

The Future of Physicians' Time

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Physicians' time is under assault in the current health care system. In particular, managed care payers are reducing compensation to physicians on a discounted fee-for-service basis. More demanding consumers, complex new technologies, and increased managerial and administrative burdens are placing further constraints on physicians' time. As we look ahead, it seems likely that these pressures will intensify and transform the ways in which physicians spend their time. Physicians will play eight key roles in the future: clinical data collector, shaman, health advisor and wellness coach, knowledge navigator, proceduralist, diagnostician, physician manager, and quality assurance specialist. They will need to lead the redesign of these roles and define the ways in which they should spend their time in the health care system of the new millennium.

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Pressures on physicians' time have intensified over the past two decades. The rise of managed care in particular has had a negative effect on the quantity and quality of time that physicians spend with patients. In the future, patients will have an increasingly active role in health care and use of the Internet will become more frequent. These factors, coupled with dazzling new medical technologies, will profoundly affect the role of physicians and the ways in which they spend their time.

Physicians give time to their patients. Time is principally what physicians are paid for, not results or outcomes. The fee-for-service concept was developed as an economic model to compensate physicians for their time, with some reference to the complexity of the service or the degree of training required to provide it. Patients value their time with physicians and want to have more of it. Yet as health care enters a new millennium, physicians seem to have less time for patients. Physicians' time is not valued as highly by those who pay the bills, and physicians seem to be working harder, seeing more patients but spending less time with each of them. Physicians are spending more time on administrative and management duties and less time on their own families. Why is the physician's time under assault?

In the good old days, everyone seemed to respect physicians' time. For example, the reimbursement principle of "reasonable and customary charges" allowed physicians to bill for their time as they and their peers saw fit. Similarly, patients dutifully waited for the physician, accepting the notion that

the physician's time was more valuable than their own. What happened? And where is it headed?

Managed Care: A Tarnished Solution

Managed care became the mainstream method of health care delivery in the United States because those who paid for services, including consumers as taxpayers, employees, and patients, were unwilling to pay ever-escalating health care costs. Managed care, a uniquely American response, developed because corporations were experiencing rapid increases in health premiums that threatened to swamp corporate profits entirely, particularly after the 1991 recession. The Clinton health care reform bill was an attempt to bring managed care to all Americans, but its failure to pass Congress reflected a general unwillingness to increase the government's role in health care.

In the late 1990s, managed care is the only idea we have for financing and organizing U.S. health care despite the fact that managed care companies are almost as despised in public opinion polls as tobacco companies (1). However, as we enter the new millennium, large, vertically integrated health maintenance organizations (HMOs) such as Kaiser Permanente are not the most common. They remain the loyal opposition, a different model of prepaid group practice that caters to a specific clientele. No, the prevailing system is one that I call *virtual single payer*. This term refers to the health plans that consolidate horizontally to gain market share in a specific geographic area; in so doing, they emulate the contracting clout of a single payer but are not as efficient. Although a typical physician in an advanced managed care market may have a practice in which 25% of her patients are covered by a health plan like Aetna U.S. Healthcare, she may still have to deal with 20 other plans and their various rules, formularies, authorizations, copayments, and deductibles. The virtual single payer system has resulted in what I call the "hamster model" of physician reimbursement, making the situation of U.S. physicians similar to that of physicians in Germany and Canada.

Physicians in Canada and Germany are like hamsters on a wheel. They are under a fixed budget for all physician services and must also adhere to a standardized fixed-fee schedule. Each physician tries to earn his or her target income by providing more

and more services; however, as total use of the service increases and exceeds the preset total budget, the fee for each service decreases for all physicians. Like frantic hamsters, they push the little wheel faster and faster, trying to get to the target incomes before the budget runs out. The more the quantity of the service increases, however, the more the fee decreases. In Canada, the decrease in fees is reinforced by limits on total income. Once that income limit is reached, physicians have no incentive to see patients and therefore take what are euphemistically called "reduced activity days." In other words, physicians have little or no reason to keep their practice doors open after a certain amount of billing has been done. After that point, their time has no value.

Ironically, this is precisely the intent of the reimbursement scheme. It recognizes that physicians' net income (the reimbursement for their time) accounts for only 10% of the total costs of care; their activity and decisions are responsible for most of the remaining costs. The income of physicians (the cost of the physicians' time) is not the overall cost problem. The problem lies in the economic consequences of trying to reach that income in a fee-for-service system that incurs further costs for drugs, surgery, and hospital expenses.

In Canada and Germany, physicians become like hamsters on a wheel of ever-discounted fees for service and are paid less and less for their time. The virtual single payer strategy, which most health plans in the United States are pursuing, will also exacerbate the assault on physicians' time.

The managed care system in the United States has not specifically tried to reduce the economic return of physician's time as directly as have similar systems in Canada and Germany, but the result has been to devalue physicians' time and to reduce their autonomy. Capitation and salaried forms of reimbursement tried to change the incentives for physicians so that they would allocate resources, including their time, more efficiently. In particular, capitation promised that physicians would husband all of the clinical resources and make cost-effective tradeoffs between their time and that of other caregivers. To many physicians, however, capitation is the medical equivalent of subsidies for tobacco farming—they are paid to refrain from doing the thing they love best, which is seeing patients. Capitation is an incentive to do less, an idea that troubles physicians and patients alike.

As we enter the new millennium, capitation is stalling as a method of reimbursement (2), in part because of the paucity of medical groups that are capable of managing in a capitated environment and in part because of the negative perceptions of quality associated with this principle. Group and

staff-model health maintenance organizations are not growing; rather, open-access health maintenance organizations and preferred provider organizations now dominate the managed care scene. These large, multiproduct plans—managed care "lite"—are capable of offering low costs (because of their contracting clout as virtual single payers) and perceived high quality (because of the breadth and openness of their physician networks). They will probably continue to dominate the managed care marketplace, at least in the near future.

However, managed care "lite" puts additional burdens on physicians' time. Because this system imposes rules on the clinical decisions of physicians and increases the difficulty of obtaining payment and approval of claims, physicians and their office staff must spend more time on nonclinical activity. It should be noted that there is little or no utilization review in Canada and Germany and that both systems have simple, standardized billing mechanisms.

Managed care physicians in the United States face the ultimate time crunch as a result of the virtual single payer form of managed care "lite." Fee income decreases per office visit (which puts pressure on time spent with patients), and administrative expenses increase per office visit (which means that more time and money are spent on nonclinical activities). This time crunch will become more apparent if there is an economic downturn and payers continue to move employees (that is, patients) into managed care "lite" plans.

Consumers and the Internet

Managed care has not vanquished escalating health care costs because it has not taken any meaningful measures to change the capacity of health care or to slow the introduction of expensive new technologies. As a result, health care insurance premiums increased at a rate of 8% to 10% in 1999; similar increases are projected into the start of the millennium. In response, employers are passing much of the burden of increasing health care costs onto their employees. This is part of a broader trend toward consumerization in health care, which will ask the consumer to pay more out of pocket in the form of copayments and deductibles, premium sharing, and three-tiered formularies. In a typical three-tiered formulary, generic drugs are available for a \$5 to \$10 copayment; brand-name, sole-source drugs are available for a \$15 to \$25 copayment; and so-called lifestyle drugs, such as Viagra [Pfizer, Inc., New York, New York], are available for a \$35 to \$50 copayment). Consumers are being forced to shoulder more of the economic burden of health

care, reversing a 30-year trend of expanded third-party coverage.

At the same time, consumers are becoming more active and are beginning to use new technologies, such as the Internet, to access information about their health. Recent surveys, conducted by researchers at Harris Interactive (New York, New York) and Harvard University School of Public Health, suggest that approximately 70 million Americans have accessed information on line and that 91% of them found the information that they were looking for (3). Patients go to their physicians armed with reams of Internet printout or send lengthy e-mails with multiple attachments about new research that affects their diseases. Although recent surveys indicate that physicians view the Internet as a positive way to improve communication with their patients, it represents another drain on physicians' time (Leitman B. Personal communication).

The Internet and electronic commerce also offer radical new ways for patients to interact with physicians. For example, CyberDocs.com, an Internet-based service, offers virtual appointments with physicians through e-mail and teleconferencing for a fee of \$50 to \$75 per consultation. Physicians diagnose and recommend treatment for routine ailments and will actually prescribe medications for common problems, such as allergies and high blood pressure. And, yes, on-line physicians have their own malpractice insurance.

Physicians' Time in the Future

The failures of contemporary managed care, the rise of the Internet, and the dazzling new medical technologies that will emerge in the next decade will challenge the ways in which physicians spend their time in the future. New biological research is at the core of the transformation that is under way in clinical medicine. The exposition of the human genome and the development of new diagnostic and therapeutic tools will create new opportunities for medical practice. Similarly, robotics, the rise of alternative therapy, and the use of nanotechnology (microscopic machines that could conceivably clean out arteries or clip aneurysms) will each have profound effects on the tools and content of medicine.

According to the chief executive officer of the Kaiser Foundation Health Plan, David Lawrence, MD, the fundamental challenge for the health care industry in the new millennium is that the "chassis of health care delivery cannot support the new science." Lawrence states that the fruits of innovation in molecular biology and the power of the Internet (and of information technology developments to come) cannot be bolted on to a health care financing and delivery model that is at least 100 years old.

He is right. There is no way to simply attach the new science to "hamster care"; however, this is where we are headed unless we radically change the way in which medical care is delivered.

The office visit, the history and physical, and the referral are old ideas. We need a new chassis for the delivery of the new science. We need to reconceive the ways in which medical care is organized, the ways in which practitioners interact, and the best ways to use new technology, especially the Internet. What will this mean for physicians and the ways in which they spend their time? The most important effect will be a reexamination of the roles physicians play. Physicians will probably have eight core functions in the new medicine.

Clinical Data Collector

Physicians have certain unique data collection skills that bring huge amounts of knowledge to bear on the sounds and sights presented to them. For example, during auscultation, a physician obtains a great deal of information that a less well-trained practitioner may not recognize. Physicians will probably continue to collect and interpret information on the basis of patients' appearance and reported symptoms. Increasingly, however, these functions of clinical data collection will be replaced by diagnostic probes and sensors and, in the area of imaging by pattern recognition, computer intelligence applied to magnetic resonance imaging and positron emission tomography. The role of clinical data collection may be reduced, but it is unlikely to disappear.

Shaman

Modern physicians often underestimate the power of their ancient role as healer. The shaman factor will become more important in a world of machines and digital intelligence. Birth, death, and illness are spiritual events. Although they may not realize it, physicians play an important ceremonial role in these events. Use of alternative and complementary providers has grown so rapidly in recent years in part because the public thirsts for a spiritual connection to their healers.

Health Advisor and Wellness Coach

Compliance is a huge issue in medical care. Patients know that they should not do unhealthy things that taste and feel good, but they do them anyway. Patients do not take medications even when the medications are effective. We do not listen. Physicians have a great deal of persuasive power, but they do not often use it on the right subject; for example, they rarely explore and address substance abuse (4). Physicians could be powerful health and wellness coaches if they harnessed their knowledge to the new information technology. For example,

imagine having your own digital appointment with your physician every week. Every week, you would get an e-mail from your physician with some key questions, reminders, and data collection points. The e-mails would be computer-generated and the responses would be automatically analyzed, but if you faltered you would get periodic voice mail messages, summonses to your physician's office, and even house calls. Initially we might be irritated, but over time we would probably adapt, and imagine how healthy we would be. The worried well could be soothed electronically. Of course, many of these services are already being provided by pioneering Web sites without the involvement of physicians. This is one reason why physicians should be worried about changing the ways in which they spend their time.

Knowledge Navigator

Despite (or because of) the explosion of health information on line, despite the availability of answers to frequently asked questions (FAQs) and all of the search engines, access to information without the knowledge to process it can make patients even more uncertain and confused. Increasingly, physicians will encounter patients and families who have a lot of information but very little knowledge. They will need help and coaching in managing, interpreting, and customizing information about health and disease. Physicians could be the perfect knowledge navigators in the coming information-rich era, helping patients through difficult choices by developing customized decision trees on treatment, coaching them on sources, and advising them about times when too much knowledge could be bad for their health and well-being. Again, technology-based solutions will offer an automated version of similar services, but again, physicians will have an opportunity to harness the new tools to serve patients.

Proceduralists

Despite nanotechnology, robotics, noninvasive surgery, and advances in pharmacology, a lot of scoping, groping, probing, and even cutting will still be done by human beings in the new millennium. Obviously, physicians will play a big part in the 20th-century medical care that spills over into the 21st century. It is well to recall that as a profession, physicians have never run out of things to do. When antibiotics largely eliminated tuberculosis and the institutions that served patients with that disease, physicians did not just disappear from the field. The new proceduralists will be nanosurgeons, digital radiologists, invasive geneticists, and xenotransplant surgeons.

Diagnostician

Every nonmedical person imagines a future in which diagnosis is performed by machines. A thing that resembles a Palm Pilot will be able to draw samples, run tests, analyze results, and calculate a diagnosis. Even better, all of these things could be done by subcutaneous sensors connected wirelessly to America Online. This has been the idea of the future for more than 30 years—but so far, it exists only on Star Trek. When Technicon developed the 20-channel blood chemistry analyzer in the 1960s, many believed that a simple battery of tests was all that was necessary to diagnose most problems. Some went so far as to advocate using the new technology for multiphasic screening of entire populations. However, the tests were not perfectly sensitive or specific and had a high percentage of false-positive and false-negative results. Those persons responsible for health planning must be careful not to fall into a similar but more sophisticated technological trap. Physicians will still play a critical role in synthesizing various data inputs within a knowledge and decision-making framework that is difficult to emulate on even our most powerful computers. However, physicians would be wrong to assume that they will never be replaced as diagnosticians. They must learn to use the new tools in order to make quantum improvements in quality and productivity of disease diagnosis. Physicians will increase the value of their time by using the new technologies.

Physician Manager

Increasingly, physicians will spend time managing other physicians. As in other professions, such as law and accounting, the managing partner will play an ever more important role. In large accounting and consulting firms, partners now manage tens of thousands of their peers. The American College of Physician Executives and large medical groups such as the Kaiser Permanente Medical Group have been pioneers in this area. In the future, however, the roles of physician managers will take many forms, from the traditional management roles in group practice, academic medical centers, managed care companies, and hospitals to management roles in e-health companies, medical technology and pharmaceutical companies, and new health care delivery systems that have yet to be invented.

Quality Assurance Specialist

Physicians care about quality. They spend an increasing amount of time on the measurement, management, and maintenance of quality. They will continue to do so by using sophisticated analytic tools, such as those used in the creation of the Dartmouth Atlas of Healthcare, and by using clinical outcomes,

patient satisfaction information, and new databases that are created by the growth of electronic commerce in health. Physicians will play increasingly important roles in improving practice through research and monitoring. This field is still in its infancy. There is a demand for scorecards and quality improvement initiatives, not just at the health plan level but at the level of medical groups and even at the level of individual physicians. New roles will be created in the quality management area as a result.

Conclusions

This essay represents a futurist's view of the different ways that physicians may find themselves spending their time in the future. However, physicians themselves must envision a future that offers them something better than being a hamster on a wheel but does not involve a return to 1975 or some other imagined past. Physicians must help develop a future that moves beyond a vision of the good old days when physicians were free to spend their time as they wanted, practice as they saw fit, charge what they wanted, and remain unaccountable for total cost and quality of care. This future must also be acceptable to the profession. Physicians are upset that society does not seem to value their time, and a health care system in which physicians feel alienated and depressed cannot be sustained. In addition,

the health care system of the future should incorporate new models of organization and reimbursement that are more fitting to an age in which responsiveness to patients and their families and technical excellence are as valuable as time.

Physicians today are floundering. They are kicking at the traces of managed care by advocating unions, opting out of contracts, or even supporting government-run single-payer systems. These actions are all symptoms of a profession whose time is under assault. Physicians and their leaders must look to the future. Innovation is desperately needed in the organization of medical care and in the ways in which physicians spend their time. That innovation should come from physicians.

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