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David Dranove: The Economic Evaluation of American Health Care

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Marcus Welby Medicine

MOST BABY BOOMERS remember the popular 1960s television show *Marcus Welby, M.D.* Portrayed by Robert Young, the television doctor was everyone's favorite primary care physician (PCP). He was wise, kind, and one of the most trusted members of his community.¹ He was also at the center of a medical care system not unlike what patients in the real world experienced.

In the era of "Marcus Welby medicine," a patient who fell ill would visit the PCP's private medical office. If the patient could not travel, the PCP might even make a house call. The PCP would spend as much time as necessary to make an initial diagnosis and recommend a treatment. If the patient was not too ill, the PCP would send him or her home with a word of encouragement (and a carefully described prescription, if necessary) and might even phone later to check on the recovery. If the patient was seriously ill, the PCP would make a referral to a specialist or suggest that the patient be admitted to the local nonprofit community hospital. The PCP remained a staunch advocate for the patient throughout treatment.

The PCP and specialists had unquestioned authority within the hospital and retained nearly total control over medical decision making. They merely had to ask, and they would gain access to the hospital's complete arsenal of medical personnel and equipment. Hospital administrators stayed out of medical decision making. They staffed the hospitals, procured supplies, and handled fiscal matters but otherwise deferred to the medical staff in all clinical matters. Nor did health insurers intervene. They sold indemnity insurance, which permitted patients to receive care from any licensed provider, and paid for all services rendered, except possibly for a nominal copayment. With administrators and insurers playing passive roles, physicians clearly stood atop the hierarchy of the health care economy.

In the past two decades, the medical care system embodied by Marcus Welby has disappeared, replaced by one that often seems dispassionate and depersonalized. Nowadays, a patient visits the medical office of a group practice, where the allied medical personnel greatly outnumber the PCPs. After a long wait, the patient spends the majority of time with a nurse or nurse-practitioner. The PCP often does little more than confirm the nurse's diagnosis and dispatch the patient with a hastily written prescription. Nor is the PCP likely to follow up with a phone call after the

patient returns home. If the patient is very ill, the PCP might make a referral to a specialist (always in writing to conform to the rules of managed care organizations [MCOs]) but often will consider the financial implications first. After all, many MCOs provide financial rewards to PCPs who limit their referrals. (MCO critics state the converse: MCOs punish PCPs who fail to limit their referrals.)

The demise of the traditional health care system has also affected physician autonomy over medical decision making. Hospital administrators, facing declining reimbursements from Medicare, Medicaid, and MCOs, may force physicians to follow treatment guidelines designed to cut costs. Even worse in the eyes of the medical community, the MCOs themselves are looking over physicians' shoulders. MCOs may refuse to pay for prescription drugs or other services deemed unnecessary, experimental, or too costly. Even if an MCO covers the service, it may force the patient to receive it from an unfamiliar provider. Most infuriating to many patients, most MCOs limit their choice of PCP.

MCOs impose these restrictions largely to save money. In this respect they have been very successful. After three decades of double-digit annual increases in health care expenditures, health care costs are largely under control. Private sector costs were nearly flat for much of the 1990s, and even the recent 6 to 8 percent annual increases in private health insurance premiums are below historical rates of inflation. As documented later in this book, the consensus from the research literature is that these cost savings have been achieved without any systematic reduction in the quality of care. In fact, some MCOs have become catalysts for quality improvement. Americans don't believe it, and MCOs have become among the most unpopular organizations in the United States. Responding to a Harris Company survey in April 1999, American adults ranked MCOs alongside the tobacco industry on service to customers, and only 37 percent felt that MCOs would "do the right thing" if they had a serious problem.² Americans may despise MCOs, but they do not display their displeasure in the one place it counts the most—the market. MCOs dominate the health economy, and few patients seem willing to pay the substantially higher price for traditional indemnity insurance.

THE SHOPPING PROBLEM

The transition from Marcus Welby to managed care has been remarkable. In less than thirty years, the American health care system has evolved from one in which patients placed complete trust in their PCPs to one in which they delegate responsibility for life-and-death decisions to individuals and

institutions they know little about and trust even less. These two systems for delivering care may seem to have little in common, but I believe they emerged for the same reason. Both represent efforts to solve the fundamental problem of the health economy:

The fundamental problem of the health economy is that it is difficult for any person or any organization, be they patient, physician, MCO, or the government, to be an efficient and effective purchaser of health care goods and services.

A moment's reflection indicates the enormity of the shopping problem. A patient must determine *what* medical services to buy and *where* to buy them. In addition, the patient must assure the *coordination* of a seemingly endless array of caregivers, including doctors, nurses, hospitals, and outpatient facilities. On their own, most patients lack the knowledge to perform these tasks well. Even a patient who assiduously searches the World Wide Web may, at best, determine what to buy. But that patient is unlikely to find the best place to buy services and will still be left with the challenge of coordinating delivery. It is no wonder that patients have relied on others to do these things for them.

Before the rise of managed care, physicians were almost solely responsible for solving the shopping problem. Patients delegated all authority to physicians and in return obtained what they perceived to be high-quality care, though at a high cost. In the 1970s, patients tolerated federal and state regulatory efforts to rein in costs, but these regulations failed. Managed care, which began at the start of the century but did not come to dominate the health economy until the 1990s, represents a different solution to the patient's shopping problem, one that emphasizes cost containment and elimination of unnecessary services. But patients do not trust managed care to provide high-quality, and providers protest the heavy hand of MCO intervention. As a result, the shopping problem remains largely unsolved.

Arrow's Argument

In 1963, economist Kenneth Arrow (an eventual Nobel Prize winner) published a landmark paper about the economics of health care.³ Arrow had just completed pathbreaking research about competitive markets, but in this paper he observes that the way that patients shop for health care services does not resemble shopping behavior in any other markets he had studied. He wonders, for example, why there is no counterpart to the PCP in any other market.

To answer this and other questions, Arrow applies an economic concept called the “survivor principle,” which states that any institution or way of doing business that dominates a market must achieve its success by providing greater value to consumers than the alternatives. In applying the survivor principle, Arrow points out that there were alternatives to the traditional health care system that could have emerged but did not. Rather than visiting PCPs to initiate treatment, patients might have directly sought out specialty and hospital care. Physicians could have been employed by hospitals, rather than work directly for patients. For that matter, insurers could have employed physicians. Patients might even have self-diagnosed their illnesses and developed their own treatment plans. In this case, physicians would be little more than technicians providing the requested treatments.

Arrow reasons that if Marcus Welby medicine won the “market test”—that is, if it was the dominant model for organizing health care delivery—then it must have been the superior solution to the shopping problem. Arrow concludes that patients must be better off delegating medical decision-making responsibility to autonomous physicians rather than trying to solve the shopping problem themselves or relying on physician/employees. Arrow then speculates about what it is about health care that makes this so.

SOLVING THE SHOPPING PROBLEM

Arrow observes that when consumers go shopping, whether for groceries, clothing, or dry cleaning, they usually have some idea about what they want to buy. Not so when shopping for medical care. Medicine is complex. Even the most innocent of symptoms, such as hiccups or shortness of breath, can indicate a wide range of diseases, from the mundane to the life-threatening. Very rare is the patient who can confidently self-diagnose the need for a calcium channel blocker, an artificial hip, vascular surgery, or chemotherapy. Of course, there are many other important purchases about which consumers do not know as much as they would like: automobiles, televisions, vacations, computers, college education, retirement investments, and so forth. While consumers often solicit the advice of others about these purchases, they rarely abdicate decision-making authority to the extent that they do when purchasing medical services. To understand why, it is necessary to examine consumer shopping more generally.

In assessing the consumer’s shopping problem, economists distinguish between search goods and experience goods. *Search goods* are those for which information about quality or other nonprice dimensions is of virtu-

ally no value. Many consumers are indifferent about brands of aspirin, manufacturers of computer diskettes, and retailers of home electronics. For goods and services such as these, quality is not an issue. Instead, consumers select the brand, manufacturer, or retailer largely on the basis of price and convenience. *Experience goods* include those goods and services for which consumers could always stand to have more information. Televisions, automobiles, hairstyling, and lawn maintenance are examples of experience goods. Medical care may be the quintessential experience good; most patients know little, if anything, about their medical care purchases.

Shopping for Experience Goods

Consumers usually do a good job of shopping for experience goods. Diligent consumers have forced electronics firms and automakers to continuously boost quality and reduce costs. Lousy hairstylists and sloppy gardening firms quickly go out of business. How do consumers get the information they need to make well-informed purchases of experience goods? First and foremost, they consider their past experiences with the seller. Consumers also ask friends, coworkers, and relatives about their experiences. At the same time, sellers advertise their products and services, though many consumers are wary of marketing claims. Skeptical consumers often turn to third-party rating services such as *Consumer Reports*. Sometimes consumers cannot obtain information about quality from any of these sources, for example, when such information is hard to describe or when the product is new. In these situations, consumers may rely on the seller's brand name as an indicator of quality. When consumers of cars, high-end stereos, and clothing see the brands BMW, Thiel, and Armani, they know to expect outstanding handling, faithful audio reproduction, and high fashion.

Why Health Care Is Different

When shopping for medical services, patients rarely avail themselves of "traditional" sources of information such as word of mouth or brand name. Instead, they mainly rely upon their physician to shop for them. (A crucial exception, described later, is when patients shop for their PCP.) It follows from the survivor principle that the sources of information that consumers find so useful when shopping for a car or a stereo must be less useful when shopping for medical care. Arrow identified two salient features of health care services that make this so. First, demand for health

services is irregular and unpredictable. Second, patient needs are idiosyncratic; that is, no two patients are exactly alike.

Few patients are unfortunate enough to repeatedly purchase the same medical services, especially costly treatments for life-threatening diseases. Nor can many patients predict the need for such services more than a few days or weeks in advance. Lacking both experience and the time to shop around, patients are hard-pressed to develop the expertise necessary to make many important medical purchases. In this way, medical care stands in sharp contrast to other experience goods, such as autos, for which consumers have both substantial experience and ample time to research alternatives.

Unpredictability has a side effect—it fuels the demand for insurance. Patients who lack health insurance are gambling with their wealth. But unlike playing the slots at Las Vegas, this is a gamble that no one enjoys. Health insurance eliminates the gamble, but it makes health care essentially costless to the patient. As we will see later, this has profound implications for the health economy.

Health care needs are not only unpredictable but also highly idiosyncratic. Two patients may have similar symptoms but vastly different conditions. Two patients with the same condition may respond in very different ways to identical treatments. As a result, patients can not rely too heavily on the anecdotal experiences of others when making a self-diagnosis, when evaluating a treatment plan, or even when selecting a provider. Health care has become more specialized over the years, making it more difficult than ever for patients to draw conclusions about their own medical needs on the basis of the experiences of others.

Patients not only have a difficult time determining what medical services to buy but also need help determining where to buy them. When seeking care from specialists and hospitals, patients naturally want the very best. Until the last few years, there was no easy way for patients to quantitatively rank the best hospitals, specialists, or other medical providers. Even today, published rankings of providers are rudimentary, and few patients use them.

Unable to rely on personal experiences, word of mouth, or hard evidence, it is no wonder that patients have relied on their physicians to solve the shopping problem. Who better to turn to than physicians? Physicians spend four years in medical school and another four to six years in residency training, have many additional years of experience, keep up with medical journals, attend conferences and continuing education programs, and regularly network with colleagues. Physicians seem to have the necessary information that patients lack. Assuming that physicians act unselfishly (an assumption I will take up later on), it makes perfect sense for patients to turn over complete decision-making authority to them.

Doctor Web?

Many policy analysts believe that patients need to assume more responsibility for solving the shopping problem.⁴ Through the Internet, patients certainly have unprecedented opportunities to do so. There are over twenty thousand medical sites on the World Wide Web, including sites from leading academic institutions like the Mayo Clinic and Johns Hopkins Hospital, as well as profit-seeking organizations such as America's Health Network (formed by Richard Scott, former president of the Columbia/HCA hospital chain). Patients can use these sites to investigate symptoms, find out about prescription drugs, or learn about the latest treatments for what ails them. For example, patients who peruse the Cleveland Clinic's Web site will find easy-to-read reports on literally hundreds of health topics ranging from acromegaly (a hormonal disorder) to yeast infections. Patients can also use the Web to contact others with similar medical conditions, thus forming a worldwide support community.

The Internet empowers patients to take purchasing decisions into their own hands instead of relying utterly on their physicians, but it will not replace the traditional doctor-patient relationship any time soon. Even the best Web sites barely scratch the surface in their descriptions of symptoms and treatments. For example, *drkoop.com* (started by former surgeon general C. Everett Koop) offers fewer than one thousand words on the treatment and management of diabetes and seven hundred words about migraine headaches. Nor is the information provided by medical Web sites necessarily objective. Pharmaceutical manufacturers pay these sites a lot of money (reportedly in the six figures) for the rights to provide content and hot links to other sites. To make matters worse, different sites often give conflicting information. Some sites recommend adenoidectomy to remove enlarged adenoids, whereas others recommend against it. Some sites recommend H²-antagonists to treat heartburn; others mention trying antibiotics. The resulting confusion has become a major headache for physicians, many of whom waste time with patients reconciling conflicting information or explaining why information gleaned from the Internet is not relevant to their case. Sometimes physicians have to perform unnecessary tests just to rule out diagnoses that their patients pulled off the Internet.

Despite the wealth of information available on the Internet, it may be harder than ever before for patients to do their own shopping. One reason is that the information can be confusing; another is that there is so much more to know. Medicine is growing more complex every year. The number of journals covered by *Index Medicus* (the leading index of medical journals) increased by 50 percent between 1968 and 1998. For some diseases, the explosion of knowledge is even more rapid, with five- to tenfold

increases in the number of published research articles on diseases like angina, diabetes, and breast cancer. One area in which innovation has been particularly noticeable is drug therapy. During the 1960s and 1970s, the Food and Drug Administration approved between fifteen and twenty new drugs per year. It now approves as many as fifty drugs per year, each of which has unique therapeutic benefits, interactions with other drugs, and side effects.⁵ Patients must also contend with an increasing pace of innovation in medical devices, surgical procedures, and diagnostic technologies. Thirty years ago, patients could not begin to develop the expertise required to make their own medical decisions. Nowadays, even Marcus Welby might have a hard time keeping up.

Eventually the Internet may help patients ask better questions of their health care providers, but it is doubtful that it will enable patients to bypass their physicians altogether. Patients will continue to rely on their physicians to solve the shopping problem. But this begs two questions. First, how can patients be sure that their physicians will act unselfishly? Second, how can patients be sure they have done a good job of selecting their physician? The answers lie in a more in-depth examination of the shopping problem and the important role of trust.

TRUST AND THE PHYSICIAN-PATIENT RELATIONSHIP

Physician services are experience goods; patients could stand to have a lot of information when shopping for a physician. Is the physician capable? Will the physician act unselfishly? Will the physician do everything possible to effect a cure? These uncertainties are not unique to medicine. There are many situations in which one person, called the *principal*, delegates decision-making authority to another, called the *agent* (in medicine, the patient is the principal and the physician is the agent). It is not unusual for a principal to be uncertain about whether the agent is hardworking, capable, and willing to act in the principal's behalf. Faced with these uncertainties, the principal has two choices: try to use a contract to force the agent to perform as desired or else rely on trust.

Contracts versus Trust

The late James Coleman, a prominent sociologist, described situations involving trust as those “in which the *risk* one takes depends on the performance of another actor.”⁶ This certainly characterizes the physician-patient relationship, where the health of the patient depends critically on

the performance of the physician. Coleman adds that the action of placing trust involves the trustor's voluntarily placing resources at the disposal of another party, without any real commitment from that other party." These real commitments are the essential ingredients of contracts. By implication, contracts are an alternative to trust. Yet the idea of using contracts to bind providers and patients is almost unheard of. Economists have identified a number of limitations of contracting, associated with bounded rationality, hidden action, and hidden information, that make contracts less than ideal for use in medicine.

Bounded rationality refers to the limited ability of individuals to deal with complexity and to precisely define or measure actions and outcomes. As a result of bounded rationality, contracts rarely cover all possible contingencies. *Hidden actions* are those taken by agents that the principal cannot observe. The principal cannot rely on a contract to encourage or prevent hidden actions, and he or she may refuse to contract with the agent if the hidden action can be especially damaging. The principal or agent possesses *hidden information* when the other party does not possess it. When one party knows that the other has "something up its sleeve," it may be reluctant to enter into a contract.

The medical care process and the doctor-patient relationship are replete with bounded rationality, hidden actions, and hidden information. A contract between physician and patient would have to define success and failure. It would therefore need to define sickness and health. It would also need to spell out the various problems that might arise during treatment and sort out those problems that would be the fault of the provider from those that arose for reasons beyond the provider's control. To further confound the contracting problem, patients could take hidden actions (e.g., regular exercise after treatment) that affect outcomes. Patients may also have hidden information (e.g., about other symptoms, or the support of family members) that could affect outcomes. Physicians may also take hidden actions (e.g., take extra time reviewing test results) and may have hidden information (e.g., about the availability of various therapies). For all of these reasons, patients and providers may be unable or unwilling to agree to a contract.

FORMS OF TRUST

Without contracts, patients must rely on trust. Sociologist David Mechanic observes that the trust that patients place in their physicians manifests itself in several forms (1) trust that providers will act unselfishly, putting patients' interests above their own, (2) trust that providers have the

technical competence necessary for proper diagnosis and treatment, and (3) trust that providers can control and coordinate the resources necessary to deliver quality care.⁷

Trust in Unselfishness

Mechanic writes, “The public legitimacy of the medical profession rests substantially on the perception of physicians as dedicated patient advocates,” and that before the advent of managed care “medicine was viewed as a selfless endeavor.”⁸ Patients have always expected physicians, especially PCPs, to be deeply concerned about their welfare. They have had no such expectations about most other agents, including plumbers, insurance agents, or even professors. Patients have had good reason to expect physicians to act unselfishly. Prior to the development of antibiotics in the 1940s, physicians often had little else to offer their patients besides compassion.⁹ As a result, medicine was a “calling” for those who wanted to comfort the sick and dying. For many physicians, medicine remains a calling. While the financial rewards can be great, money is not the only factor that lures people into the profession. Most of the talented young college students who have chosen to become physicians could have fared equally well financially had they become lawyers or consultants.¹⁰

Medical school and residency training reinforce the high ideals of dedication and selflessness. Instructors emphasize the importance of placing the medical interests of patients above the fiduciary interests of hospitals and insurance companies. Medical school graduates take the Hippocratic oath, in which they swear, “In every house where I come I will enter only for the good of my patients.” As managed care has forced physicians to confront economic trade-offs, medical schools have reaffirmed the Hippocratic ideals. Today, most U.S. medical schools offer a course in medical ethics (which many schools require for graduation), and over a dozen schools have medical ethics or bioethics research centers. Professional associations provide the same message. The American Medical Association (AMA) has developed seven Principles of Medical Ethics, which it describes as a “potent, vigorous contract of caring between physicians and patients.” The principles stress dedication, compassion, and responsibility.

Of course, no amount of training can force a physician to behave unselfishly, and such training might even be unnecessary. Some physicians are unselfish by nature. Those who are selfish by nature surely realize that they stand to gain financially by at least appearing to be unselfish. After all, compassion boosts demand. In light of evidence presented throughout this book about how providers respond to financial incentives, it is easy to

be cynical and conclude that a physician's good bedside manner is, like Dr. Welby, just an act. But most patients believe that the compassion is genuine. As Mechanic puts it, "Although there was always some threat that economic incentives might induce the physician to prescribe unnecessarily, . . . there was little ambiguity about the expectation that the physician's loyalty was to the patient."¹¹

Trust in Competence

I once asked my students to evaluate the abilities of their own PCPs. Were they average, above average, exceptional, or perhaps just mediocre? One of the students, a doctor taking time out from his medical practice to pursue a management degree, was very troubled by the question. He felt that because all physicians must pass certification exams and complete rigorous residency training, they were all, in a sense, "above average." (This was eerily reminiscent of humorist Garrison Keillor's claim about the mythical town of Lake Wobegone, where "all of the children are above average"). I think my student meant that all physicians are capable of providing quality medical care. Most patients would agree and would readily accept the medical advice of almost any physician. But most patients also believe that there is a range of abilities, and, all else being equal, they would naturally gravitate toward the best physicians. Patients with serious illnesses may be particularly likely to seek out the best.

Patients search for the best physicians in somewhat the same way that they search for the best providers of other experience goods: by asking others for advice. They may ask friends and relatives for the name of a good PCP, and they usually turn to their PCP for a referral to a specialist. In addition to these trusted sources of subjective information, patients may ask physicians where they went to medical school. Presumably, patients are more willing to trust a graduate of Johns Hopkins or Northwestern University than a graduate of a less renowned institution. Patients prefer specialists to generalists, and, in the words of comedian Jackie Mason, they seek out the "biggest" specialists. Patients prefer teaching hospitals and physicians affiliated with them. In these ways, educational and hospital affiliations serve the same role in medicine that brand names serve in other markets. In effect, Johns Hopkins becomes the brand.

There is an important difference, however, between the way patients shop for medical care and the way they shop for other experience goods. For all intents and purposes, there is no *Consumer Reports* for medical care. It is not as if quality evaluation is unnecessary. To paraphrase one of the nation's leading health services researchers, Robert Brook, quality variation across providers is "immense."¹² (I will have much more to say

about this claim in Chapter 7.) Patients would presumably benefit a good deal if they could identify the best providers, yet they tend to ignore the few independent, objective sources of information about provider quality.

If patients rely on subjective appraisals rather than objective data, how do they know whether they are getting good medical care? I am surprised at how few patients ask this question. Marcus Welby's patients undoubtedly felt that he provided quality care. But what was the basis for their conclusion? Did Dr. Welby's patients take his kindness as evidence of his clinical capabilities? Marcus Welby may have left his patients feeling warm and fuzzy about their medical care, and "warm fuzzies" can certainly contribute toward healing, but there is no substitute for accurate diagnoses, carefully developed treatment plans, and expert implementation of those plans. It is possible that Dr. Welby's patients confused trust in compassion with trust in competence.

Compassion and competence do not necessarily go hand in hand. Consider how these evolved during the 1970s. At that time, prominent observers of the health care system were bemoaning the deterioration of compassion.¹³ Senator Edward Kennedy complained about the rise of specialists, Sidney Wolfe (of Ralph Nader's Public Citizen group) criticized the way physicians wrote prescriptions and used machines rather than speaking with their patients, and *Newsweek* argued that medical education was steering young physicians away from "the role of comforter of the sick towards the job of technologist." Kennedy, Wolfe, and *Newsweek* were concerned that physicians no longer seemed to care about their patients. Sociologists Darryl Enos and Paul Sultan concurred, offering the widely held view that somehow the health care system had strayed from its mission of comforting the psyches of the sick.¹⁴ They quote from a 1927 issue of the *Journal of the American Medical Association*: "One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient." Specialization and the increased reliance on technology certainly seemed to threaten that caring relationship.

But medicine had come a long way between 1927 and 1977. Providers were increasingly able to cure disease, not just care for the symptoms. Rather than tend to the mental state of their patients, physicians could directly attack the root physical causes of their ailments (although it is increasingly recognized that the former can be helpful to the latter). There were dramatic advances in diagnostic imaging, blood testing, and anesthetics. Surgeons were learning how to resection arteries and transplant organs. These advances necessitated intervention by specialists, administration of drugs, and use of costly new machines. As a result, medicine became less personal; physicians became better technicians but had less time for communication; they were more inclined to heal the body than the

mind. It seems that even as patients reaffirmed their trust in the competence of providers, they may have started having doubts about their compassion.

*Trust in the Ability of Providers to Control and
Coordinate Resources*

Compassion and competence are not enough to assure the delivery of quality medical care. To treat many illnesses, physicians must harness a wide range of medical resources, from outpatient diagnostic tests to the full arsenal of services offered by tertiary care hospitals, including nursing, physical and occupational therapy, radiology, pathology, intensive care, drugs, and supplies. As economist Victor Fuchs put it, the physician is “the captain of the team.”¹⁵ Fuchs adds that the physician “is the gatekeeper to the production of medical care. The actual delivery of care is frequently in the hands of other health professionals—pharmacists, nurses, technicians, and the like—but they take their instructions from the physician and report back to him.”¹⁶

Hospital care is the quintessential situation in which the physician is the team captain. Echoing Fuchs’s description of the physician’s leadership role, economist Mark Pauly describes the hospital as the “doctor’s workshop.”¹⁷ Hospital care involves a vast array of highly trained medical professionals, including physicians, nurses, technicians, and therapists. It also involves a wide range of services and technologies, including intensive care, inhalation therapy, magnetic resonance imaging (MRI), and catheters. The attending physicians who take charge of patient care within hospitals make sure that their patients have timely access to the correct people and services. Inappropriate decisions and poor allocation of resources could have dire consequences for the patient.

Patients trust their physicians to control and coordinate the medical resources necessary for high-quality care. Mechanic states, “We take it for granted that the clinician has access to the means to maintain our health.”¹⁸ According to economist and physician Jeffrey Harris, “The patient buys a promise from the doctor to be fixed up. The hospital in turn . . . supplies the necessary inputs to the doctor. . . . There is a strong ethical presumption that the doctor be *left alone* to do whatever is necessary for the patient’s well-being.”¹⁹ According to Harris, this is most likely to occur when physicians are *independent* from the hospitals in which they work.

Physician autonomy has been a defining feature of our health economy for nearly the entire century. Prior to the 1980s, virtually all physicians had a solo practice or belonged to a small group. Although most

physicians today belong to groups, most groups remain small; groups with more than fifty physicians are very uncommon. Only a few physicians, such as medical residents, hospital-based RAP physicians (radiologists, anesthesiologists, and pathologists), and physicians in staff-model health maintenance organizations (HMOs), are employees of hospitals or other organizations. Most physicians still work directly for their patients.

Harris argues that by maintaining autonomy, physicians can control and coordinate resources so as to assure the highest possible quality of care. Harris observes that complex problems frequently arise during a hospitalization, leading to critical demands for resources. At these times, inappropriate decisions about what care to provide and when to provide it could be catastrophic. Under these conditions, it makes sense to assign final decision-making authority to physicians rather than an administrator. Physicians have both superior medical knowledge and greater loyalty to their patients. They place more weight on quality than on cost and are less likely to make choices that would jeopardize their patients' health.

NONPROFITS IN THE HEALTH ECONOMY

The patient's shopping problem does not end with the delegation of decision-making authority to trusted, autonomous physicians. Nor does physician autonomy guarantee that physicians will have total control over the medical care process. Managers of hospitals and other health care organizations make important decisions that ultimately contribute to the quality of care. They hire staff and purchase equipment. They arrange for training and assemble treatment teams. Can patients trust health care managers as much as they trust their physicians? Why should they? After all, there is no Hippocratic oath for managers. Perhaps more significantly, many of the organizations they run are owned by profit-seeking investors, and, as Arrow notes, "The very word profit is a signal that denies the trust relations."²⁰

If Arrow is correct, an easy way for health care organizations to win the trust of their patients is to set aside the profit motive. Many have done so; nonprofit organizations play a central role in the health economy. Hospitals, which account for about 40 percent of the health economy, are predominantly nonprofit. Nursing homes and other long-term care facilities, which account for about 10 percent of the health economy, are a mix of nonprofits and for-profits, and nonprofits have dominant market shares among non-Medicaid nursing home patients. The health insurance and managed care market is also a mix of nonprofits and for-profits. Many prominent for-profit insurance companies, including Aetna and CIGNA sell health insurance. But some of the largest health insurers, including

most of the Blue Cross and Blue Shield plans and the giant Kaiser managed care plans, are nonprofits. Only a few sectors of the health economy, including the prescription drug and medical supply sectors, are dominated by for-profits.

WHY ARE THERE NONPROFITS?

To understand why nonprofits dominate some sectors of the health economy but not others, it is helpful to think broadly about the types of goods and services that nonprofits provide. Some that come to mind are theater productions, food and housing for the homeless, and medical care for the uninsured. These goods and services provide a “community benefit,” that is, they benefit the community as a whole. Almost everyone wants these goods and services to be available even if they do not personally plan to use them. People seem to feel better about themselves and their community when the performing arts are prominent, the homeless are fed and sheltered, and the uninsured receive necessary medical care.

Many for-profits offer goods and services that provide a community benefit. There are for-profit theaters and for-profit day care centers, and for-profit hospitals provide some uncompensated care. But for-profits may not do enough. Unless the government directly provides the needed goods and services, communities must rely on nonprofits to fill the void. In the health economy, nonprofits offer a number of services that provide community benefit. Nonprofit hospitals treat the uninsured and offer unprofitable services such as trauma care. Nonprofit Blue Cross and Blue Shield insurance plans offer reduced premiums on health insurance for high-risk enrollees. Without nonprofits, these goods and services might be unavailable. On the other hand, there is no need for nonprofits in the pharmaceutical sector, where private demand is sufficient to assure a steady flow of new drugs to treat a wide range of diseases.

How can nonprofits afford to offer unprofitable services? The conventional wisdom is that nonprofits rely on charitable contributions. But with a few exceptions (such as children’s hospitals), most nonprofit health care organizations get very little money from charity, often less than 1 percent of total revenues. To help them survive, the government provides tax breaks, including exemption from local property taxes. For-profits complain, sometimes bitterly, that these tax breaks give nonprofits an unfair competitive advantage. Executives at the for-profit Columbia/HCA hospital chain have even refused to use the label “nonprofit,” instead describing nonprofit hospitals as “non-taxpaying” organizations. But the tax breaks do not fully explain how nonprofits survive. One study found that 80 percent of hospitals spend more on community benefits than they receive in

tax breaks.²¹ There must be something besides tax breaks that enables nonprofits to successfully compete head-to-head against for-profits.

We can understand the success of nonprofits by once again invoking the survivor principle. If nonprofits dominate some sectors of the health economy, it follows from the survivor principle that they must provide greater value to consumers. This must be especially true for hospitals, which are predominantly nonprofit, but less relevant to the medical R&D sector, where for-profits dominate. But what is it about nonprofit hospitals that consumers value? To understand how nonprofits create value, we must again turn to economic theory.

THE THEORY OF NONPROFITS

In most markets, for-profits dominate, and self-interest is an accepted norm. The Nobel Prize-winning economist Milton Friedman once stated that “the social responsibility of business is to increase its profits,”²² a sentiment echoed by Michael Douglas’s character Gordon Gecko in the quintessential 1980s movie *Wall Street*. Gecko’s infamous motto was “Greed is good.” There is nothing necessarily incompatible between pursuing profits and serving society’s interests. Most profit-seeking businesses make money by efficiently producing goods and services that meet consumer needs. Of course, nonprofits also wish to efficiently meet consumer needs. The survivor principle tells us that, in most markets, for-profits do it better. The for-profit pharmaceutical industry has done it so well that even in socialist-leaning northern Europe, pharmaceutical manufacturers are among the leading investor-owned companies.

There are several possible reasons that for-profits dominate most sectors of the economy. Perhaps for-profits attract more talented workers and managers and do a better job of motivating them to work hard. For-profits can issue stocks and options, and they base pay on easily measured metrics such as stock market performance. These high-powered financial incentives may be attractive to top workers and managers, and may motivate them not to shirk. On the other hand, health care can be a calling to workers and managers, not just physicians. As a result, nonprofits may be able to attract their share of talented and self-motivated workers and managers.

Perhaps for-profits use their superior access to capital markets to grow, innovate, and improve efficiency. Nonprofits must rely on debt markets and often must work with government agencies that issue their bonds. This puts a drag on their access to capital. Quick access to equity capital (i.e., stock) enables for-profits to more rapidly expand into new markets, launch new creative ventures, or reorganize in the face of operational in-

efficiencies. It is doubtful, for example, that Amazon.com could have rapidly expanded its product line and distribution network without its quick access to equity capital.

The ability of nonprofits to attract good managers partially explains why nonprofits are able to keep up with for-profits. But given the for-profit advantage in attracting capital, one wonders how nonprofits can outperform for-profits. Nonprofit supporters say the key is quality.

Nonprofits and Quality

Certainly, quality is more important in the health economy than in most other sectors of the economy. But other markets where consumers demand high quality, such as the automobile market, are dominated by for-profits. The difference is not so much whether consumers want high quality but whether they can figure out if they are getting it. When consumers are well-informed about quality, the profit motive works to their advantage. They can patronize those firms that best meet their needs. The problem is that profit-driven sellers may provide the wrong products, at substandard quality, *in those markets where it is difficult for consumers to evaluate their own needs and quality is hard to measure*. This is why patients trust their PCPs to help them make the right purchasing decisions. But patients cannot be certain that their PCPs will make the best choices, and patients make some choices on their own, such as when they select a nursing home. It seems that patients can use additional assurance when assessing their needs and selecting a provider. They might prefer a provider whom they believe is unlikely to take advantage of them. Nonprofit providers fit the bill.²³

The Nonprofit “Assurance”

With few exceptions, nonprofit firms may not distribute their earnings to managers or owners. A “charitable” nonprofit that violates this restriction faces fines and the loss of its tax-exempt status.²⁴ Unable to personally prosper from their firms’ profits, managers of charitable nonprofits presumably have less incentive to cut costs by reducing quality.

To illustrate how this difference in incentives plays out in practice, consider the use of catheters. U.S. health care providers use 200 million catheters annually. Providers can employ a variety of techniques to assure the safe use of catheters, including the purchase of “safety catheters,” which, among other things, are impossible to reuse. But these can cost five times more than standard catheters. We might expect profit-driven managers to

back off on this expense, reasoning that patients would never find out what kinds of catheters are used.²⁵ Nonprofit managers, who are less likely to hew to the bottom line, might be more likely to consider incurring these expenses.

Hospitals and other health care organizations have many other opportunities to shirk on quality in ways that patients cannot easily detect. Here are just a few examples:

- *Staffing levels.* Does the hospital have enough nurses, technicians, and other personnel on staff to assure timely, continuous care, or are the staff spread so thinly that quality is compromised? Unless patients have enough experience to know what the “right” level of staffing is, they are unlikely to detect a staffing shortage unless it becomes serious.
- *Staff training.* Does the hospital rely excessively on nurse aides to perform tasks that should be done by registered nurses? Is the medical staff certified in the appropriate specialties? Patients are unlikely to check up on credentialing and even less likely to know what constitutes appropriate credentialing.
- *Equipment.* Does the hospital use state-of-the-art equipment that is well maintained, or does it use outdated, faulty equipment that limits diagnostic accuracy and therapeutic quality? Patients would be at a loss to determine if the medical equipment is appropriate and functioning properly.
- *Utilization.* The hospital may cut back on services to hold down costs and boost profits. Patients may not know the correct level of services and therefore may not figure out if they are being short-changed.

Patients who cannot evaluate these *hard-to-measure attributes* might reasonably believe that nonprofits will place quality above profits. This gives nonprofits the edge they need to survive in competitive markets.

Are Nonprofits Really Nonprofit?

The theory of nonprofits states that they will not exploit their uninformed consumers by shirking on quality. But in several studies published in the 1970s, economists suggest that nonprofits do not always serve the interests of consumers. For example, Joseph Newhouse and others speculate that nonprofit managers overinvest in staffing and costly medical technology to maximize their prestige.²⁶ Mark Pauly and Mark Redisch posit that nonprofit hospital managers give de facto control to physicians, who run the hospitals to maximize their own incomes.²⁷ (Note how this theory ascribes

the profit motive to physicians.) Through these and other arguments, many have wondered if nonprofits are any different than for-profits. As one letter writer to the trade magazine *Hospitals* put it: “Don’t tell me a nonprofit hospital doesn’t make a profit. The only answer is that none of the profit goes to any member of the board, etc. And if a nonprofit hospital is not making a profit, something is wrong with the management.”²⁸

If nonprofits are making a profit, what do their managers do with it? Invest in expensive equipment so as to maximize prestige? Turn the profits over to physicians? Purchase mahogany desks and attend seminars in the south of France? There is probably a little bit of each going on, but I doubt if there is a lot. If there was, one would wonder why a church or community organization would establish a nonprofit hospital. I think it is reasonable to conclude that managers of nonprofits want to serve their communities. Even so, they must first assure the financial viability of their organizations. Sometimes this means that managers must emphasize the bottom line.

Many nonprofit providers operate in fiercely competitive markets, and, as a result, their managers face difficult choices. They can pursue charitable goals but jeopardize the financial health of the organization, or they can mimic the actions of for-profits but fall short on fulfilling the nonprofit mission. Nonprofit managers are likely to strike a balance between the two. As long as the organization’s finances are healthy, managers can pursue unprofitable activities that fulfill the mission, while maintaining prices below what the market will bear. But if the organization’s finances are not healthy, the mission may have to take a backseat to financial considerations. At the same time, managers may have to increase prices closer to the profit-maximizing level. This is known as “cost-shifting.”

Cost-Shifting

Until the early 1980s, the managers of nonprofit health care organizations were under little financial pressure. Market conditions enabled even badly managed hospitals to survive. Private insurers either paid whatever price the hospital charged or paid the hospital for its costs plus a predetermined profit margin. Government insurers—Medicare and Medicaid—also paid on a cost-plus basis.²⁹ As a result, hospitals that boosted quality could count on getting reimbursed for most or all of the expense. Those that provided unprofitable services or cared for the uninsured covered the expenses by charging higher prices to everyone else.

The idea that hospitals could raise prices to their privately insured patients to generate the revenues necessary to pursue their mission became known as “cost-shifting.” Insurers first worried about cost-shifting in the

early 1970s, when some state Medicaid programs reduced their payments to hospitals. Hospitals responded by raising prices to privately insured patients.³⁰ Concern about cost-shifting intensified in the early 1980s, as more states cut their Medicaid payments. In 1984, the Health Insurance Association of America (HIAA), which represents mainly small indemnity insurers, claimed that shortfalls in public sector funding were causing hospitals to shift nearly \$9 billion annually onto private payers. The HIAA called for increases in Medicare and Medicaid payments.

Recent research suggests that managed care has put an end to cost-shifting.³¹ A hospital that raises its prices to make up for cutbacks in government payments risks exclusion from managed care networks. For example, William White and I find that the hospitals hardest hit by Medicaid cutbacks actually lowered prices to privately insured patients, apparently in an effort to increase managed care enrollments. Unable to cost-shift, hospitals must find other ways to cope. We find that hospitals reduced service levels and, in the extreme, closed. In a related study, Jon Gruber finds that hospitals in competitive markets have cut back on charity care.³²

WHAT DO THE FACTS SHOW ABOUT NONPROFITS?

There has been considerable research about the differences in quality between nonprofit and for-profit providers. The findings are mixed. An Institute of Medicine report from 1986 finds no consistent evidence of lower quality at for-profit hospitals, but it does find that “most studies on quality of nursing home care tend to favor the not-for-profit mode.”³³ Nonprofits tended to have better staffing and better food and were more likely to comply with regulations. Almost all of the worst nursing homes were for-profits.

In his studies of nursing homes and facilities for the mentally handicapped, Burton Weisbrod focuses on hard-to-measure attributes such as the use of sedatives and periodic review of patient needs.³⁴ He finds that church-owned nonprofits are particularly more likely to provide higher levels of these attributes. Weisbrod also finds that private-paying patients endure long waiting lists for admission to nonprofits. Private-paying patients have immediate access to for-profits, which tend to admit mostly patients covered by Medicaid. This supports the view that consumers believe that nonprofits offer superior quality, even if they cannot measure it.

A study team led by Frank Sloan examines patient outcomes and finds that Medicare patients undergoing major surgery at nonprofit hospitals and for-profit hospitals had similar two-year survival probabilities: 69 percent at for-profits and 67 percent at nonprofits.³⁵ Although this differ-

ence of 2 percentage points may be large enough to cause concern among patients and policy makers, the margin for error in Sloan's estimates is roughly 5 percentage points, so it is not statistically meaningful.

One recent study suggests that for-profit MCOs deliver a lower quality of care than nonprofits.³⁶ The study compares a number of quality indicators, including immunization rates, prenatal care rates, and administration of beta-blockers following myocardial infarction. For-profits consistently scored lower on these indicators. Curiously, for-profits and nonprofits had similar costs. One cautionary note about the study: the authors fail to control for many factors that might influence their measures of quality, including MCO location and enrollment characteristics. Thus, the results are suggestive of quality differences but are far from conclusive.

There will undoubtedly be more studies of the role of the profit motive in medicine, particularly in MCOs. The popular image of MCOs is that they are investor-driven organizations out to make a quick buck at the expense of consumers. But this hardly describes the first managed care plans. On the contrary, these mainly nonprofit plans offered consumers a way to save money while keeping well. The next chapter examines the rise of managed care.