9

Physicians' Conflicts of Interest in HMOs and Hospitals

Marc A. Rodwin

Much scholarly attention has been paid in recent years to physicians' conflicts of interest that arise from incentives to increase services. One familiar example is physician self-referral.[1] Congress has even started to regulate such conflicts. But much less attention has been given to conflicts of interest arising from incentives to decrease services. This is a newer problem, but in an era of cost containment it promises to be potentially more significant. This chapter examines the origins and significance of incentives for doctors to decrease services in HMOs and hospitals and documents how these incentives operate. It shows that such incentives are becoming pervasive and create serious conflicts of interest. It explores their dangers and argues that they can and should be dispensed with, both because they place patients at risk and compromise physicians and because existing institutions and laws are an inadequate safeguard.

My argument assumes that physicians have an obligation under medical ethics since they take the Hippocratic Oath to act in the interest of patients, indeed to make the patient's interest their first consideration.[2] It also relies on the concept of conflict of interest as used in the law, which has two ingredients: (1) an individual with an obligation, fiduciary or otherwise, and (2) the presence of conflicting interests that may undermine fulfillment of the obligation. Physicians have a conflict of interest when their interests or commitments compromise their loyalty to patients or the exercise of independent judgment on

their patients' behalf. Two main types exist: (1) conflicts between a physician's personal interests (often financial) and the interests of the patient and (2) conflicts that divide a physician's loyalty between two or more patients or between a patient and a third party (or society).[3] My focus is on financial conflicts of interest.

As defined in law, conflicts of interest are distinct from breaches of obligation. Although law or ethics may require not entering into conflict-of-interest situations, this is done only to prevent acts wrong in themselves. Conflicts of interest can influence action, but they are not acts and do not ensure disloyalty. They do, however, increase the risk that physicians may abuse their trust. The least serious possible breach entails professional neglect: A compromised physician may not perform at his or her customary high level of competence, diligence, or effectiveness. At worst, physicians may knowingly exploit their position or harm patients. Extreme disloyalty obviously presents the more dramatic danger and is easier to identify. Situations that compromise independence, loyalty, or judgment more subtly or even unintentionally occur more frequently and are harder to recognize. Yet even compromised clinical judgment can bias physicians' advice and imperil patients.

Withholding Services: An Emerging Problem

Many policies that give physicians incentives to withhold services originate from private institutions and government agencies as responses to the distortions of fee-for-service medical practice.[4] A simple syllogism has governed policy: Giving physicians incentives to perform services produces undesirable effects. Ergo, eliminate these problems by giving physicians incentives to refrain from performing services—overuse of services. Only one thing was overlooked: Rewarding physicians for using resources frugally does not eliminate financial conflicts of interest. It creates new conflicts with different effects.

Attempts to limit services are often born of good intentions: to eliminate waste and to limit expenditure on medical care, thereby making it more affordable. We need to limit medical care expenditures because we seek goals besides health, and we do have budget constraints. But when we need medical care, we generally don't want our limited personal income to keep us from it. Most people do not want to pay for medical care out of pocket. Likewise, providers would prefer to avoid depending on out of pocket payment. So we spread the responsibility and financial risk through private insurance and government programs. This third-party involvement weakens incentives for individuals to monitor the costs of medical care and for providers to use or recommend services in a frugal way.[5]

Insurers and government programs now bear most of the direct financial burden of health care. As health care expenditures rise, they must raise premiums or taxes to pay the costs. And here, as everywhere, there are limits. As costs rise, more employees and employers limit their insurance coverage or do not purchase or provide insurance. And if taxes rise too much, the public will exert pressure on government.

These trends have prompted insurance companies and third-party payers to limit the outlays to HMOs and hospitals. Medicare now pays most hospitals a set fee per inpatient patient, depending on the diagnosis.[6] Sometimes Medicare pays HMOs through a similar fixed-payment system. In such arrangements the entity bears a portion of the financial risk.

HMOs and hospitals often pass the buck. They force physicians to carry some of the financial risk for recommending tests, performing medical procedures, and making referrals. Proponents say these incentives will persuade physicians to cut out wasteful tests and procedures, so everyone will benefit, even patients.[7] But the incentives discourage use of resources in general, resources that can also benefit patients.[8] Paying physicians to act as cost-control agents for third parties pits the interests of physicians against those of patients. It gets physicians to consider their own financial interests in balancing the concerns of the payers and patients. And it compromises the ability of physicians to offer patients disinterested professional advice.[9] Yet HMOs and hospitals now do precisely that. To see how this occurs, consider some of the incentive plans that HMOs and hospitals now use.

HMOs and Financial Incentives

HMOs provide comprehensive medical care to subscribers, using a closed panel of physicians. Members pay a fixed monthly premium and only nominal fees for services rendered (copayments).[10] HMOs perform two distinct functions: They insure subscribers by guaranteeing comprehensive medical care, and they deliver these services. Medical providers that charge for each service have an incentive to perform many services. HMOs do not. They incur costs by performing services but do not increase their revenue. They have an incentive to minimize services. Federal law and policy have promoted HMOs to increase public access to reasonably priced medical care; to reduce excessive, inappropriate ordering of medical services; and to reduce unnecessary federal spending.[11]

The first HMOs, now called "staff model HMOs," owned medical care facilities and employed a group of physicians on salary. But changes in health care markets spawned several variations. For example, group model HMOs contract with an organization that employs the physicians. "Network model HMOs" contract with two or more physician groups. Independent practice association (IPA)

HMOs contract with the IPA, which, in turn, contracts with physicians who have their own practices, offices, and non-HMO patients. Usually their primary care physicians are paid either a fee-for-service or by "capitation," that is, a set fee for each member for which the physician is responsible.[12]

The preferred provider organization (PPO) is a hybrid between IPA HMOs and traditional indemnity insurance plans that reimburse beneficiaries up to a set level for medical expenses they incur. Subscribers have the choice of receiving medical care from a closed panel of physicians, as in an IPA-style HMO with only nominal copayments. They can also receive treatment from any other physician they choose, as in indemnity insurance, if they make a significant copayment (usually about 20–30 percent of the fee). Insurance coverage kicks in only after the patient has paid a deductible.[13]

HMOs and PPOs are managed-care providers. They attempt to control standards of practice and referrals to specialists and to hospitals. The term "managed care" refers to HMOs, PPOs, and, increasingly, to most indemnity plans with management structures that control practice standards and referrals.[14] Managed-care providers attempt to organize systematically the use of medical care and the manner in which it is delivered in order to achieve explicit objectives. The objectives can range from reducing expenditure and the use of services to expanding the range of services provided or improving patients' quality of life. Managing care requires restricting patients' choice of providers and medical options and physicians' clinical autonomy. Both the physician and the patient are managed.

The management is usually done by physicians, nurses, and trained administrative staff. It involves the use of medical protocols to assess clinical decisions, the use of primary care physicians as gatekeepers to control referrals to specialists, individual case managers to coordinate medical care in complex and expensive cases, the use of retrospective reviews of utilization of services and denial of payment for inappropriate services, and a host of other devices. The crucial factor is that choices traditionally made exclusively within the patient–physician relationship are explicitly controlled by organizational and institutional arrangements.

Staff model HMOs are a classic example of managed-care providers because such HMOs can effectively exercise control over all physicians they employ in a single location. However, the advent of utilization review, which allows insurers to monitor the behavior of physicians, now makes it possible to manage care in other ways as well. Insurance companies now offer preferred provider plans that give patients some choice of physicians, with discounts if they choose preferred providers. To be preferred, a physician must practice in what the insurance company deems to be a cost-effective manner. Here we focus on HMOs. But physicians working for other managed-care providers often face similar conflicts of interest.

Over time, physicians have developed practice styles based on fee-for-service incentives that encourage high utilization of medical services.[15] These practice styles are now deeply ingrained; many people believe they persist even when physicians are paid by salary. To counter them and reduce inappropriate use of medical services, HMO managers use several administrative techniques. They make primary care physicians gatekeepers who coordinate medical treatment and approve referrals to specialists. They monitor physicians' clinical decisions, determine their appropriateness, and deny payment for unnecessary medical care. And doctors often need to receive administrative authorization before admitting patients to hospitals.

HMOs and Physician Risk Sharing

Most HMOs also use payment incentives to tie the interests of physicians to the financial goals of the organization. They frequently make physicians—particularly primary care physicians—bear part of the financial risk for providing services, so that their incomes decrease as the cost of treating patients rises.[16] HMOs and physicians carry two kinds of risk for the cost of medical care: one for the clinical decisions physicians make and another for the health status of their patients. They can reduce their exposure by reducing the amount of services provided or by choosing healthier patients (who are less expensive to treat). Such incentives encourage physicians to ask themselves "How much will this cost me?" before providing or recommending medical services. As a result, physicians may recommend too little medical care.

Physicians can bear financial risk in an almost unlimited number of ways. But all risk-sharing plans rely on common approaches. One way is to compensate physicians by capitation. In this system, doctors' incomes are fixed by the number of patients they have; providing additional services to these patients reduces their time and resources.

HMOs often link risk-sharing payment to the primary care physician's role as a gatekeeper. Gatekeepers are supposed to coordinate medical care to eliminate unnecessary services and properly channel appropriate ones. They determine what specialty care patients receive, and some HMOs will not pay for or provide services without their approval. Many HMOs make primary care physicians responsible for part of the costs of specialty care, laboratory tests, and hospital care. This gives them an incentive to reduce their referrals. Without such incentives, primary care physicians, paid by salary or capitation, have an indirect incentive to substitute treatment by specialists for work they could perform themselves.

HMOs can, and often do, make primary care physicians bear risk for referrals whether they are paid by capitation, salary, or fee-for-service. Many HMOs withhold part of the basic payment to primary care physicians and make them

forfeit the payment if HMO costs exceed targets. HMOs also often pay a bonus to physicians who refer frugally. Frequently HMOs use both bonuses and financial penalties. These two approaches are often contrasted as a payment and a penalty, a carrot and a stick. In both cases, physicians can increase their income by making clinical decisions that reduce services and lower the costs of the HMO. Sometimes the HMO looks only to the use of services and referrals of physicians individually. At other times, HMOs base their bonus payments on the performance of a group of physicians or on the HMO's profitability.[17]

Risk-sharing is the norm in HMOs.[18] A 1987 study by the Group Health Association of America, an HMO trade association, found that 85 percent of HMOs used financial incentives for physicians. Approximately two-thirds withheld part of physicians' fees, salary, or capitation payments—usually not more than 20–30 percent of the base pay—and returned all or part of the funds withheld later, depending on the amount and cost of referrals.[19]

A study of HMOs in Medicare's risk-contracting program found that 29 percent shared both profits and losses with physicians, 21 percent shared only profits, and 20 percent shared only losses.[20] Most studies estimate that 13–18 percent of HMOs distribute funds based on individual physician performance. But one study found that at least 60 percent of HMOs used individual physician performance, at least in part, to determine the level of incentive payments.[21]

Elements of Risk Sharing

Five features of risk-sharing plans limit the financial risk and resulting incentives: (1) the risk pool size; (2) whether physicians risk loss or stand to profit; (3) the services for which physicians bear risk; (4) the extent of risk sharing and whether there is any cap on potential profit and loss; and (5) how profits or losses are distributed among physicians.

Risk Pool Size. HMOs can force physicians to bear risk for their use of medical referrals alone or pool the risk among other physicians in their department, health center, or some other unit. Physicians who bear the risk individually sustain the consequences of their clinical decisions. Those who bear the risk collectively see the consequences of their actions spread among the group and share the consequences of their colleagues' actions. The greater the number of physicians in a risk pool, the smaller each one's pro rata share. The larger the group, the less financial risk physicians bear for their own decisions.

Some HMOs spread financial risk based on a combination of individual and collective risk pools. For example, they may create two risk pools: one collective and one for each physician. A surplus in the collective risk pool will be distributed, but only to physicians who have a surplus in their individual risk pools.

Profit and/or Loss Sharing. HMOs can share both loss and profit. Many HMOs reduce physicians' income when the volume of the services and referrals exceeds a target. A typical arrangement is to set a base payment (either salary, capitation, or fee-for-service) and to hold a portion of this payment (typically about 20 percent) in an escrow account. The funds set aside are released to physicians at the end of the year only if the individual physician or the physicians as a group did not provide more than the projected number of services. If physicians used more services than expected, the HMO draws on the withheld funds to cover the increased costs. The greater the amount by which services performed exceed the target, the greater the proportion of the withheld funds the HMO uses to cover its costs.

HMOs use similar strategies for sharing profits. They often provide bonuses when the volume of physicians' clinical tests and referrals falls below a target. HMOs frequently rely on both carrot and stick approaches. They establish a base pay and set aside a percentage that will cover losses from high use of services. If use of services is lower than targeted, they also pay bonuses.

Risk Sharing for Different Services. HMOs can make physicians bear risk for the cost of several different types of services: primary care, diagnostic tests, specialty care, drugs, hospitalization, and nursing facilities. Some HMOs give physicians the option of assuming risk for certain services.[22] HMOs usually place physicians at risk for the cost of some services but not others. They can also establish one kind of risk sharing for one service and a different kind for another service. The more services for which a primary care physician is responsible, the more risk born and the stronger the incentive to reduce services.

Limiting Risk and Profit. Usually HMOs limit the risk born by physicians, establishing a threshold for loss and placing caps on the profits that can be earned. Stop-loss and profit-cap provisions help temper the effect of incentives. The aim is to prevent the cost of caring for seriously ill patients from placing undue financial pressure on physicians and to prevent physicians' desire for personal gain from unduly tempting them to reduce medical services. Typically, HMOs limit the risk of loss or profit to 20 percent of the base income, but policies vary. One approach is to set a cap on the loss for each patient. Another caps each doctor's financial loss for his entire pool of patients. A third varies each physician's upper limit on financial risk for different kinds of services, setting one limit for referral services, another limit for hospital services, and so forth.

Distribution of Profit and Loss. HMOs can distribute the profit or loss to physicians in several ways. Most risk-sharing plans concern primary care physicians. However, specialists can share in the savings or deficits.[23] Risk-sharing plans can distribute the profit or loss based on individual or group performance, or a

combination of both. Distributions may also reflect the number of patients, the physician's seniority in the HMO, or stock ownership. Profits are distributed quarterly or yearly, or on retirement, as part of a deferred compensation plan.

The more frequently HMOs evaluate and reward physicians, the fewer clinical decisions and patients are involved. And this links financial reward closely to individual clinical choices. In addition, when physicians receive payments soon after taking specific actions, there is also a clear link between performance and reward. The more directly rewards are linked to action, the stronger the inducement.[24]

Some Risk-Sharing Plans

As an example of an HMO risk-sharing plan, consider United Healthcare in Seattle, Washington, operated by the Safeco Insurance Company.[25] United Healthcare paid each primary care physician a set monthly fee for each patient to compensate them for providing or arranging all medical care. At the end of the year, the doctor shared any remaining funds with Safeco and was partially responsible for any deficit. But risk sharing was limited. Depending on the size of the physician's practice, the risk of loss was capped at 5–10 percent of reimbursed charges. Profit sharing was limited to 10–50 percent of reimbursed charges. In addition, to prevent distortions due to a few patients needing unusually expensive medical care, each physician's risk was limited to $5,000 per patient per year. Physicians paid on a fee-for-service basis (i.e., specialists) had a separate incentive plan. If United Healthcare ran a deficit, payment could be lowered to 85 percent of the ordinary fee. With a surplus, payments would be adjusted upward to 105 percent of ordinary charges. In 1979, slightly over half of physicians realized year-end surpluses. The average was $413 and the highest surplus was $5,000. The average deficit was $169 and the highest was $1,833. Despite these financial incentives, the HMO was unsuccessful and eventually went out of business.

Another such plan is Bluechoice, owned by Blue Cross/Blue Shield of Missouri.[26] As of 1988, Bluechoice made primary care physicians gatekeepers, responsible for coordinating all specialty care. It paid primary care physicians by capitation, and provided financial penalties and rewards to encourage them to reduce the amount of services they provide. Bluechoice withheld 20 percent of each physician's capitation payment and placed it in a pooled risk fund (PRF). The PRF was used to fund a portion of catastrophic patient care (i.e., care costing over $50,000). It was also used to fund unanticipated costs of hospital and specialists' services. Unused funds were returned to contributing physicians.

Bluechoice created a specialty comprehensive referral fund (CRF) for each physician's office. This fund was used to pay for the cost of each office's services

provided by hospitals, specialists, and laboratories. The funds placed in the CRF were based on the anticipated usage of these services by each physician's patient group calculated using the patient's age, gender, and other factors. If a physician exhausted his CRF, the 20 percent withheld from that physician's office, set aside in the PRF, was used to cover the costs. If the sum was exhausted, remaining PRF funds, contributed by other physicians, were used. If a surplus existed in the CRF at the end of the year, primary care physicians split the surplus with Bluechoice, up to a maximum bonus of $50 per patient per year.[27] Depending on the HMO's finances and the clinical decisions made by physicians, Bluechoice paid primary care internists between $55,334 and $185,426.[28] The clinical decisions made by physicians on the scope and amount of services and referrals provided to their patients could increase their net income more than threefold.

The Physician's Perspective

In effect, doctors paid under risk-sharing arrangements participate in a joint venture with HMOs. By keeping costs down for the HMO, doctors promote their own financial well-being. Dr. Robert Berenson, an internist, explained the effect well: "Long accustomed to providing too much . . . medical care, physicians now have powerful incentives to withhold [it]."[29] This is because risk sharing offers doctors no economic incentive to be aggressive in providing services and even reduces their income as they increase the number of tests and procedures they order. Doctors make daily clinical decisions that can reduce the medical risk to patients but increase the costs of HMOs. Under risk-sharing arrangements they may be reluctant to do so. From the doctors' perspective, they are paying for part of every consultation, test, ancillary service, or hospital care a patient receives. Their share may be small, but the incentive can change perceptions.

Berenson recounts the change in attitude he underwent in caring for an elderly woman with a rare form of cancer when he was paid under risk-sharing arrangements. She represented an economic loss, and he "ended up resenting the seemingly unending medical needs of the patient and the continuing demands . . . [of] her distraught family."[30] The problem was not the patient's requests or performing the work. But under the risk sharing system, very sick patients devastated his accounts. Risk sharing makes "patients who come in often for care from me . . . or who want a referral for specialty care begin to look like abusers."[31] Many doctors adjust to these new financial rules, but others don't. Dr. Devra Marcus, a Washington internist, left her HMO practice just after joining. Her first two patients were diabetic, and she referred them to an ophthalmologist to check for retinal changes because diabetes can lead to blindness if not treated. Following these referrals, a colleague told her that her use of specialists

would reduce her referral fund and could reduce her salary. "I pulled out. I didn't want to think about whether I would be losing money if I ordered an ophthalmologic consultation. I wanted to think about what was best for the patients."[32] Something is perverse in a payment system when it makes well-intentioned physicians consider sick patients they treat as a drain on their income.

Gauging the Effect of Financial Incentives

There is little hard data linking the effects of financial incentives to physicians' clinical decisions. One study found no relation between distribution of risk-sharing bonuses and physicians' referral decisions. But paying physicians by capitation led to lower rates of hospitalization, and placing physicians at financial risk was associated with lower rates of outpatient visits.[33] HMO managers generally believe that withholding funds and bonuses affects doctors' clinical decisions. A 1989 survey of the managing directors of 643 HMOs found that nearly four-fifths believed that withholding 5–30 percent of payment would affect the volume of tests ordered and elective hospitalization, and nearly one-half believed that bonuses of 5–15 percent would also affect clinical choices. Over one-third expressed concern at withholding payments between 15–30 percent. But managers in general believed that the incentive payments used by other HMOs were more worrisome than the incentives they used.[34]

As we shall see in more detail later, several patients have sued HMOs, claiming that risk-sharing incentives led physicians to withhold necessary services to their detriment. And many anecdotes suggest cause for concern. In an article on HMOs "earning more for doing less," the Associated Press reported the example of Dr. Denise Hart, a nephrologist. She recalls a patient who had kidney failure and spent the night in a hospital without dialysis or seeing a nephrologist because the HMO primary care physician denied authorization even though the emergency room physician informed him of the urgency. During the night the patient suffered from cardiac arrest and had to spend a week on a respirator.[35]

The *Chicago Tribune* reported the case of Daniel Bohnen, who was accidentally shot in the face with shotgun pellets. Shortly before he was scheduled for emergency surgery to repair his right eye, the HMO business office called and insisted that a consultant confirm the need for surgery. The surgeon warned the HMO that a delay would endanger Daniel's vision, but the HMO insisted on the second opinion, in the consultant's words, "to save money." The result: Daniel lost vision in one eye, and the HMO later paid Daniel's parents $1.2 million to settle the malpractice suit they brought.[36]

Presumably, HMO doctors serving as consultants, reviewers, and gatekeepers will place the patient's interest first, but the payment mechanism can define loyalties. Dr. J. Kristin Olson-Garewal, former medical director of University Family Care, an HMO in Tucson, Arizona, told of her role convincing doctors

to substitute less costly medications. Asked if this might conflict with her obligations as a physician she replied, "When I became the medical director, I represented the payment entity."[37]

In the absence of definitive data on the effect of risk-sharing incentive payments, we must draw inferences from what we know about the effects of incentives in general. In theory, plans with strong financial incentives for reducing services are more likely to compromise physicians' loyalty to patients than plans with weak incentives. Physicians face greater temptations from strong incentives. And incentives are strong in several circumstances: when physicians bear risk individually or in a small risk pool, when they are at risk for expensive services, when stop-risk protection starts at a high level, when HMOs link penalties and bonuses directly to individual clinical decisions, and when physicians risk losing or gaining a large percentage of their baseline income.

While it is relatively easy to isolate factors that affect the financial risk of physicians, it is hard to determine the dollar value to a physician of any incentive arrangement. Dollar value depends on several factors noted earlier: the size of the risk pool, the extent of risk sharing and stop loss, the services for which physicians bear risk, how the profit or loss is distributed, and whether there is profit and/or loss sharing.

Another reason why dollar value resists definition is that risk-sharing incentives do not reward physicians each time they forego a service or referral. Indeed, it is impossible to identify all the possible services physicians avoid. Nor do risk-sharing plans penalize physicians for each service they use. Rather, they pay out benefits or impose penalties only if doctors perform more than a specified number of medical procedures or make more than a specified number of referrals. Even under incentive plans in which physicians bear risk individually, physicians cannot know whether or not they will be penalized until after tallying all their referrals, their patients hospitalized, their orders for tests, and so forth.

Even when a physician's utilization of services exceeds a threshold that triggers the financial incentive, the cost to the physician of a decision depends on the total volume of utilization. The same clinical decision has different financial implications, depending on the choices the physician makes for all patients before and afterward. When risk-sharing plans spread risk among a group of physicians, it is very difficult, if not impossible, for physicians to predict the cost to them of performing a service. Together, these factors make it hard to determine precisely how strong an incentive there is for physicians to withhold a particular service.

Still other factors—for example, the fees, salary, or capitation rate paid by an HMO—can affect how physicians will respond to risk sharing. If the base level is low, physicians will be more sensitive to financial incentives than if the base

level is high and allows them to earn a comfortable income without profit sharing or despite any financial penalties.[38] Some physicians also work exclusively for an HMO, while others do so only part-time and earn income from outside practice. The more a physician relies on an outside practice for income, the smaller the bonus or penalty he will receive from the HMO and the less sensitive he will be to the HMO's financial incentives.

Despite the complexities of determining the effects of particular clinical choices under risk-sharing plans, physicians know that it is generally in their financial interest to limit the number of procedures, tests, and referrals. And even when the risk borne by individual physicians is small, incentives may create group pressure to use resources frugally, with ripple effects that spread beyond those caused by the financial incentive alone.[39] Most HMOs inform physicians when they deviate from the norm and use services heavily. The message is reinforced, explicitly and implicitly, on a regular basis. Physicians are also aware of the total amount of income they can gain or lose. One suspects that doctors contracting with or employed by an HMO will, over time, develop an intuitive sense of what style of medical practice best serves their interest. Their practice style will reflect the incentives offered by the HMOs.

Although economic theory suggests that strong incentives to reduce services place patients at greater risk than weak incentives, the effect of small incentives may outweigh their size, especially when applied to every clinical decision physicians make. Even small rewards can shift perceptions and attitudes. Payment also has symbolic value. It can bond physicians to payers, producing commitments disproportionate to the sums of money involved.

Hospitals and Financial Incentives

Until recently, hospitals had strong incentives to increase the number of services they provide and to disregard costs, since they were paid based on their cost of providing services. Medicare was particularly generous. In reimbursing hospitals for their costs, which included overhead and capital, Medicare fueled expansion and high utilization of services and technology.

But that has changed. Since 1983, Medicare has paid hospitals a set fee per patient, depending on the principal diagnosis. This prospective payment system uses what are called "diagnosis related groups ("DRGs") to determine fees. The DRG payment is based on the average cost of treating the patients in each group of diagnoses.[40] Medicare makes an exception for unusually high-cost patients, paying one-half of the cost beyond the DRG payment. But in general, hospitals are at risk for the full costs of medical care. If their costs are, on average, higher than their revenues, they will run a deficit. If, on average, hospitals keep their

costs lower than revenues, they will profit. These changes reverse previous incentives and make it in hospitals' interest to use resources frugally. Medicaid and private insurers have not yet adopted similar fixed payment systems. But they now monitor hospital charges closely and refuse to pay for services they believe are inappropriate or could be just as well delivered at lower cost outside the hospital.

The economic interests of hospitals and physicians are often at odds with each other.[41] Most physicians are still paid for each service and have an incentive to increase services. Physicians are not responsible for hospital costs, although they contribute to them by using hospital facilities and ordering tests. Routine clinical decisions, such as when to discharge patients, also affect costs. In response, hospitals now encourage physicians to take account of the hospitals' financial interests in practicing medicine. Hospitals often inform physicians of treatment costs, especially when physicians make clinical decisions that cost the hospital more than the average amount.[42] When they do, studies show, doctors order fewer and less costly diagnostic tests.[43] Hospitals monitor physicians and use persuasion to encourage frugality.

Hospitals have also devised programs that encourage physicians to reduce the services they provide. These include physician investment and self-referral in joint ventures, hospital purchases of physicians' practices, and physician recruitment and bonding programs. Variations of these practices include plans that make direct incentive payments to physicians, joint ventures with hospital staffs, physician ownership of hospitals through limited partnership, and economic credentialing.[44]

The most infamous hospital incentive plan is one devised for doctors by the Paracelsus Healthcare Corporation at its Hollywood Community Hospital in 1985. The hospital shared with physicians the difference between hospital charges, based on costs, and the Medicare DRG payment. What made the Paracelsus strategy different from others is that any resulting profit was shared with the physicians if they provided less treatment and discharged patients earlier. The greater the hospital profit, the larger the physician incentive payment. Critics charged that the Paracelsus plan provided too strong an incentive to withhold appropriate medical care, and it was discontinued after government investigations.[45] Congress later enacted legislation that prohibited hospitals receiving Medicare funds from making payments that gave physicians an incentive to reduce medical care for an individual patient.[46]

A number of other hospitals have become interested in incentive plans. Central DuPage Hospital in Infield, Illinois, made plans to develop a deferred compensation plan using incentives for reducing care. The hospital planned to pay physicians additional compensation based on their performance and several other criteria, including average length of patient stay and use of ancillary services for each patient. Each physician's "efficiency" performance would be

compared to the revenues generated by treating patients. Physicians using fewer resources than average, or discharging patients earlier than average, would receive credit. The compensation was to be invested by the hospital and paid on each physician's retirement; however it was never put into effect.

Under another physician incentive plan—the so-called Medical Staff Hospital (MeSH) joint venture—the hospital would make incentive payments to physicians. As proposed, the medical staff would form a joint venture with the hospital. The hospital would make incentive payments to physicians if the cost of treating Medicare patients was less than a certain percentage of costs.[47] The incentive for reducing services would be spread across the medical staff, presumably diluting the incentive for each physician individually.

Hospitals and medical staff often undertake joint ventures. Such ventures have certain common features. They "harmonize the economic interest of hospitals and physicians," according to Robert Rosenfield, a lawyer who specializes in these issues.[48] Hospitals use these ventures to acquire or "capture" the loyalty of local physicians who control admissions and utilization of medical services.[49] One wonders how patients will fare if their interests conflict with those of physicians and hospitals once the latter two are "harmonized."

Hospitals also try to influence physicians by hiring medical staff organizations as part of a utilization review program. The organization reviews records to determine the appropriateness of admissions and treatment and to help teach physicians how to reduce unnecessary use of resources. Sometimes hospitals pay physicians on the basis of their cost savings, thus giving physicians an incentive to reduce their use of resources.[50]

Another trend is for privately owned hospitals to syndicate themselves and sell shares to local physicians.[51] Physician investment takes several forms. Frequently, a hospital corporation will retain a majority share in the facility and sell off the remainder as limited partnerships to local physicians. At other times, hospital employees own shares through employee stock ownership plans.[52] Physician owners have an incentive to admit patients to the hospital but also to reduce the services they provide to Medicare patients because their payment is fixed in advance.

Still another emerging trend is for hospitals to deny or revoke the admitting privileges of physicians based on the expense to hospitals of their clinical decisions.[53] Though an indirect measure, the power to cut off the means to a livelihood is a serious economic threat. In the past, hospital bylaws only authorized the administration to grant and revoke medical staff privileges on the basis of clinical competence and the quality of medical care. Now many hospitals are evaluating physicians in financial terms. Some lawyers recommend that hospitals revise their bylaws and credentialing process to give them the power to deny, limit, or revoke privileges to physicians whose clinical decisions result in

hospitals losing or earning little money under Medicare's prospective payment system.[54] The lawyers suggest that hospitals develop economic profiles of physicians by compiling information about patients' average lengths of stay. Hospitals could conceivably terminate physicians who deviate from an acceptable standard.[55]

An American Hospital Association (AHA) study indicates that a negligible number of hospitals—only 1 percent—have bylaws that require physicians applying for admitting privileges to submit information on the cost effectiveness of the medical care they provide. Slightly more hospitals use financial profiles based on cost of treatment in renewing physician privileges. But some commentators believe these programs are destined to grow significantly in the future. The programs typically look at patients' length of stay, the number of medical tests the physician ordered, and the use of other resources that affect hospitals' costs. Despite the label "cost-effective," the programs generally do not examine the clinical impact of resource decisions. In effect, they evaluate physicians for behavior that reduces costs with little attention to benefits.

Hospitals also provide incentives for physicians to use resources frugally through their "bonding programs." Bonding programs include recruitment incentives, income guarantees, rent subsidies, advertising, patient referral programs, and in-kind services, and they are called bonding programs because they seek loyalty from physicians with admitting privileges. Although bonding programs do not specifically reward physicians for reducing medical services, they indebt physicians to hospitals for income and thereby encourage them to promote the hospitals' goals. Bonding programs have traditionally been used to induce patient admissions, but this situation is changing. In some cases, such as patient referral programs, hospitals already explicitly exclude so called high-cost physicians.[56] With the increasing emphasis on containing hospital costs, physicians indebted to hospitals are apt to provide fewer services to Medicare patients and to discharge them earlier.

The Dangers of Financial Incentives

The Corrosive Effects of Risk-Sharing Incentives

The practice of risk sharing poses a danger. Society makes a statement about the role of physicians when it provides incentives for them to help government or health care organizations reduce their costs, especially if there are no equivalent financial incentives for physicians to improve the quality of care. By using financial incentives to change the clinical practice of physicians, society endorses and calls forth self-interested behavior. In asking physicians to consider their own interest in deciding how to act, we alter the kinds of responses

and attitudes we want physicians ideally to have. For if physicians act intuitively to promote their patients' interests, we will worry less that they will behave inappropriately. But if their motivation is primarily self-interest, we will want their behavior to be monitored more carefully.

Incentives also undermine other values, such as informed consent. Law and ethics now require physicians to inform patients of the risks and benefits of any proposed treatment, alternatives, and nontreatment. To fulfill this role, physicians must provide patients with disinterested assessment and advice. They must explain the major choices and their implications in a manner understandable to the layperson. But rewarding physicians for reducing services tends to compromise their ability to give disinterested advice. It is likely to shape their views of what kinds of activities are desirable.[57] And even if many individual doctors rise above the lure of incentives and provide neutral advice, patients will still have reasons to doubt their neutrality. This alone weakens the informed consent process. For although patients are ultimately responsible for deciding what medical care to accept, the process of making medical decisions involves communication, cooperation, and trust between patient and physician. If patients doubt the neutrality of their doctors, that process is impaired.

Physicians, like others, will always have private interests that may influence their judgment. But we can encourage institutions to temper self-interest, channel it in socially desirable ways, and counter it.

The Problem with Hospital Incentives to Physicians

Hospitalized patients rely on physicians to act on their behalf more than other patients do. Usually the patients are weak or severely ill and lack the autonomy of patients living outside of hospitals. Ordinarily, they cannot switch physicians in mid-treatment. When hospitals pay physicians to promote the hospital's financial goals, this compromises physicians' loyalty to vulnerable patients.

Hospitals already enjoy an advantage over patients in competing for the loyalty of physicians. Patients consult doctors when they have a medical problem—just once in a while. Physicians have many patients, and each patient can augment a doctor's income by only a small amount compared to the total earned. The economic influence each patient exerts over a physician is small. And so, physicians have to divide their loyalty, or at least their time, between patients. But the relation between hospitals and physicians is entirely different. Most physicians have frequent, ongoing, and long-term relations with just a few hospitals.[58] Hospitals depend on physicians to admit patients, and many physicians, in turn, need hospital privileges to earn their livelihood. Physicians' clinical decisions affect hospital costs, hospital referrals, and other economic ties, which can, in turn, benefit physicians. Individual patients will come and go, but a doctor has to work with a small number of hospitals.

In short, even though there are growing tensions in their relations, hospitals and physicians increasingly depend on each other for employment and income and rely on each other's cooperation to make work manageable. Their relationship is one of economic symbiosis. Each party must work with, watch, court, and cater to the other. It is essential to both parties to promote good long-term relations with the other. How unlike the relations between physicians and their patients! Even though physicians are expected to be loyal to patients, hospitals have far greater leverage over physicians' decisions than do patients and far greater economic clout. These factors skew the relationship between hospitals, physicians, and patients in favor of common interests between hospitals and physicians—interests that can conflict with those of patients. As a result, hospitals and physicians often do not fully respect the rights of patients. The hospital has even been called "a human rights wasteland."[59] Hospital incentive plans did not create this structural imbalance between hospitals, physicians, and patients, but they are not neutral. They undermine physician loyalty to patients even further.

Are Physician Incentives Effective or Necessary?

Many HMO managers fear that without economic incentives for reducing the use of services, nothing will ensure that physicians use resources prudently.[60] They say that other approaches, such as administrative monitoring and penalties for overuse, are less effective.[61] They also discount the possibility that these incentives will encourage physicians to provide too few services. Peer review and quality assurance programs, they argue, would identify and deter underservice arising from other incentives that encourage overuse.[62]

If incentives to provide services cause physicians to use too many resources and to perform unnecessary procedures, would not incentives to reduce services result in too few services? If financial incentives do encourage physicians to reduce their services, will physicians reduce only unnecessary or wasteful services? Why should incentives have negative effects in one respect but not the other?

If peer review and quality assurance review programs can adequately control underservice, why can they not adequately control overuse? If administrative reviews of physicians' practices effectively identify and limit one kind of practice, then they should prove effective in the other. And if they are ineffective in one setting, why should we not suspect their efficacy in another?

No substantial evidence supports the claim that incentive plans are necessary to control use of services. The first HMOs did not use financial incentives to reduce the volume of services, and they significantly reduced hospitalization—with no discernible harm to patients.[63] Incentive plans did not even exist a few years ago. Other, more suitable methods for controlling unnecessary use of services exist; new ones can be developed.

Proponents of risk sharing acknowledge that strong incentives can produce negative effects, and they would prohibit such incentives. However, all risk-sharing and incentive plans compromise physician loyalty. There is no natural or easily identifiable threshold level for determining when incentives become too strong. Moreover, there are great obstacles to regulating risk-sharing and incentive plans based on the amount of risk borne. The danger of particular arrangements depends on the probability and extent of risk. Both are influenced by many factors—not by their broad structural features. So many different variations of risk-sharing plans exist that it would be impractical to evaluate each one, to distinguish the acceptable from the unacceptable, and harder still to monitor and regulate them—a quagmire of unknown dimensions.

Proponents also argue that the negative effects of incentives can be mitigated by spreading the total risk among a pool of physicians, limiting the risk assumed by any individual.[64] These measures could reduce the size of the incentive and prevent undue influence in clinical decision-making. Here, too, proponents of risk sharing want to have it both ways. They argue that if incentives are weak, no harm will be done. But even if weak, incentives will—they say—produce desirable changes in physician behavior. However, if incentives are strong enough to produce desirable changes, they could produce undesirable changes.[65]

Financial Incentives That Help Patients

Not all physician incentives are undesirable. Incentives rewarding behavior that promotes patients' interests should be encouraged. So should incentives that promote other desirable goals and do not compromise loyalty to patients. For example, HMOs and hospitals can use financial incentives to encourage physicians to provide high-quality care, devote extra hours of service, perform particularly hard or unpleasant work, produce high patient satisfaction, undertake research or publications, develop their skill and competence, or assume essential administrative duties.

HMOs and hospitals might also use incentives to encourage physicians to practice efficiently, that is, use the fewest resources needed to achieve a result. Many HMOs and hospitals claim they do just that. Their incentives, however, are usually designed only to reduce expenditures, which does not necessarily make a practice more efficient—it may reduce the benefits. Incentives to reduce the volume of services do not target waste. They discourage all services, not just inappropriate ones. To encourage efficient physician practices, HMOs should offer incentives directed to particular practices.

Effective incentive plans could build on existing peer review, often called "quality assurance" or "utilization review programs." Hospitals employ peer review organizations (PROs) to review patients' charts and evaluate the appropriateness of medical care. Often, third-party payers will deny payment for

inappropriate medical procedures. HMOs use quality assurance programs to identify inappropriate underuse of medical care. Hospitals and HMOs could hire evaluators to review patients' charts and identify both inappropriate provision and denial of services. HMOs and third-party payers could then pay physicians bonuses if they made no, or very few, errors and impose penalties for overuse and underuse of services. Such incentives would discourage both skimping and waste, would reward physicians for providing good medical care, and would not undermine fidelity to patients. Reviewers could be independent experts unaffiliated with the hospital or HMO; the identity of the physicians evaluated would be kept confidential. At least two IPA HMOs, U.S. Healthcare and Ad-Med, have developed physician payment plans that include incentives both for reducing utilization and for promoting some measure of quality in care.[66] The plans attempt to counter incentives for quality with incentives for reducing services and are therefore preferable to incentives for reducing services alone. But neither program balances both incentives equally.

U.S. Healthcare has used several variations on its quality incentive formula. Initially, U.S. Healthcare paid primary care physicians by capitation. The payment plan included two main components: incentives for reducing services and incentives for so-called quality measures. The lower the volume of services each physician performed, the higher the capitation rate and the more frequently it was paid. The capitation rate was also adjusted upward or downward based on quality of care. Quality was measured by a review of medical records, results of patient satisfaction surveys, transfer rates out of physicians' offices, and what it called an assessment of physicians' "managed-care philosophy."

U.S. Healthcare reviewed medical records to determine whether physicians immunized infants, measured the blood pressure of high-risk individuals, and screened for high cholesterol. The patient survey asked about physician availability, waiting time, patient satisfaction with office personnel, and whether the physician appeared concerned with patients' welfare. Physicians received high or low scores on managed-care philosophy, depending on whether they used preventive care programs, participated in quality assurance advisory or membership committees, and helped patients receive high-quality care.

This program was headed in the right direction, but incentives were still skewed.[67] Physicians were not penalized for reducing services inappropriately, except for a few specified services included in the quality measures. There were too few of these measures, so inappropriate reduction of services was still rewarded. Incentives to reduce services overshadowed incentives to increase them. U.S. Healthcare's quality incentives encouraged only low-cost services, such as immunization, testing for cholesterol level, and blood pressure checks in high-risk groups. No direct financial incentive spurred the use of valuable but costly services. Moreover, many of the incentives for quality focused on patient

satisfaction and participation in quality-review administrative work, which do not involve rewards for physicians providing services. Such incentives do not counteract conflicts of interest that discourage referrals to specialists and hospitals. They simply add incentives to provide patients with different low-cost services and keep them satisfied.

Measures of patient satisfaction and transfer rates out of a practice provide useful information to HMOs and can indicate quality problems. But they are also marketing tactics. They do not touch the most crucial aspects of medical care, and they do not encourage the provision of services most likely to be reduced by physician risk sharing. They do encourage physicians to play a role that sociologist Erving Goffman calls "cooling out the mark" (i.e., acting to reduce the patient's anger and frustration).[68] Physicians may please patients by reducing office waiting time and adopting a friendly, caring manner. They can help to prevent patients from choosing another provider due to frustration with the HMO, perhaps because of reduced services. Incentives to keep patients satisfied are generally desirable.[69] But when affirmed in conjunction with incentives to reduce services, they may help cover up, rather than eliminate, inappropriate reductions in medical care.

In 1992, U.S. Healthcare adopted a more complex compensation formula.[70] Multiple factors affect the payment doctors will receive, including quality measures. Still, each doctor's capitation rate can be adjusted upward by 5 percent if his or her patients' use of hospitals, specialists, and emergency rooms is low and downward by 2.5 percent if utilization exceeds targets. As with the previous formula, quality measures provide some check on utilization. But incentives still exist to use services frugally.

Incentives for Physicians to Allocate Scarce Resources

Using markets and administrative mechanisms, society limits the resources used for medical care. Budget constraints impinge on social goals. Increasingly, spending on medicine requires spending less on other desirable social goods, and beyond a certain point, further spending for medicine produces diminishing returns. Physicians are strategically situated to help society control medical expenditures because their clinical choices affect the allocation of resources. But resource allocation is at odds with physicians' traditional obligation: to act in the interests of their patients.

Physicians can play three distinct roles: (1) they can act as ideal fiduciaries, promoting their patients' interests without regard to those of other parties;[71] (2) they can act as neutral resource allocators, distributing resources to maximize social benefit or promote some principle of fairness; and (3) they can promote their own financial interests or those of third parties, such as HMOs or hospitals. Medical ethics adjures physicians to act as their patients' agents. But most physicians perform all three conflicting roles at different times.

As ideal fiduciaries, physicians have to promote the interests of their immediate patients even if the same resources could produce more good for still other patients. But physicians who treat a group of patients in triage or under severe budget constraints usually focus treatment on a few because very ill patients will die regardless of treatment, and patients with minor problems will survive and heal even if treatment is delayed or foregone. Doctors treat first those patients who would die without medical intervention. In triage, physicians' obligation to promote the best interests of each patient conflict with their obligation to care for all patients. Here, doctors must balance the interests of one patient against those of others.

Some countries control medical spending by imposing regional or hospital budgets that place physicians in a position similar to triage. Some Canadian provinces, for example, assign hospitals a budget for all patient care. To stay within the budget, hospitals set their own priorities on allocating funds. In this system, doctors have to consider the good of patients collectively. So, too, does this happen in Britain, where doctors have to make difficult decisions on how to use resources because the National Health Service has a limited budget.[72] Physicians working in staff model HMOs occupy a similar position. With limited resources, they must make difficult choices in caring for their patients. Too many resources donated to one kind of care or patient will leave less available to others or even threaten the solvency of the HMO.

Physicians caring for a group of patients under budgetary constraints cannot act as ideal fiduciaries; they are expected to adjudicate the allocation of resources. Even though this creates risks for patients, it also provides benefits. In theory, clinical choices and allocative choices are distinct; in practice, they merge. If physicians don't act as allocators, others will. This will constrain clinical choices and interfere with physician discretion. But since medicine constantly involves uncertainty, trade-offs, and conflicting goals, the art of doctoring requires discretion and subtlety of judgment.

To illustrate the risk to patients, consider a range of ways to pay physicians and the resource allocation roles they perform along a continuum from 1 to 6 (see Table 9–1). At one end (1), the physician is a nearly perfect agent for a single patient, acting solely on his or her behalf. At the other (6), the physician is an agent whose clinical decisions are highly self-interested. Between these extremes are several intermediate positions. Physicians can work for several patients (2). Here the interests of one patient may conflict with those of another, putting the doctor in the middle. For example, if a physician treating two patients must decide which he should admit to the one bed remaining in the intensive care unit, he is forced to choose between them, and the medical prognosis alone may not dictate an answer.

Table 9.1. Physician Payment Continuum.

PHYSICIAN PAYMENT CONTINUUM					
1	2	3	4	5	6
Salary paid to care for one patient	Salary paid to care for many patients	Salary paid to government. Physician administers budget for a group of patients.	Salary paid by providers or payers. Physician provides medical services to patients.	Physician paid by providers or payers, with financial incentives to reduce expenditures.	Physician paid a set fee per patient and bears the full risk of providing medical services.

Further along the continuum (3), the physician serves as an agent both for patients and for society. If a physician's budget covers the treatment of many patients, then society is, in effect, asking the physician to allocate resources. The physician must decide which medical care should be a priority and which must come second. Though acting on the behalf of patients, the physician is also an agent of society.

Next on the scale (4) is the salaried physician, paid by a hospital or a private firm to offer medical care to its patients or employees or remunerated by an insurance company to offer care to insured parties. In each instance, the physician is subject to pressure to limit medical interventions in order to protect the resources of the payer and has conflicts of interest.

In situation (5), the payer hires the doctor to provide services and offers incentives to reduce the use of resources. The physician is rewarded for limiting services.

At the end of the continuum (6), the physician is paid a set fee per patient to provide all the medical care that is necessary and is at full risk for the cost. Here, each time they make a clinical decision, physicians must balance their own interests against those of patients.

Some people say that if it is acceptable for physicians to help allocate resources, then encouraging them to do so with financial incentives is also acceptable. But the risks to patients are less onerous when physicians do not have a personal stake in the choices they make. Physicians practicing under budgetary constraints can act as disinterested judges of conflicting claims and promote the welfare of individual patients to the extent possible when the welfare of other patients is considered. The situation is different, though, when HMOs pay physicians to limit the use of resources. In that case, physicians are interested parties and watch their own purses. They are encouraged to use their own well-being as a criterion in making difficult medical allocation choices.[73] This tips the scales against patients. Doctors are more likely to limit medical care to increase their income.[74]

Is a Neutral Compensation Arrangement Possible?

One way to avoid perverse consequences is to pay physicians a salary. This form of payment would insulate doctors from direct financial incentives to provide more or fewer services; it would remove a major distorting influence in making clinical decisions. Paying a salary would probably eliminate the conflicts of interest in fee-for-service practice without creating the reverse conflict.[75]

However, employed physicians encounter both indirect and nonmonetary incentives to promote the interests of their employers. Employers can block salary increases or promotions. They can even dismiss physicians who perform too many medical procedures. No physician's salary is more secure than his or her employer's financial solvency, so salaried physicians have a reason to generate income for their employers.

It makes a difference who is employing the physicians. If the employer is a hospital or another provider, it may combine salary with other incentives to encourage patient admissions. If the employer is a large group practice, the incentive to refer services may depend on peer pressure. And when government agencies or other third-party payers employ physicians, they may discourage providing services. But in all of these situations, the absence of direct monetary rewards for providing or withholding service reduces the effect of the incentive.

Indirect and nonmonetary incentives arising from salaried employment can be distinguished from direct financial incentives for practical reasons. Indirect and nonmonetary incentives are ubiquitous. They often exert less effect than direct financial incentives. It would be difficult to identify them all or to gauge their seriousness, and it would therefore be exceedingly difficult, if not impossible, to control them or even to develop a policy in response.

The social significance of direct financial inducements is different. When we pay a physician to provide more or fewer services, we call forth self-interested behavior. We legitimize such motivations and actions and explicitly reward them. But physicians making clinical decisions ought to consider the interests of their patients and comply with appropriate standards of medical practice, not consult their own financial well-being.

Although physicians, like other people, are motivated by earning money, we should not encourage this motivation as a criterion for particular clinical choices. A combination of motives, drives, and desires prompts all persons to act as they do. It would be imprudent to try to suppress motives in order to promote desirable conduct. We need not worry about the complex range of motives of physicians or all the indirect incentives that influence them. But at least we can try to avoid encouraging self-interested action when it creates conflicts of interest.[76]

Are Existing Institutions and Regulations Adequate Protection?

Proponents of risk-sharing incentives claim that whatever drawbacks they may have are offset by existing institutions that provide a check. But as I show in a more extensive survey of existing policy, there is reason for great skepticism about the ability of current institutions to protect patients adequately.[77] Three main types of institutions are now used to counter incentives to undertreat: (1) peer review and quality assurance programs, (2) federal regulations, and (3) medical malpractice law.

Peer review and quality assurance programs sometimes help to deter underuse, but they have built-in limitations that make them insufficient safeguards to protect against incentives to underserve patients. They work best in identifying cases of clear abuse or violation of practice standards. They are less helpful when choices are subtle or when there is clinical uncertainty. In these situations, physicians will always need significant discretion because there is no medical consensus and reviewers will be unable to second-guess clinical judgments.

Federal regulations addressing incentives to undertreat patients are also only partial. Early on, the federal HMO act and regulations authorized and even encouraged HMOs to use physician risk-sharing plans. However, starting in 1992, the Medicare program received authority to regulate individual physician risk-sharing plans for certain HMOs. Still, the proposed regulations only aim to make sure that physicians do not bear a high level of financial risk (i.e. more than 20–30 percent of the doctor's salary, depending on circumstances) not to stop risk sharing.[78] Medicare regulations disallow hospital incentives modeled on the Paracelsus plan, which is akin to fee splitting. They prohibit hospitals from splitting with physicians the DRG payment they receive from Medicare, but not other inducements for reducing services.

Courts have not yet provided any check on risk-sharing practices and have not held physicians, HMOs, or hospitals accountable for conflicts of interest. Recently, some patients have challenged HMO risk-sharing arrangements through private lawsuits. They argue that these programs cause substandard care, that they are deceptive, and that they violate patients' rights as consumers in numerous other ways. So far, though, patients have lost these claims or settled out of court, or the cases are still pending. Although private lawsuits have the potential to be used as a remedy, it is unlikely they can serve this role well.[79]

The best protection for patients from physicians' conflicts of interest is to remove or reduce incentives that may prompt physicians to act in their own interests rather than those of their patients. There are, therefore, strong grounds to prohibit risk-sharing and other incentive plans altogether. If this is not politically acceptable, then the second best approach would be to limit the total amount of money physicians can gain or lose through risk sharing. The most practical way

to do this would be to cap any physician's financial gain or loss at a small percentage of his or her baseline pay. This would provide a rule that would be easy to monitor, with effects easy to gauge. For example, a statute might restrict profit or loss under risk-sharing plans to 1–2 percent of baseline income or to a fixed dollar amount. Such a restriction would prevent providers from tempting physicians to change their behavior.[80] Although we cannot be sure that small financial incentives would not produce inappropriate conduct, strictly controlled risk sharing is preferable to risk sharing with stronger incentives.

Notes

1. This chapter draws on my analysis in chapters 5 and 6 of my book *Medicine, Money and Morals: Physicians' Conflicts of Interest* (1993). The book offers an extensive analysis of a wide range of physicians' financial conflicts of interest and proposed policy responses.
A number of articles address incentives to increase services. *See:*
Bruce Hillman *et al.*, Physicians' Utilization and Changes for Outpatient Diagnostic Imaging in a Medicare Population," 268 *JAMA* 2050–2054 (1992).
Jean Mitchell and Jonathan Sunshine, Consequences of Physician Joint Ventures: The Case of Radiation Therapy Services, 327 *N. Engl. J. Med.* 1497–1501 (1992).
Jean Mitchell and Elton Scott, Evidence of Complex Structure of Physician Joint Ventures, 9 *Yale J. Reg.* 489–520 (1992).
Jean Mitchell and Elton Scott, Evidence on the Prevalence and Scope of Physician Joint Ventures, 268 *JAMA* 80–84 (1992).
Jean Mitchell and Elton Scott, Physician Ownership of Physical Therapy Services: Effects on Charges, Utilization, Profits, and Service Characteristics, 268 *JAMA* 2055–2059 (1992).
Marc Rodwin, The Organized American Medical Profession's Response to Financial Conflicts of Interest: 1890–1992, 70 *Milbank Q.* 703–741 (1992).
Alex Swedlow *et al.*, Increased Cost and Rates of Use in the California Workers' Compensation System, 327 *N. Engl. J. Med.* 1502–1506 (1992).
State of Florida Health Care Cost Containment Board and Department of Economics and Department of Finance, *Joint Ventures Among Health Care Providers in Florida* (1991).
David Hemenway *et al.*, Physicians' Responses to Financial Incentives: Evidence from a For-Profit Ambulatory Care Center, 322 *N. Engl. J. Med.* 1059–1063 (1990).
Bruce Hillman *et al.*, Frequency and Cost of Diagnostic Imaging in Office Practice—A Comparison of Self-Referring and Radiologist-Referring Physicians, 323 *N. Engl. J. Med.* 1604–1608 (1990).
Alan Hillman *et al.*, How Do Financial Incentives Affect Physicians' Clinical Decisions and the Financial Performance of Health Maintenance Organizations?, 321 *N. Engl. J. Med.* 86–92 (1989).
Marc Rodwin, Physicians' Conflicts of Interest: The Limitations of Disclosures, 321 *N. Engl. J. Med.* 1405–1408 (1989).
Alan Hillman, Financial Incentives for Physicians in HMOs: Is There a Conflict of Interest?, 317 *N. Engl. J. Med.* 1743–1748 (1987).
Blue Cross and Blue Shield of Michigan, Medical Affairs Division, *A Comparison of Laboratory Utilization and Payout to Ownership* (1984).
Health Care Financing Administration, *Department of Health and Human Services, Region*

V Diagnostic Clinical Laboratory Services, Report No. 2-05-2004-11 (1983).
Michigan Department of Social Services, *Utilization of Medicaid Laboratory Services by Physicians with/without Ownership Interest in Clinical Laboratories* (1981).
A. W. Childs and E. D. Hunter, Non-Medical Factors Influencing Use of Diagnostic X-ray by Physicians, 10 *Med. Care* 323–35 (1972).

2. S. J. Reiser *et al.*, *Ethics in Medicine: Historical Perspectives and Contemporary Concerns* (1977).
3. K. Kipnis, *Legal Ethics* (1986); P. D. Finn, *Fiduciary Obligations* (1977).
4. Incentives to reduce care also counter another distortion in medical markets, namely insurance, which removes financial barriers to access for insured people and thus eliminates any incentive they have to use resources frugally. A still more fundamental distortion is uncertainty, which makes patients depend on physicians and skews decisions. Kenneth Arrow, Uncertainty and the Welfare Economics of Medical Care, 53 *Am. E. R.* 941–973 (1963).
5. There is an exception: approximately 15 percent, or 37 million Americans, have no health insurance.
6. This is called a "prospective payment system" that pays hospitals using diagnosis related groups (DRGs). In fact, the system is more complex. If the cost of treatment greatly exceeds the DRG payment, Medicare will chip in and pay one-half of the extra cost. The payment is adjusted for hospital region, teaching status, and other criteria.
7. For a sample of views of proponents of such incentives, see the following articles:
Richard Egdahl and Cynthia Taft, Financial Incentives to Physicians, 315 *N. Engl. J. Med.* 59–61 (1986).
Mark Hall, Institutional Control of Physician Behavior: Legal Barriers to Health Care Cost Containment, 137 *U. Pa. L. R.* 431–536 (1988).
Mitchell Rabkin, Control of Health Care Costs: Targeting and Coordinating the Economic Incentives, 309 *N. Engl. J. Med.* 982–984 (1983).
8. For a summary of evidence of underuse of medical services and the effect on quality of care, *see Quality Problems and the Burdens of Harm: Evidence of Underuse in Medicare: A Strategy for Quality Assurance* (Kathleen Lohr, ed., 1990).
9. Alan Stone, Law's Influence on Medicine and Medical Ethics, 312 *N. Engl. J. Med.* 309–312 (1985).
10. "Health maintenance organization" is a legislative term used to describe prepaid group practices qualifying for certain federal benefits. In common usage, it often refers to prepaid group practice generally, and includes so-called competitive medical plans and many other similar arrangements.
11. *See*, Larry Brown, *Politics and Health Care Organization: HMOs As Federal Policy* (1983).
12. More recently, HMOs have developed three tiers. *See*, Alan Hillman *et al.*, Contractual Arrangements Between HMOs and Primary Care Physicians: Three Tiered HMOs and Risk Pools, 3 *Med. Care* 136–148 (1992).
13. Some analysts now suggest that differences in institutional structure are less significant than the different financial incentives and styles of management different HMOs use. *See*, Pete Welch *et al.*, Toward New Typologies for HMOs, 68 *Milbank Q.* 221–243 (1990).
14. There are numerous definitions of managed care. A few prominent ones are as follows.
"A coordinating and rationing strategy designed to make the unique role of the primary care provider the key to cost control." Deborah Freund and Robert Hurley, Managed Care in Medicaid: Selected Issues in Program Origins, Design, and Research, 8 *Annu. Rev. Public Health* 137–163 (1987).
"[A] health care plan that attempts to influence physician practice in contrast to traditional indemnity insurance that pays the health bills for services specified in the health benefit."

Richard Egdahl, *Managed Care in the U.S.*, Pew Seminar on Managed Care, Boston University Health Policy Institute, January 29, 1988.

"Management of resources used by physicians in the care of patients, driven by financial considerations." Michael Rabkin, Pew Seminar on Managed Care, Boston University Health Policy Institute, April 8, 1988.

15. Even in fee-for-service practice there is a variety of practice styles. *See* John Wennberg and A. Gittelshon, Small Area Variations in Health Care Delivery, 183 *Science* 1102–1108 (1973).

    Nevertheless, fee-for-service encourages overuse of services. For a summary of evidence of overuse of medical services, *see* Institute of Medicine, Chap. 7 (1990).
16. Hillman, *supra* note 1.
17. I use the term "profitable" to cover both profit in for-profit HMOs and a "surplus" in non-profit HMOs.
18. Hillman, supra notes 12 and 13.
19. Marsha Gold and Ingrid Reeves, Preliminary Results of the GHAA-BC/BS Survey of Physician Incentives in Health Maintenance Organizations (HMOs), *Research Briefs* 1 (1987). Typically, bonuses are explicitly linked to the volume of services used. Sometimes, however, bonuses are based on HMO profits. Profit sharing provides the same incentives for physicians as bonuses based on the volume of services used. The main costs to an HMO are those of the medical services they provide.
20. Lewis Sullivan, Department of Health and Human Services, *Incentive Arrangements Offered by Health Maintenance Organizations and Competitive Medical Plans to Physicians* 2 (1988).
21. Gold, *supra* note 19.
22. For example, the California Primary Care Management Medicaid program gives physicians the option of bearing the risk for diagnostic tests, x-rays, and drugs. *See* Pete Welch et al., *Toward a Typology of HMOs Reflecting Financial Incentives to Physicians* (1989).
23. *See* Pete Welch, *Giving Physicians Incentives to Contain Costs Under Medicare: Lessons from Medicaid (The Urban Institute, Working Paper* 3872–01 (1989)).
24. Department of Health and Human Services, *Medicare: Physician Incentive Payments by Prepaid Health Plans Could Lower Quality of Care* (1988).
25. Stephen Moore, Cost Containment Through Risk-Sharing by Primary-Care Physicians, 300 *N. Engl. J. Med.* 1359–1362 (1979).

    Stephen Moore *et al.*, Does the Primary-Care Gatekeeper Control the Costs of Health Care? Lessons From the SAFECO Experience, 309 *N. Engl. J. Med.* 1400–1404 (1983).

    John Lavin, When Primary Doctors Run the Whole Show, 22 Dec. *Med. Economics* 25–42 (1980).
26. Based on Bluechoice documents in possession of author.
27. Primary care physicians can also receive income from providing services not covered in the capitation agreement on a fee-for-service basis and by sharing savings from their management of home care cases.
28. These figures assume a practice of 1,850 primary care patients.
29. Robert Berenson, Hidden Compromises in Paying Physicians, *Business and Health* 18–22 (July 1987).
30. Robert Berenson, Financial Confessions of a Sawbones: In a Doctor's Wallet, *The New Republic* 11-13 (May 18, 1977).
31. *Id.*
32. Gina Kolata, Being Thorough Can Be Costly-To the Doctor, *New York Times* § 4, at 6 (March 20, 1988).

33. Hillman, *supra* note 1.
34. Alan Hillman *et al.*, HMO Managers' Views on Financial Incentives and Quality, 10 *Health Affairs* 206–219 (1991).
35. Daniel Haney & Fred Bayles, *HMO Doctors Can Earn More For Doing Less*, Associated Press (November 19, 1991).
36. Michael Millenson, Health Care Debate Rages: Cost-Paring: Good Business or Bad Medicine?, *Chicago Tribune* §1, at 3-5 (June 14, 1987).
37. *Id.*
38. Some economists say that people are influenced most by marginal gains or losses from particular decisions. However, others say that money, like anything else, has decreasing marginal utility and will be less desirable as the supply increases. A growing literature suggests that physicians work to achieve a target income. If this is so, they will be less susceptible to incentives as they approach or exceed this target.
    For a discussion of the target income hypothesis, see the following articles: Jerry Cromwell and Janet Mitchell, Physician-Induced Demand for Surgery, 5 *J. Health Econ.* 293–313 (1986).
    Gail Wilensky and Louis Rossiter, The Relative Importance of Physician-Induced Demand in the Demand for Medical Care, 61 *Health and Society* 252–277 (1983).
    Uwe Reinhardt, The Theory of Physician-Induced Demand: Reflections After a Decade, 4 *J. Health Econ.* 87–93 (1985).
    Louis Rossiter and Gail Wilensky, A Reexamination of the Use of Physician Services: The Role of Physician-Induced Demand, 20 *Inquiry* 162–172 (1983).
    Frank Sloan and Roger Feldman, Competition Among Physicians, in *Competition in the Health Care Sector: Past, Present, and Future* (1978).
    Victor Fuchs, The Supply of Surgeons and the Demand for Operations, 13 *J. Human Resources* 35–56 (1978).
39. Hillman, *supra* note 12.
40. For a description of prospective payment using DRGs, see Bruce Vladeck, Medicare Hospital Payment by Diagnosis-Related Groups, 100 *Ann. Intern. Med.* 576–591 (1984).
41. Jeffrey Harris, The Internal Organization of the Hospital: Some Economic Implications, 8 *Bell J. Econ.* 467–482 (1977).
42. Mary Koska, Physician Practices Go Under the Microscope, *Hospitals* 32-37 (February 20, 1990).
43. William Tierney *et al.*, The Effect on Test Ordering of Informing Physicians of the Charges for Outpatient Diagnostic Tests, 322 *N. Engl. J. Med.* 1499–1504 (1990).
44. *See* the series of articles by Fred Bayles and Daniel Haney of the Associated Press entitled "Doctors for Sale." These articles deal with the carrots and sticks that hospitals use to get physicians to admit patients and practice in a manner that promotes hospitals' financial well-being. Released October 14, 1990: Hospitals Give Doctors Money, Freebies for Patients. Released October 15, 1990: Money for Patients: One Hospital's Story.
45. General Accounting Office, *Physician Incentives* (1988).
46. Paracelsus stopped its physician incentive plan following a 1985 investigation by the Department of Justice for Medicare fraud. Other hospitals with similar incentive plans have followed suit. Although the initial impetus for the Paracelsus investigation was the incentive plan, the Justice Department also investigated billing and other practices. As part of a settlement of all potential claims, Paracelsus agreed to pay $4.45 million in reimbursement, fines, and interest and to provide $100,000 in medical services to indigent persons living in Orange County. See the following sources: Department of Health and Human Services, Office of Inspector General, *Fact Sheet on the Paracelsus Investigation* (1988).

General Accounting Office, *Physician Incentives* (1988).
Kathryn A. Kreche, Abusing the Patient: Medicare Fraud and Abuse and Hospital-Physician Incentive Plans, 20 *Mich. J. L. Reform* 279–304 (1986).
The Paracelsus case was also instrumental in prompting Congress to pass legislation limiting risk sharing in HMOs. *See* 42 U.S.C. 1320a-7a(b).

47. Interstudy proposed the idea, and it has received considerable attention. However, it has rarely been used.
48. Glenn Richards, How Do Joint Ventures Affect Relations with Physicians?, 58 *Hospitals* 68–74 (1984).
49. *Id.*
50. James Dechene, Physician Incentive Programs: Are They Legal?, 4 *HealthSpan* 3–9 (1987).
51. Linda Perry, Physician Ownership May Give Hospitals a Shot in the Arm, *Modern Healthcare* 25-34 (June 30, 1989).
52. Often these arrangements involve a complicated series of ownership and leasing arrangements between the hospital and physicians.
53. For a review of recent developments and the legal issues, see Hall, *supra* note 7. See also Nathan Hershey, Applying Utilization Review Findings in Medical Staff Appointment and Reappointment Decisions, 1 *Quality Assurance and Utilization Review* 109–110 (1986).
54. Gerald Glandon & Michael Morrisey, Redefining the Hospital-Physician Relationship Under Prospective Payment, 23 *Inquiry* 166–175 (1986).
P.M. Ellwood, Jr., *When MDs Meet DRGs*, 57 Hospitals 62–66 (1983).
John Eller & Sanford Teplitzky, Considering Economic Factors in Hospital Privilege Decisions, 3 *HealthSpan* 11-14 (August/September).
For a study of one hospital's changed by-laws to account for physician costs, see Cantrell and Frick, Physician Efficiency and Reimbursement: A Case Study, *Hospital and Health Services Administration*, November/December at 43 (1986).
Economic Credentialing is Fine-For Tightrope Walkers, 15 *Hospital Peer Review* 49–51 (1990).
55. John Blum, Economic Credentialing: A New Twist in Hospital Physician Appraisal Processes, 12 *J. Legal Med.* 427–475 (1991).
Mary Koska, Hospital CEOs Divided on Use of Economic Credentialing, 65 *Hospitals* 42–48 (1991).
56. Hospitals frequently will maintain a referral service for patients who seek a physician for outpatient medical care. Some hospitals have excluded "high-cost" physicians from their referral programs (i.e., those who order a lot of tests and procedures), so that hospital revenues under Medicare's DRG reimbursement system are less than the costs of treating patients. Julie Franz, Clipping Doctors from Referral Program Spurs Them to Clip Costs, *14 Modern Healthcare* 116 (April 1984).
57. Theodore Schneyer, Informed Consent and the Danger of Bias in the Formation of Medical Disclosure Practices, 1976 *Wis. L. Rev.* 124–170 (1976).
58. The relationship between hospitals, physicians, and patients resembles that of courts, criminal defense lawyers, and clients. Marc Galanter says that criminal defense lawyers are "repeat players" that have a vested interest in the system which may compromise their loyalty to clients, who only interact with the justice system occasionally. Marc Galanter, Why the "Haves" Come Out Ahead: Speculations On The Limits of Legal Change, 9 *L. Soc. Rev.* 95–160 (1974).
59. George Annas, The Hospital: A Human Rights Wasteland, in his *Judging Medicine* 4-26 (1988).

60. However, more sober proponents acknowledge that not much is known about the effects of such incentive arrangements or about other crucial variables that affect the costs of caring for patients. *See, e.g.*, Physician Payment Review Commission, *Risk-Sharing Arrangements in Prepaid Health Plans, Annual Report to Congress* (1989).
61. The most common examples of such programs are Medicare's Professional Standards Review Program, private utilization review programs, and quality assurance programs. I discuss these in the section, "Are Existing Institutions and Regulations Adequate Protection?".
62. Sullivan, *supra* note 20.
63. The first HMOs were staff model HMOs that employed physicians on salary. They often reduced hospitalization by 30 percent. Harold Luft, *Health Maintenance Organizations: Dimensions of Performance* (1981).
64. *See, e.g., Risk-Sharing Arrangements in Prepaid Health Plans*, chapter 15 (1987). The report's recommendations include the following:
HCFA should require prepaid health plans to limit the total risk assumed by individual physicians or small groups through some form of reinsurance or "stop loss" provisions, and it should require them to rely primarily on incentives to groups of physicians rather than to individual physicians.
See also the testimony of Karen Davis, Commissioner, Physician Payment Review Commission. *Fiscal Year 1990 Budget Issues Relating to Physician Incentive Payments by Prepaid Health Plans*, Hearings Before the Subcommittee on Health of the Committee on Ways and Means, House of Representatives, 101st Congress, 1st Session (Serial No. 101-30), April 25, 1989.
65. Some writers have commented on this problem. Dr. Stephen Moore acknowledges the need to reduce the risk physicians bear in order to prevent undue pressure on physicians when they have a few very ill patients. In such situations, doctors can do everything reasonably possible within the realm of accepted medical practice to eliminate waste yet still lose money. Here risk sharing can promote improper behavior. Yet Moore attributes the failure of the Safeco HMO to its providing incentives that were too weak. Moore, *supra* note 25.
66. U.S. Healthcare, a national HMO, and Ad-Med, a Florida-based HMO, have devised such programs. For a summary of the U.S. Healthcare program written by employees of U.S. Healthcare, see Neil Schlackman, Integrating Quality Assessment and Physician Incentive Payment, *Quality Review Bulletin* 234-237 (August 1989); Michael A. Stocker, Quality Assurance In An IPA, 3 *HMO Practice* 183–187 (1989).U.S. Healthcare has revised the incentive formula it uses three times and is likely to do so again in the future. For a discussion of the Ad-Med program by its medical director, see the chapter discussing age used in Peter Boland, *Making Managed Health Care Work* (1991).
67. The incentive payments are only part of the U.S. Healthcare quality assurance program. My criticisms are not directed to the whole program, only to the idea that incentives for their quality measures can appropriately counter incentives to reduce services.
There is little public information about the effectiveness of the U.S. Healthcare program. U.S. Healthcare has published a brief description of the program (*see* note 66). It hired a consulting firm to evaluate the program and has released a four-page executive summary of the 100+-page report. The summary portrays the program very favorably. However, the report itself is not public. U.S. Healthcare acknowledges that the consultants also suggested a number of changes, including improvement of the review of medical records by using more comprehensive criteria, more objective measures, and better-trained reviewers. *See* Schlackman, *supra* note 66.
68. Erving Goffman, On Cooling the Mark Out, 15 *Psychiatry* 451–463 (1952).
69. One study found that patient satisfaction was correlated with quality of care. A. L. Stewart

et al., Functional Status and Well-Being of Patients With Chronic Conditions: Results From the Medical Outcomes Study, 262 *JAMA* 907–913 (1989).

70. *U.S. Healthcare's Quality Mission Statement* (1992), unpublished photocopy; telephone interview with Neil Schlackman, U.S. Healthcare, June 1992.
71. For a discussion of fiduciary obligations, see Chapter 14 in this volume at notes 119 to 124.
72. Thomas Halper, *The Misfortune of Others: End-Stage Renal Disease in the United Kingdom* (1989).
73. When physicians receive incentives to reduce services, they become what Dr. Geist calls "Self-serving denial-of-care agents for the benefit of 'buyer' of care seeking 'cost-control' of the 'health-care industry.'" Robert W. Geist, 291 *N. Engl. J. Med.* 1306, 1307 (1974).
74. Norman Daniels, Why Saying No to Patients in the United States is So Hard (Cost Containment, Justice, and Provider Autonomy), 314 *N. Engl. J. Med.* 1381–1383 (1986).
75. It might be argued that salaried practice does not make physicians neutral with respect to providing medical services because the risk of malpractice liability provides incentives for physicians to practice defensive medicine, *i.e.*, to perform minimally useful diagnostic tests merely to document the basis for their clinical decisions. Financial incentives to reduce diagnostic tests, it can be argued, are necessary to counter this tendency. However this approach to discouraging defensive medicine is roundabout and not particularly effective. A more direct approach would be for institutional providers to pay the cost of malpractice insurance.
76. For a thoughtful discussion of the undesirable consequences of using incentives to promote desirable behavior in another context, see, Steven Kelman, *What Price Incentives?: Economists And The Environment* (1981).
77. Rodwin, *supra* note 1 at chapters 5 and 6.
78. Requirements for Physician Incentive Plans in Prepaid Health Care Organizations. 5 *Federal Register* 59024–59041 (December 14, 1992).
79. For proposals advocating the use of private law suits as a remedy see, E. Haavi Morreim, Physician Investment and Self-Referral: A Philosophical Analysis of a Contentious Debate, 15 *Journal of Medicine and Philosophy* 425–448 (1990); E. Haavi Morreim, chapter 11 (this volume). But for further elaboration of why I believe private law suits are likely to be insufficient, see, Marc Rodwin, *Medicine, Money and Morals: Physicians' Conflicts of Interest* (1993) at chapter 6.
80. The average physician's salary in 1990 was $155,000. Suppose this was the baseline for a physician in an HMO with a risk-sharing plan that could increase or decrease his pay by 2 percent. Then the physician could increase or decrease his income by $3100. Thus, his income would be between $151,900 and $158,100. By sharing risk and making financially driven choices, he could affect his income by $6200.