MANAGED CARE

The Clinician-Teacher in Managed Care Settings

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Managed care has grown tremendously over the last decade.¹ In 1985, there were fewer than 8 million members; in 1995, there were more than 53 million members. Increasing numbers of doctors are now working in managed care, and most new graduates of residency programs will spend their careers in capitated managed care practices. Ten years ago, we wrote about the benefits of affiliations between academic health centers and health maintenance organizations (HMOs).² What was then an interesting idea now has become a necessity.

Curricula in medical schools and residency training programs have begun to address the changes in medical practice, but they have not kept pace with managed care practice development. In fact, in many parts of the country academic institutions have been insulated from the changes in practice. The well-described gap between skills emphasized in residency training and those necessary for practice continues to widen.³⁻⁵ As a result, HMO medical directors consider the majority of primary care physicians to be "poorly qualified" for managed care practice.⁶

There is an alarming growth of physician dissatisfaction in practice. A recent study by the California Medical Association revealed the dimensions of the problem. On the basis of their current work experiences, nearly 40% of California primary care physicians under the age of 40 would not again choose careers in medicine. Physician claims for disability, another symptom of physician distress, are at an all time high. The majority of these discontented physicians attributed career dissatisfaction to negative experiences with managed care practice.⁷ Residency training program directors must ensure that their graduates do not suffer from these negative attitudes.

Patients also express dissatisfaction that can be attributed to deficient training. When patients say that their doctors don't listen, are rushed, devalue their opinions, and treat them like objects, they are indirectly criticizing the programs that have trained the doctors.

These concerns reflect the current problems of primary care practice and medical education. Building excel-

lent managed care practices that incorporate the training of future physicians can serve to correct these deficiencies. Learning to practice in real managed care sites—where residents and medical students interact with role models and participate in authentic clinical work—may be the best way to prepare doctors to provide high-quality care in a cost-effective manner and to take pride and pleasure in their work.^{8,9}

In this article we will present the results of nearly 25 years of experience in the graduate medical education of primary care internists in one managed care organization, Harvard Pilgrim Health Care (HPHC, formerly Harvard Community Health Plan). We have chosen to describe our experience in depth rather than to survey the small number of programs that have addressed the challenge of teaching in managed care settings. We will present our view of the elements of clinical competence that excellent managed care practice requires. We will describe the roles of clinician-educators in HPHC's primary care program, and discuss the challenges they face in balancing clinical practice and teaching responsibilities. Finally, we will describe the value of graduate medical education to our organization, and the challenges that must be met in order to sustain training in a busy managed care setting.

A BRIEF HISTORY

Harvard Pilgrim Health Care was founded in 1969 by the late Robert Ebert, then Dean of Harvard Medical School. HPHC is the first and largest HMO in New England, caring for more than 1 million members in four states. It is a federally-qualified, National Committee for Quality Assurance-certified, nonprofit HMO. Dr. Ebert, anticipating changes in medical practice, created HPHC as the ambulatory equivalent of the modern teaching hospital with patient care, teaching, research, and community service as elements of its mission. The commitment to nonpatient care activities was formalized in 1980 by the creation of the HPHC Foundation to fund and oversee these aspects of the organization's work. In 1992 HPHC and Harvard Medical School established the Department of Ambulatory Care and Prevention, the first medical school department in the nation to be based in a freestanding HMO. This department is the academic home of the teaching and research centers of HPHC, including the residency program we describe here.

Harvard Pilgrim Health Care has sponsored graduate medical education in internal medicine since 1972, at one time or another in partnership with four Harvard teaching

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hospitals. That training and the current program have existed within HPHC's Health Centers Division, which comprises 14 staff-model health centers. Over these 25 years, HPHC internal medicine residency training has evolved through four stages of development, culminating in a completely redesigned program in 1994. This program, which will graduate its first class of residents in June 1997, represents our current thinking about the skills, knowledge, and attitudes that residents will need for effective and satisfying practice.

SPECIAL COMPETENCIES FOR MANAGED CARE

Managed care practice requires physicians to find a balance between often-competing priorities and choices. They must work within limited resources while meeting their responsibilities to individual patients as well as to the entire population of members. They must optimize the achievement of patient satisfaction and the provision of high-quality care at the lowest possible cost. From work with a large focus group of managed care medical directors, we developed a set of eight desired competencies. Managed care organizations want to hire physicians who have:

- ◆ comprehensive knowledge and skills - including prevention, diagnosis, and treatment;
- ◆ the capacity to build and maintain trustworthy relationships;
- ◆ the ability to use evidence in making clinical and resource-utilization decisions that lead to appropriate high-quality, cost-effective care;
- ◆ the capacity to teach and counsel patients;
- ◆ the values and proficiency to make ethical decisions;
- ◆ the ability to work well on teams;
- ◆ the skills to manage information about medicine, the health care system, and continuous improvement in practice; and
- ◆ the ability to continue learning.

The medical directors are one customer for our residency program. Their observations about the characteristics necessary for successful and satisfied physicians were part of the foundation for building the program.

OVERVIEW OF HPHC PROGRAM STRUCTURE

Three years of residency training are divided into approximately 70% ambulatory experience in HPHC health centers and 30% inpatient care and emergency medicine experience at Brigham and Women's Hospital, the hospital partner in our most recently redesigned residency program. The majority of inpatient training occurs during postgraduate year 1 with 2 or 3 months' further inpatient training in each of postgraduate years 2 and 3.

Outpatient training experiences include:

- ◆ general medicine practice working in a one-to-one apprenticeship model with a faculty preceptor,

- ◆ subspecialty practice with clinicians from each medical and surgical discipline necessary for effective and satisfying primary care general medicine practice, and
- ◆ graduate-level seminars that provide the intellectual foundation for primary care and the framework for managed care practice.

A fundamental design principle of the program is that *all* outpatient training occurs within the staff model HMO environment. The residents become part of the fabric of the managed care practice. The principles and skills of managed care (e.g., cost-effective decision making, judicious referrals to subspecialists) are made explicit through the daily clinical decisions residents make with their patients and preceptors, supplemented by their learning from the seminar series.

Each resident becomes a member of a primary care clinical practice team and works with the same clinicians and support staff colleagues throughout the 3 years of training. Each resident accrues his or her own patient panel (roughly 300 by postgraduate year 3) and provides primary care for them in four or five general medicine practice sessions per week during ambulatory time. For these people, the resident is "my doctor." While the residents' learning and their patients' care are directly supervised by their assigned physician preceptors, residents have ample opportunity to experience the practice styles and special expertise of other clinicians on their teams.

Subspecialty practice sessions occupy two or three half-days a week during ambulatory rotations. Residents work one-to-one with a subspecialist, actively participating in patient care according to their competence. The medical and surgical procedures that the residents must master are taught in the office and urgent care settings.

Six seminar series occupy three half-days each week during ambulatory time. Three of these meet weekly, reflecting their importance in the curriculum. These are Clinical Epidemiology and Preventive Medicine, Psychosocial Medicine and Communication Skills, and Common Clinical Problems in General Medicine. The other three series meet for six to eight sessions in the course of postgraduate years 2 and 3. These are Medical Ethics and Professionalism, Leadership and Management, and Care at the End of Life. Each series is organized and facilitated by an expert who is comfortable with the learner-centered model of instruction used throughout the program.

Financial Structure

The program is supported by revenues from the HPHC Foundation, HPHC clinical operations, and a Title VII federal training grant. We have also received funding from the Robert Wood Johnson Foundation, the Henry J. Kaiser Family Foundation, and the Josiah B. Macy Foundation to support planning and redesign efforts in 1986 and 1993. The HPHC Foundation supports residents' salaries for all ambulatory training and the majority of ambula-

tory administrative costs, the Department of Medicine at Brigham and Women's Hospital supports residents' salaries for all inpatient training, and Title VII federal funds contribute to the support of the program director, the seminar leaders, and program administration.

HPHC now has a Medicare risk contract. This contract, set at 5% below area averages for per patient costs, presumably contains the equivalent of the indirect medical education and direct medical education payments that are made to hospitals, especially in view of the fact that HPHC is located in an area containing many academic medical centers. The allocation of the indirect and direct medical education components of the Medicare risk contract has not yet been specified either by the Health Care Financing Administration or by HPHC. Therefore, we do not know the implications of this new arrangement on graduate medical education funding for our residents during their ambulatory training.

The cost of ambulatory teaching is deeply embedded in the operations budgets of the health centers. HPHC operation funds support the added overhead of the residents at the clinical practice sites. There is no direct salary support for preceptors' teaching time. To date, the residents' panel sizes, visit rates, and urgent care practices have been considered "revenue neutral" to the clinical departments assessed over 3 years of training. As the new program is only in its third year of operation, we do not yet have data to assess its fiscal performance.

Role of the General Medicine Preceptors

Assigned preceptors are the centerpiece of the teaching and learning in our program. They are the key source of expertise about practice and managed care decision making and serve as role models for building trustworthy relationships with patients and team members. The preceptor is the stage manager for the resident's experience, providing practical learning opportunities so that the resident learns the concepts of managed primary care medicine and gains experience practicing them. Preceptors are a key source of feedback to the trainees about their performance. They often become mentors and counselors to their residents about choosing careers and balancing professional and personal life.

Residents introduce their preceptors to every new patient. Interns present every patient encounter to their preceptors. Preceptors remain intimately involved in the care of their residents' patients, meeting them personally during visits at their discretion and that of the residents. Each resident-preceptor pair shares an office adjoining their examination rooms. Day in and day out, they see and hear each other interact with patients, patients' family members, teammates, and subspecialty colleagues, both in person and by telephone. They share a library and a computer terminal. Preceptors supervise diagnostic evaluations and the design of treatment regimens, carefully maintaining a consulting role so as not to usurp the

primary doctor-patient relationship from the resident. Through discussing the care of the residents' own patients, the preceptors guide learning about cost-effective test ordering, "watchful waiting," appropriate subspecialty referrals, collaborative practice with team members and community-based providers, and appropriate use of clinical guidelines and algorithms.

HPHC's clinical information system is central to practice and teaching. The medical record, test results, appointments, and pharmacy data are computerized. Preceptors teach residents how to use online databases to help deliver preventive services and assess resource utilization. Residents learn how to use computer-generated reports to improve clinical care. The computer system provides laboratory results about individual patients. The system also aggregates data for patients with similar problems. These data about specific "populations" within each physician's practice (e.g., quarterly reports about patients with diabetes on oral agents or insulin, monthly reports about patients on coumadin, and annual reports about patients requiring influenza vaccinations) facilitate improved care for these patients and an awareness of the new tasks of managed care. Quality data about residents' patterns of test ordering, prescribing, and referral are used as teaching tools.

Role of the Subspecialty Preceptors

Good managed care practice requires that generalist physicians recognize and treat the common and relatively uncomplicated problems often seen by subspecialists. Generalists must know their limits and when to refer. Premature and inappropriate referrals to subspecialists are financially costly to the system. Late referrals are costly both in terms of patients' health and financial expenditures. Residents learn both the intellectual content and the technical skills in each subspecialty that equip them to use subspecialists' help cost-effectively. Learning objectives for each discipline have been defined collaboratively by the subspecialists, the residents, and the program director.

We have designed the program so that subspecialty learning occurs primarily in the ambulatory subspecialty and urgent care offices of the health centers. The residents' inpatient training focuses on general medicine, intensive care, and emergency services, not on inpatient subspecialty services. The ambulatory subspecialty teaching concentrates on building knowledge and skills around the problems that are most prevalent in the community.

DEVELOPING AND SUPPORTING CLINICIAN EDUCATORS IN MANAGED CARE

Recruitment and Development

Providing patient care is the primary job of HPHC clinicians. Although teaching is valued by the organization, it is an "extra" for those clinicians who volunteer to teach.

Nevertheless, a high proportion of HPHC doctors in the staff model HMO participate in teaching activities. A 1990 survey found that 93% of HPHC physicians (total group then numbering 467, with 406 responding) had taught medical students or residents within the organization at some time.¹⁰ When asked to rate incentives for teaching, 98% reported personal satisfaction as "very important" or "somewhat important," 80% rated having a Harvard Medical School appointment similarly, and 75% felt the peer recognition they received from teaching to be very important. Stimulated by the need to understand how teaching now fits into the professional lives of the clinical faculty in the context of increased marketplace pressures to provide care, we are repeating this survey in 1997.

We have developed criteria for selecting health centers as training sites and for selecting preceptors to teach. Our considerations include:

- ◆ demographic characteristics and case mix at each health center,
- ◆ geographic location of the health center with respect to Brigham and Women's Hospital,
- ◆ clinical leadership support for the program in each center, and
- ◆ clinician interest in teaching.

After selecting the training sites, we consult with the department chiefs about potential preceptors, considering their reputation as clinicians, managed care skills, stage of career and practice development, and interests. Recruiting good preceptors has become more difficult as productivity and performance demands have risen in line with increasing managed care competition locally.

Faculty development is an important part of our program. Our efforts have been assisted by the close affiliation with Harvard Medical School. Workshops are provided periodically, especially when new preceptors are recruited into the program. These workshops focus on specific teaching methods like educational contracting, questioning techniques, and feedback skills. Faculty development sessions provide valuable opportunities for preceptors to share their unique approaches, tips, and techniques of teaching with each other. In addition, several preceptors have attended the resident seminars on leadership and management, including the component on quality improvement offered by the Institute for Healthcare Improvement.

As we have formalized the residency curriculum in the redesigned program, we have identified general faculty development opportunities, both in teaching skills and in new clinical skills for managed care effectiveness. We plan to design and deliver a new, formal faculty development curriculum to better support our clinician teachers.

Compensation, Reward, and Recognition

As stated above, we do not directly pay preceptors to teach. For these salaried physicians, teaching is part of

their clinical work. To date, the time for teaching by the general medicine preceptors has been compensated by adding residents' patients to their preceptors' panels for accounting purposes. This has helped preceptors achieve productivity targets. Similarly, we have not paid the subspecialty preceptors, assuming that residents help them see their usual number of patients. Some preceptors reserve 15 to 30 minutes in their daily schedules to allow for more extensive discussions of clinical problems with the residents than can be done in the presence of patients, a practice that reduces the number of patients seen during the sessions.

The preceptors report that their most valued reward for teaching is the satisfaction they derive from their work with residents. All preceptors hold academic appointments at Harvard Medical School, and with recent changes in promotion criteria, they will be eligible for academic advancement for excellence in teaching. The program honors its clinician-educators at a graduation ceremony each year. In addition, HPHC has created the Ebert Teaching Award, which is given annually to a meritorious clinician-educator.

THE VALUE OF TEACHING TO MANAGED CARE

Our residency program has benefited HPHC in several areas:

- ◆ *Enhanced physician recruitment:* The clinician-educator role has facilitated the recruitment of staff physicians in two ways. First, we have hired more than 25 of our programs' graduates since 1975; and second, we have attracted physician candidates from the nation's top training programs and from other practice settings because of the opportunity to teach.
- ◆ *Enhanced learning for clinician-educators:* Most preceptors believe that working with bright and challenging residents brings the latest ideas from the academic medical center and the hospital to their offices and enhances the intellectual rigor of office practice.
- ◆ *Improved team dynamics:* In at least several instances, the presence of residents has clarified team members' roles and improved team dynamics.
- ◆ *Heightened respect for HPHC physicians at the affiliated teaching hospital:* The clinician-educators' close working relationships with the residents have produced respectful and effective connections among the entire group of HPHC clinicians and staff and the non-HPHC residents at the affiliated teaching hospital (J. L. Dorsey, Corporate Medical Director and Senior Vice President of HPHC, personal communication).

The residency program has thus provided interested HPHC physicians with an important route to career satisfaction. Given the cost of physician recruitment, a managed care organization can derive significant service and financial benefits by sponsoring residency programs if teaching aids in recruitment and retention of valued physicians.

CHALLENGES

Productivity and Financial Stability

We acknowledge that teaching influences productivity in ambulatory settings. Taking time for teaching removes the doctor from patient care activities and does not generate revenues. We have studied the impact of our residency program on productivity. Even when teaching regularly, our general medicine and subspecialty preceptors are among the most productive physicians in their groups as measured by panel size per doctor, one of the most important measures of productivity in a capitated system.¹⁰ Our study also investigated the tactics that busy preceptors use to manage the challenge to productivity. We found that 81% “worked harder,” 40% “used unscheduled sessions” for discussions with their residents, 15% “added sessions” to their schedules, and only 14% said they “lightened their patient bookings” during precepting sessions. Clearly our clinician-educators are willing to work harder in order to teach. We appreciate that there is an effort beyond which teaching detracts from, rather than adds to, physicians’ job satisfaction.

We attempted to design the program to be self-supporting, at least in general medicine. Several groups have determined that the financial value of residents’ practices, summed over the 3 years of training, more than offsets the preceptors’ productivity loss and the direct costs of teaching in fee-for-service settings.^{11–13} To generate financially valuable service in a managed care organization in which staff clinician-educators are salaried employees and revenues accrue from prepaid care contracts with patients or their employers, residents’ productivity must replace the need for more costly clinical staff. Our new program design allows residents to care for primary care panels with teaching and supervision from preceptors. The combined panel size of a senior resident and a preceptor is larger than that which the preceptor could serve alone. Therefore, when the new program achieves a steady state in the future, HPHC can substitute lower-cost resident full-time equivalent for more expensive senior staff physicians.

Patient Satisfaction

Patient satisfaction was another concern in the design and development of the program. We anticipated that patients who paid the full premium for health care would demand care from the most senior and experienced physicians. Patients are offered residents as primary care physicians through the standard new member assignment process used for all HPHC physicians, with full disclosure of the residents’ status and their relationships to the staff preceptors. To our gratification, however, in a study of patients’ satisfaction with their involvement in HPHC research projects and teaching endeavors, residents’ patients are reporting very high satisfaction (in-progress study by HPHC investigators S. Purdy, R. Fletcher, J. Finkelstein, T. Inui, and A. Plasso, personal communication). In particular, they are satisfied with accessibility, length of visit

time with their resident physicians, thoroughness, and the residents’ attentiveness to their concerns. These four elements of patient satisfaction are among the lowest-scoring and most troubling in satisfaction surveys of patients in many managed care settings.

Faculty Development and Creating an Academic Culture

We face two clear and present challenges in the area of faculty development. The first is to continue to foster the development of effective teaching techniques among our clinician-educators. The second is to enhance managed care and clinical skills so that preceptors can connect the formal curriculum components of the seminars to the teachable moments that arise in practice. As noted above, formal faculty development activities are necessary to support the continued growth of the program.

Only a few of our preceptors have had experience as faculty members in academic teaching hospitals. Hence, our program has the challenge of creating an academic culture within the practice organization. This is similar to the many important efforts under way across the country to develop faculty networks among community-based physicians. In this process, we have struggled to balance preceptors’ busy schedules with the need to come together as a group in ways that create culture—to discuss issues, successes, and concerns. To date, we have found that holding three or four working dinner meetings per year with the faculty and residents serves this need fairly well. In addition, the program director is beginning to rotate among the health centers as an occasional “guest preceptor” in order to provide support and to see more directly the day-to-day operation of the program.

A longer-term challenge for faculty development—and more fundamentally for program design, involves consideration of whether the program should expand into the independent physicians’ association model of care delivery that exists within HPHC. As noted, our residents’ ambulatory training is currently entirely within the staff model of HPHC’s health centers. Just as Veloski and colleagues describe the experiences of medical students’ training in staff model HMOs,¹⁴ we know that the residents’ learning in our staff model health centers is not only a function of the explicit objectives of the program, but also the result of their immersion in the culture of the health centers. As staff model practice represents only about 10% of what is considered managed care practice, we anticipate the need to explore how to provide optimal training to ensure that program graduates will master the knowledge and practice skills required for work in the more prevalent models of practice.

CONCLUSIONS

There are two reasons why more teaching should be done in managed care settings. First, managed care is

coming to dominate the organization and financing of health care delivery in the office and the hospital. Therefore, no substantial growth of ambulatory teaching can occur without learning how to teach cost-effectively in managed care settings. Second, residents must acquire the knowledge, skills, and attitudes necessary to deliver high-quality, cost-efficient care.

Many residency training programs are beginning to teach about managed care, particularly about managing care cost-effectively. Much of this teaching is done through lectures. This is an important step in the right direction, but it is unlikely to change residents' practice behaviors substantially. Medical students learn a great deal about congestive heart failure in classrooms; residents learn about successfully managing patients in congestive heart failure by actively caring for them with the guidance of experienced clinicians. We believe this analogy holds for the new lessons physicians-in-training require about resource utilization and medical practice that incorporates a population perspective within the care of individual patients. This is why high-quality managed care organizations are very well suited and essential to graduate medical education.

In our experience, primary care residency training within a managed care organization is practical and beneficial to the trainees, the host organizations, and their clinician-educators. Nevertheless, the tasks and challenges entailed in developing training programs within managed care organizations are substantial. We are just beginning to learn how it can be done, and we face the daunting task of keeping up with an accelerating rate of change. The most valuable resource of any managed care organization is its physician staff. By participating in training programs, a managed care organization can attract the best staff, prepare them and the residents to be the best doctors to practice in the future, and position itself to be an organization on the cutting edge of improvements in clinical care.

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