Who Is Doing the Teaching?

During the last decade, academic medical centers and community teaching programs have experienced intense pressures to contain the costs of teaching and to maximize revenue from clinical care. For many reasons, these economic pressures are likely to continue into the foreseeable future. In particular, generalist disciplines including pediatrics, family medicine, and general internal medicine are feeling the squeeze between the demands of clinical care and teaching. Faculty in these fields play key roles as teachers and are also the main providers of primary care for large health networks. Hence, it is critically important to understand who is presently teaching medical students and residents and to consider how they will sustain this role in the tough times ahead.

The study by Nelson and colleagues in this issue provides useful insights into who is teaching general internal medicine (GIM) and where this teaching is occurring.¹ The study is a national survey of “general internal medicine teaching units” which were defined as the department, division, section, or other equivalent group of internists focused on general internal medicine teaching activities for each of the 409 residency programs in the US. Of note, the survey was not confined to the universities and academic centers evaluated in previous reports,^{2,3} but assessed the state of teaching broadly and included teaching at all sites affiliated with GIM residencies. The results allow readers to understand who is doing the teaching in a wide range of community sites and to consider the implications for future training of generalist physicians. It is also likely that the findings would be similar for pediatric and family medicine, so the lessons may be generalizable outside of GIM exclusively.

One of the most striking findings is the huge number of largely volunteer physicians who are responsible for teaching medical students and residents. Over 16,000 internists are doing the teaching and half of them do it without pay! On one hand however, this is heartening news since many physicians care enough to teach without financial compensation. These physicians use traditional teaching methods in which senior physicians instruct junior ones, often by incorporating teaching into the course of clinical care. The teachers benefit because having a student with them provides intellectual stimulation and challenges them to keep up-to-date. In addition, teaching changes the pace of the physicians' daily routines and the physicians find intrinsic pleasures in helping their future colleagues. On the other hand however, the huge number of volunteer faculty raises several worrisome questions about the future.

First, I wonder if we will be able to continue to attract and retain the enormous number of volunteers in the increasingly competitive economic medical environment. In the managed care environment, volunteer faculty members are being pressured to see a growing number of patients in the same time period and with the same re-

sources. Yet teaching also takes time. Indeed, studies indicate that teaching medical students and junior residents does require additional time.⁴ Teaching senior residents may be less of a time commitment, but still requires the volunteers to find some open time in their already over-booked schedules.⁴ It is likely that these volunteer faculty will need to reexamine whether they are able to commit precious time to teaching and whether they are willing to stay even later into the evening to complete clinical tasks set aside earlier in the day. Obviously the teaching enterprise is highly dependent on these volunteers and hence it is critically important to GIM that they be able to continue teaching despite financial pressures.

One way to sustain volunteer teachers is to reward them. How can teachers be rewarded for their work? Since it is unlikely the teaching units will have the ability to offer salary support to these physician teachers, they need to find innovative ways to give them something valuable in return for the teaching time. Teaching units have demonstrated thanks with small tokens of appreciation like teaching awards, recognition with a clinical title at the affiliated university, and thank-you dinners. Teaching units have also offered volunteers the opportunity to participate in faculty development programs designed to improve their teaching in a variety of areas including evaluating students, giving feedback, or promoting students' self-learning. These programs have the dual benefit of providing useful and stimulating educational programs for the teacher and ideally also improving their effectiveness as teachers so that the students have an optimal learning experience. The American College of Physicians has helped with this effort by producing materials designed to assist physicians in practice with tools for effective office-based teaching.⁵ While these rewards offer some reinforcement for their efforts, I think we will need to be creative about how to provide more meaningful ways to support this huge number of volunteers who form a critical component of our teaching endeavors. This is a challenge that warrants our serious attention.

Who are the paid faculty teachers? The study by Nelson and colleagues indicates that those faculty who are paid are mostly “clinician-educators” and “clinicians” who have an academic appointment as instructors and assistant professors. University medical centers have hired an increasing number of clinician-educators (CEs) in an effort to increase the number of physician faculty available to provide primary care services and support the referral network needed for the tertiary and quaternary services of the medical center. Like their colleagues in the community, CEs in academic medical centers are under pressure to see more patients in less time while simultaneously continuing their critical teaching roles. However, the CEs in academic medical centers have the additional pressure of needing to produce scholarly work and develop a regional or national reputation in order to be promoted, and in some cases, in order to stay on the faculty. In fact, in

some prestigious institutions accomplished and bright CEs are forced to leave the institution after seven years if they have not met the criteria for promotion despite the critical role they play in both the clinical and the teaching enterprise. Dr. Rubenstein and I have described our concerns that CEs have a job description that is incompatible with the traditional promotion systems in academic medical centers.⁶ We believe that academic medical centers will need to dramatically change the way they support, evaluate, and recognize their CE faculty in order to maintain a productive cadre of clinical educators who help the institution achieve both their teaching and their patient care mission.

Where does the teaching occur? The survey by Nelson indicates that the majority of the teaching of GIM occurs in community hospitals, private offices, and also in medically underserved areas. These settings offer several major advantages for trainees. For one thing, these are "real world" settings that allow students and residents to see a broad spectrum of patients and diseases common in the population. As opposed to university based teaching settings, community and office settings also provide students with learning opportunities broader than the typically tertiary care cases seen in academic medical centers. In addition, these settings may provide the best opportunities for teaching population-based care and encouraging students to learn about health promotion and disease prevention. Lastly, students and residents provide clinical care to under-served patient populations who may not have access to care without them. However, the study also indicates that only small proportions of teaching units provide care to patients in managed care. It is likely that the graduates of these programs, most of whom will become primary care doctors, will need to learn how to provide high quality care within the structure of a managed care setting. The present learning sites may not be well situated to prepare graduates for the practices they are likely to enter. In fact, colleagues in heavily penetrated managed care markets state that it takes at least one year to

"retrain" a new internal medicine residency graduate so he or she can function effectively in the real world of a managed care practice. Teaching units may need to look for new opportunities to work with managed care plans in order to provide the best settings to train their students. The Pew Institute has recently funded efforts to build collaboration between residency training programs and managed care plans. We will need novel approaches to prepare trainees appropriately for the future.

Teaching general internal medicine depends on volunteer and CE faculty who devote their time, energy, and creativity to this important task. Given the growing financial pressures and time constraints on these volunteers, teaching units will need to develop new ways to develop, support, and reward teachers. Ultimately, a cadre of high quality and committed faculty allow teaching units to accomplish their most important mission—the training of future physicians. In these times of economic pressures renewed attention to the care and nurturing of physician teachers is critical.—**WENDY LEVINSON, MD**, *The University of Chicago, Chicago, Ill.*

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