Med* 1997;72:382-4.
19. Grayson MS, Klein M, Lugo J, Visintainer P. Benefits and costs to community-based physicians teaching primary care to medical students. *J Gen Intern Med* 1998;13:485-8.
20. Linzer M, Konrad TR, Douglas J, et al. Managed care, time pressure, and physician job satisfaction: results from the Physician Worklife Study. *J Gen Intern Med* 2000;15:441-50.
21. Center for Studying Health System Change. Community Tracking Study, Physician Survey Instrument 2000-01 (Round Three), Technical Publication No. 37, May 2003.
22. Gerrity MS, Pathman DE, Linzer M, et al. Career satisfaction and clinician-educators: the rewards and challenges of teaching. *J Gen Intern Med* 1997;12(suppl 2):S90-S97.
23. Vaudrey B, Dobosenski T, Loos S. The new market: salary trends and hot specialties; results of AMGA's 2005 Medical Group Compensation and Financial Survey. *Group Practice Journal* 2005;54(8):9-19.
24. Irby D. Medical education: current status and promising practices. Presented at the Society of Teachers of Family Medicine 2006 Predoctoral Education Conference, Charleston, SC.
25. Remen RN. Finding meaning in medicine: reclaiming the heart and soul of medicine. Bolinas, Calif: The Institute for the Study of Health and Illness. [www.meaninginmedicine.org/home.html](http://www.meaninginmedicine.org/home.html). Accessed May 9, 2007.
26. Champlin L. Match results prompt call to action. *AAFP News Now*, March 15, 2007. [www.aafp.org/online/en/home/publications/news/news-now/resident-student-focus/20070315matchresults.html](http://www.aafp.org/online/en/home/publications/news/news-now/resident-student-focus/20070315matchresults.html). Accessed May 8, 2007.
27. Dickenson J, et al. Task Force Report 4. Report of the Task Force on Marketing and Communications. Future of Family Medicine Project. American Academy of Family Physicians. *Ann Fam Med* 2004;2(suppl 1):S75-S87.
28. Heaton C, Garrett E, Hobbs J, Hagen M. Meaningful rewards for preceptors: a win-win-win proposition? Presented at the 2007 Society of Teachers of Family Medicine Predoctoral Education Conference, Memphis.