PAYING PHYSICIANS MORE TO DO LESS: FINANCIAL INCENTIVES TO LIMIT CARE*

David Orentlicher**

I. INTRODUCTION

As the explosion in health care costs has led to serious efforts at cost containment, concerns have been raised that some of the methods used to contain costs may cause more harm than good. In particular, many commentators have criticized the practice of giving physicians personal financial incentives to limit the provision of care to their patients. These critics have argued that, if physicians are paid more to do less, patients will suffer harm from undertreated illness, and patient trust in the patient-physician relationship will be seriously compromised. Accordingly, it is argued, financial incentives for physicians to limit care should not be used1 and should even be prohibited.2

---

* This article expands substantially on some ideas presented earlier in David Orentlicher, Health Care Reform and the Threat to the Patient-Physician Relationship, 5 HEALTH MATRIX 141 (1995) and David Orentlicher, Managed Care and the Threat to the Patient-Physician Relationship, 10 TRENDS IN HEALTH CARE, L. & ETHICS 19 (1995). I am grateful for the comments of Judy Faller and Peter Hammer, and the research assistance of Lakshmi Reddy. I am also grateful to the American Medical Association and the Indiana University School of Law-Indianapolis for their support of this research. I would also like to thank Harris Kay and the staff of the University of Richmond Law Review.

** Associate Professor of Law, Indiana University School of Law-Indianapolis; Adjunct Associate Professor of Medicine, Indiana University School of Medicine; Adjunct Assistant Professor of Medicine, Northwestern University Medical School; A.B., 1977, Brandeis University; M.D., 1981, J.D., 1986, Harvard University.


In this article, I will argue that the opposition to financial incentives is ultimately misguided, that it gives insufficient weight to the benefits of financial incentives and to the broader context in which financial incentives are used. While personal financial incentives to limit care raise important ethical concerns, they also have important benefits for cost containment that alternative methods do not have. Moreover, the alternative methods are either insufficiently effective or raise their own equally troubling concerns. Accordingly, while the government should place limits on the extent to which financial incentives can be used, it should not prohibit the incentives entirely.

II. THE NEED TO LIMIT HEALTH CARE COSTS

With health care costs continuing to rise, it has become increasingly clear that we cannot afford all medically beneficial care. Advances in technology are pushing health care costs to an unsustainable level—spending on health care has reached nearly fourteen percent of this country's Gross Domestic Product (GDP). Some savings can be achieved by eliminating waste in the health care system—there are too many hospital beds, radiologic scanners and other medical equipment and facilities in the United States, and there is considerable inefficiency in administrative activities. However, elimination of waste would not free up enough resources to cover all potentially useful medical services. Moreover, the public has a host

3. Indeed, we have probably never provided all potentially beneficial medical care. For example, the high cost of MRI scans has meant that some patients with detectable cancers do not undergo scanning because of the very low probability that they have a cancer.


of welfare needs, such as better housing, education, and environmental protection, but has a limited purse. If we are to have any money left to pay for these other goods, then we must limit how much we spend on health care services. A significant amount of marginally beneficial care can no longer be provided.

Some observers have questioned whether the public has actually consented to the implementation of cost containment measures. It is true that, other than in Oregon where there was broad public input into the development of the Oregon Health Plan's prioritization of health care services, there has not been a formal public discussion and referendum on health care rationing. Nevertheless, the public is very much voting with its pocketbook in favor of cost containment. Participation in Health Maintenance Organizations (HMOs), which typically charge lower premiums than traditional indemnity health plans, has been increasing rapidly in the past few years, and experts project continued rapid growth in the coming years. Some twenty percent of Americans are enrolled in HMOs, and it is estimated that HMO enrollment will increase ten to fifteen percent annually over the next few years. Enrollment in either an HMO or a Preferred Provider Organization (PPO)

9. This statement is true whether we are talking about publicly or privately funded health care. Both governments and individuals have limited budgets.
11. Some commentators distinguish, on the one hand, between the elimination of care when marginal costs exceed marginal benefits, and, on the other hand, decisions to deny care when marginal benefits exceed marginal costs, but net marginal benefits are not as great as for care provided to other patients. The meaningfulness of this distinction is not clear given the difficulty of comparing benefits and costs of health care. For example, does extending life for a day at a cost of $10,000 have greater marginal benefits or costs? In any case, the distinction is not significant for purposes of this article.
13. HMOs are health care plans that provide a comprehensive package of health care benefits, generally for a fixed, prepaid premium. Traditional indemnity plans provide reimbursement for health care services, but do not actually provide the care themselves, and subscribers are subject to deductibles and co-payments when they obtain covered services. DAVID E. VOGEL, AM. MED. ASS'N, DOCTORS RESOURCE SERVICE: THE PHYSICIAN AND MANAGED CARE 5 (1993).
15. The term Preferred Provider Organization (PPO) refers to a health care plan
now totals about forty percent of the population. In any event, this article is not about the government forcing people into lower cost health plans. Rather, it is about the extent to which health care plans can take measures that will reduce costs and make their insurance available at lower premiums to those individuals who are willing to sacrifice some marginally beneficial medical care.

III. FINANCIAL INCENTIVES TO LIMIT CARE

A. Types of Financial Incentives to Limit Care

Because the traditional fee-for-service method of reimbursing physicians for their services is believed to have encouraged overutilization of medical services, health care plans have increasingly turned to alternative methods of compensation that eliminate the incentive for physicians to provide high levels of care. With fee-for-service care, physicians receive reimbursement for each service they actually provide. The more services that are provided, the greater the physician's income. Accordingly, additional care may serve the personal interests of physicians even when the benefits of the care may not be great enough to justify its costs.

The two primary alternatives to fee-for-service care are capitation and salary. With capitation, the physician assumes responsibility for the care of a number of patients and is paid a fixed amount of money for each patient. While capitation and salary in principle are interchangeable—they both result in physicians being paid a fixed level of compensation no matter how many or how few services they provide—the two forms of payment tend to be used differently. Salaries are more common

in which the insurer enters into contracts with physicians, hospitals, and other health care providers to provide services to the plan's members. These "preferred" providers agree to discounted payments, utilization review, approval by the plan for non-emergency admissions to the hospital, and other concessions in return for their being listed as a covered provider under the plan's terms. If subscribers use non-listed providers, then they receive only partial coverage for the costs of their care. VOGEL, supra note 13, at 5.


17. Even with the growth of managed care, the majority of physician revenues continue to be earned on a fee-for-service basis. Id. at 6.
in HMOs, which often employ a full-time staff of physicians\textsuperscript{18} or contract with a group or groups of physicians\textsuperscript{19} to provide medical services to the HMOs' subscribers on a full-time basis, while capitation is more typical with health care plans that contract for only part of a physician's time. For example, a particular physician may serve patients from several different health plans, and receive capitation fees from each plan. Whether paid by salary or capitation, physicians earn the same amount of money no matter how many services they provide their patients and have no incentive to provide excessive services. Rather, they have a personal incentive to limit the services that they provide. The fewer appointments they schedule and the less time they spend with patients during each appointment, the more time they have available for alternative activities like consulting, research, or leisure.

There is one important difference between salary and capitation with regard to a physician's personal incentives. With capitation, physicians have an incentive to increase the number of patients for whom they have responsibility while, with salary, physicians have an incentive to reduce the number of patients for whom they have responsibility. Accordingly, salaried physicians are often assigned a certain number of patients for whom they are expected to provide care.

Even with their built-in incentive to limit care, pure salary and capitation may not provide sufficient incentive for physicians to limit the costs of care provided to their patients. Physicians rely on a bundle of medical services to care for their patients, and this bundle includes the physician's own time with the patient, diagnostic tests or procedures\textsuperscript{20}, referrals to other physicians with different or more specialized expertise, and other ancillary services. When physicians receive a fixed amount of compensation for their own time, they have an incentive to alter the mix of services provided to their patients, to

\textsuperscript{18} HMOs that employ their own physicians are known as "staff model HMOs." Vogel, supra note 13, at 11.

\textsuperscript{19} HMOs that contract with a group or groups of physicians are known as "group model HMOs." The Kaiser Permanente HMOs operate as group model HMOs. Id. at 11-12.

\textsuperscript{20} The category of diagnostic tests and procedures includes blood tests, x-rays, other radiologic tests like CT and MRI scans, and biopsies.
rely less on their own direct services and rely more on diagnostic tests, referrals and other ancillary services. As a result, even though the costs to the health plan of the physician's services are contained, the costs of all services provided to patients may nevertheless rise. The costs of overall services may also rise because physicians have other incentives to increase their use of ancillary services. The desire to minimize uncertainty about the patient's diagnosis and prognosis or to reduce the risk of professional liability also can result in physicians overusing diagnostic tests, referrals, and other medical services.

To restrain physicians from overusing ancillary services, health care plans typically rely on bonuses, fee withholds, or expanded capitation. In a bonus arrangement, health care plans set aside a pool of funds to pay for ancillary services. If at the end of the year, there are unspent funds in the pool, the residual funds are used to pay for bonuses to the physicians in the health care plan. Accordingly, the physicians recognize that they can increase their compensation by reducing their use of ancillary services. Fee withholds work similarly. In a fee withhold arrangement, the health care plan deducts a percentage of the physicians' compensation at each pay period and uses the withheld compensation to fund a pool for ancillary services. If, at the end of the year, there are unspent funds in the pool, the residual funds are returned to the physicians. With expanded capitation, a physician's capitation payments are designed to cover not only the physician's own services for the physician's patients but also some or all of the ancillary services provided to the patients. 21 If the physician refers a patient to another physician or orders a laboratory test, the cost of the referral or test comes out of the physician's income. In short, financial incentives to limit care discourage physicians from providing high levels of care by transferring from the health plan to the physician some of the financial risk of costly medical care.

B. **Virtues and Dangers of Financial Incentives to Limit Care**

1. **Dangers of Financial Incentives**

Commentators have sharply criticized the use of financial incentives to limit care.\(^22\) The most troubling aspect is the risk to patient welfare. If physicians have a personal economic interest in limiting the care they provide their patients, they may delay important tests and treatment or omit the tests and treatment entirely. They may schedule patients for return appointments at intervals between appointments that are too long, or they may try to manage their patients' care too long, unduly stretching the limits of their own expertise, before referring the patients to an appropriate specialist.\(^23\) Physicians may also accelerate the date of a patient's discharge from the hospital after surgery, increasing the risk that a complication of the surgery will develop at home where appropriate care may not be available quickly enough.\(^24\)

Even if there is no actual harm to the patient, there may be serious harm to the patient-physician relationship. Historically, physicians have assumed a fiduciary role on behalf of their patients, assuring patients that they will act primarily as advocates for the patient's interests.\(^25\) This fiduciary role is a natural result of the condition of the patient and the role of the physician. Patients are especially needy when they are sick, with their health, and indeed their life, often hanging in the

---


\(^{23}\) Edmund D. Pellegrino, *Rationing Health Care: The Ethics of Medical Gatekeeping*, 2 J. CONTEMP. HEALTH L. POLY 23, 31 (1986). For example, an internist might not consult a cardiologist soon enough to help a patient properly with coronary artery disease.

\(^{24}\) Jacqueline Kosecoff et al., *Prospective Payment System and Impairment at Discharge: The “Quickер-and-Sicker” Story Revisited*, 264 JAMA 1980 (1990) (studying 17,000 patients in 300 hospitals in five states and finding that when Medicare switched to a prospective payment system in which hospitals were paid a fixed fee for each patient rather than being reimbursed based on the patient's actual costs of care, patients were discharged sooner and in less stable condition).

balance. At the same time, they are especially dependent on their physicians, who possess not only a virtual monopoly on the expertise to treat illness but also a virtual monopoly on the use of medical therapies. With so much at stake for the patient's welfare and so much power in the hands of physicians, patients will not be willing to rely on their physicians' judgment unless they can trust that physicians will use their power and authority on behalf of their patients, placing their patients' interests above all other interests. However, when physicians are paid more to do less for their patients, patient trust in physicians will naturally be eroded as patients begin to wonder whether tests and treatments are being withheld because they are not medically indicated or because physicians have a financial interest in denying the care.

Given the dangers of financial incentives, the federal government has enacted legislation that restricts the use of financial incentives by health care plans that provide care to Medicare or Medicaid recipients. Health care plans may not make "specific" payments "directly or indirectly" to physicians "as an inducement to reduce or limit medically necessary services." Further, if a health plan places physicians "at substantial financial risk" with financial incentives, the plan must provide "stop-loss protection" for the physicians at a level that is "based on standards developed by the Secretary" of Health and Human Services. This legislation was originally enacted in 1986 and amended in 1990. Proposed rules were published in December 1992, and final rules were issued in March 1996.

27. Under the statute, substantial financial risk is to be defined by the Secretary of the Health and Human Services. Id. § 1395mm(i)(8)(A)(ii).
28. Stop-loss protection or insurance refers to an arrangement by which a health care plan places a limit on the amount of risk borne by its physicians. For example, in an expanded capitation plan in which the capitation payments are designed to cover all patient costs, physicians might only be responsible for patient costs up to a maximum of $5,000 or $10,000 for any one patient. Terry, supra note 21, at 37. There might also be a cap on the total amount of costs for which the physicians are responsible. ALLEN J. SORBO, DOCTORS RESOURCE SERVICE: COMPENSATION ARRANGEMENTS IN MANAGED CARE ORGANIZATIONS 5-7 (American Medical Association 1993).
30. Id. at 59,034-40.
31. Medicare and Medicaid Programs; Requirements for Physician Incentive Plans
Under the rules, capitation payments, bonuses and fee with- holds would not be considered “specific” payments made “as an inducement to reduce or limit medically necessary services,” and so would not be prohibited.\textsuperscript{32} However, through the requirement of stop-loss protection\textsuperscript{33} when physicians are at “substantial financial risk,”\textsuperscript{34} there would be restrictions on the amount of financial risk that could be shifted to physicians.\textsuperscript{35} Substantial financial risk would exist when financial incentives place more than twenty-five percent of a physician’s income at risk, but only if the incentives are based on a patient panel size of 25,000 or fewer patients.\textsuperscript{36} When incentives are based on a patient panel size of more than 25,000 patients, there would not be any limit on the level of financial incentives that could be used.\textsuperscript{37} In cases of substantial financial risk, stop-loss protection would have to be provided on either an aggregate or per-patient basis.\textsuperscript{38} If aggregate stop-loss protection is provided, then it must cover ninety percent of the losses beyond the twenty-five percent of income placed at risk.\textsuperscript{39} If stop-loss protection is provided on a per-patient basis, then the level of protection would depend on the size of the patient pool, with great-
er protection required for smaller patient pools, and the stop-loss protection still covering ninety percent of losses above the per-patient limit. As these details indicate, there would be no absolute limit on the level of risk sharing. If these rules seem complicated, it is because they are complicated.

2. Virtues of Financial Incentives

While the dangers of financial incentives are very real, there are also very important benefits to using these incentives to limit health care costs. There are two primary advantages of financial incentives. First, their use ensures that the persons who ultimately must be responsible for cost containment—physicians—have sufficient incentive to pursue cost containment. Second, financial incentives preserve the ability of physicians to individualize the care they provide their patients.

a. Ensuring Sufficient Incentive to Contain Costs

With financial incentives to limit care, health care plans effectively shift part of the risk of excessive health care costs to physicians. If health care costs are high, then the physicians will suffer a reduction in their compensation. Their bonuses will be smaller, less of their fee withholds will be returned, or less of their capitation fees will be left as income after expenses. While this shifting of risk poses dangers to patient welfare, it also ensures that physicians have sufficient incentive to restrain health care costs.

It is critical to give physicians sufficient incentive to pursue cost containment because they ultimately must assume much of the responsibility for necessary cost containment. It simply will not be possible to hold health care costs to a manageable level unless physicians begin to make cost considerations an integral part of their decision-making. To be sure, physicians have always considered financial costs to some extent when making medical decisions. For example, when deciding whether to offer a particular treatment to a patient, physicians have always had

40. Id. at 13, 448.
41. This is a change from the proposed rules. Id. at 13, 440.
to consider not only whether the treatment’s benefits exceeded its risks but also whether there was an alternative treatment that provided the same net benefits at lower cost. Now, however, physicians must also consider whether the benefits to the patient from a particular treatment are great enough to justify the treatment’s costs when there are other patients in need of treatment and not enough resources to provide every patient all medically beneficial care.

The reason why it is necessary for physicians to become responsible for cost containment is not because they are well-suited for that role. Indeed, they are not well-suited to serve as rationers of medical care. The argument for vesting physicians with responsibility for cost containment is that the alternatives are even worse. First, I will discuss why physicians are poorly suited for this rationing role. Then, I will discuss why they are still better suited than anyone else.

There are several reasons why physicians should not serve as rationers of medical care. First, physicians cannot possibly assimilate all of the information needed to make rationing decisions. When deciding whether to offer a patient a particular treatment, physicians would need to know not only how much benefit the patient might receive from treatment, how likely it would be that the benefit would be realized, and how much it would cost for the treatment, but also what other benefits would be realized if the funds that would be used to pay for the treatment were used instead for other patients. Second, there would be a great deal of inconsistency from physician to physician. Some physicians would err in favor of conserving society’s limited resources; others would err in favor of treating the patient before them. Whether a patient will be treated, then, may turn more on the personal views of the patient’s physician than on any overarching rationing principles. Like

42. Sulmasy, supra note 1, at 921.
43. Even before rationing became a serious concern, physicians varied widely in their use of certain procedures. One study demonstrated that patients in Boston were much more likely to be hospitalized than similar patients in New Haven. John E. Wennberg et al., Are Hospital Services Rationed in New Haven or Over-Utilized in Boston?, THE LANCET, (May 23, 1987, at 1185) (comparing use and costs of hospital services over a one-year period for a substantial majority of hospital admissions in Boston and New Haven). Another study found that some physicians at one hospital were twice as likely as their colleagues to perform cesarean section, even after con-
litigants who engage in forum shopping to find the most favorable law for their case, patients would engage in clinic shopping to find the physicians most likely to favor their needs over the needs of other patients. Third, physicians have no special expertise in making rationing decisions. These are value judgments about the proper use of medical resources that laypersons are as qualified as physicians to make.\textsuperscript{44} Whether permanently unconscious patients should be treated with ventilators is a question that can be settled not by medical principles but by broader philosophical or political considerations about the appropriate allocation of limited resources.\textsuperscript{45} Fourth, it is not on-
trolling for differences among the patients. George L. Goyert et al., \textit{The Physician Factor in Cesarean Birth Rates}, 320 NEW ENG. J. MED. 706 (1989) (studying prospectively all deliveries over a 12-month period at a community hospital that handled deliveries only for insured women who were at "very low risk" for obstetrical complications).

Studies on the withdrawal of life-sustaining treatment from irreversibly ill patients also show that the personal views of physicians are a better predictor of patient care than are any overarching principles about end-of-life care. David Orentlicher, \textit{The Illusion of Patient Choice in End-of-Life Decisions}, 267 JAMA 2101 (1992); David Orentlicher, \textit{The Limitations of Legislation}, 53 MD. L. REV. 1255, 1280-301 (1994).

44. Consider the following example that illustrates how medical judgments are really no different in kind than other value judgments. As a general rule in medicine, obstetricians offer amniocentesis to check for Down syndrome in pregnant women without a family history of Down syndrome only if the women are at least 35 years old. Joe Leigh Simpson, \textit{Genetic Counseling and Prenatal Diagnosis, in OBSTETRICS: NORMAL AND PROBLEM PREGNANCIES} 269, 278 (Steven G. Gabbe et al., eds. 2d ed. 1991). This general rule reflects, in part, the fact that, when the woman is age 35 or over, the risk that the fetus will suffer from Down syndrome is equal to or greater than the risk that the amniocentesis will inadvertently abort the fetus. Susan P. Pauker & Stephen G. Pauker, \textit{Prenatal Diagnosis—Why Is 35 a Magic Number?}, 330 NEW ENG. J. MED. 1151 (1994). In other words, the medical community has concluded that women should be offered amniocentesis only when the risk of the fetus being afflicted with Down syndrome equals or exceeds the risk of aborting a normal fetus. Now, this may be a reasonable balance to draw, but it is also the case that many women may have very strong feelings about not having a child with Down syndrome and may therefore want to undergo amniocentesis unless the risk of an abortion is five, ten or even twenty times that of the risk of a Down syndrome fetus. These women might reason that they can always try to become pregnant again, but they cannot undo the birth of a child with Down syndrome. In short, reasonable people can differ on the appropriate place to draw the balance, and there is nothing about medical expertise that helps us settle the question.

ly the case that physicians lack the expertise and the authority to make rationing decisions, it is also the case that acting as rationers creates for physicians a serious conflict of interest between the needs of their own patients and the needs of other patients. As a result, if physicians become responsible for rationing decisions, patients may become increasingly distrustful of their physicians. Patient trust may be eroded as individuals wonder whether they are receiving all necessary treatment or whether their physician is withholding some care because of the needs of other patients. For all of these reasons, it has been the traditional view in medical ethics that physicians must not have responsibility for making rationing decisions when treating their patients.\(^46\) Under this view, physicians can implement rationing decisions made by someone else, but they cannot make rationing decisions by themselves at the bedside. Thus, the traditional view calls for special committees or panels to establish rationing guidelines for physicians to follow when making medical decisions.\(^47\)

While the arguments against physician as rationer are very strong, they ultimately are inadequate to overcome the arguments in favor of physicians' responsibility for rationing decisions. There are two important challenges to the traditional view that physicians should not serve as bedside rationers of health care. First, it is not clear that this is really what patients want. While patients may want their physicians to do "everything" once they are sick, they may have very different preferences before they become ill. In advance, patients may prefer that their physicians act as wise stewards of health care resources, balancing individual patient needs with the needs of other patients, so that resources will be available when they are truly needed.\(^48\) There is considerable merit to this view; however, it does not require that physicians act as rationers of

---


health care. It requires that health care resources be rationed wisely, but it leaves open the question of who should be responsible for making the rationing decisions.

It is the second challenge to the traditional view that ultimately renders the view untenable. It simply is not possible to have persons other than physicians develop rationing guidelines for physicians to implement. Not only is it not possible to maintain a distinction between the development and implementation of rationing guidelines, it is also not possible to take the responsibility for the development and implementation of rationing guidelines from physicians.

First, it is not possible to maintain a distinction between developing rationing guidelines and implementing them. The argument is analogous to the argument that it is not possible for judges to maintain a distinction between making law and interpreting law. There are literally thousands, if not millions, of different medical decisions that must be made for patients. If someone suffers a head injury, when should x-rays be performed? When should a CT scan or MRI scan be performed instead of, or in addition to, x-rays? If a person has chest pain, when should an EKG or a gastroscopy be performed? When should patients with difficulty breathing be admitted to the hospital? When should patients who have gallstones have their gall bladder removed? If a patient needs to have his or her gall bladder removed, when should the gall bladder be taken out through a laparoscopic procedure and when should it be removed through open abdominal surgery? Which patients should be in an intensive care unit? If there is not room for everyone who needs intensive care in the intensive care unit, who should have priority? Which patients with coronary artery disease should undergo bypass surgery and which should be treated with medication? How long should patients remain in the hospital after delivering a baby, undergoing an appendectomy or receiving a kidney transplant? To what extent should the guidelines take into account individual variation from patient to patient? For physicians to act only as implementers of rationing guidelines, someone else would have to develop answers to all of these questions for physicians. Physicians would then figure out whether the patient falls into the treatment or non-treatment category. Yet, it takes time to assess the value of a par-
ticular treatment and to decide whether it should be covered. From 1992 through 1995, the federal Agency for Health Care Policy and Research issued practice guidelines for only eighteen medical problems, at a cost of $500,000 to $1 million per guideline. When guidelines are developed, they leave as many questions unanswered as answered. Oregon spent several years and millions of dollars developing its rationing system, and it only addressed a small percentage of rationing decisions. For example, while Oregon covers treatment for heart attacks, its rationing plan does not make any effort to resolve the question whether physicians should use streptokinase or t-PA as the medication to dissolve the clot that caused the heart attack. The Oregon Plan also addresses only decisions about when treatment should be provided, without providing guidance to physicians when they are deciding how much of a diagnostic workup to undertake for a patient. Even if detailed guidelines could be developed, many of them would likely become outdated by the time they were issued. Medical knowledge is constantly evolving, so only reasonably general guidelines can account for changes in information and technology. In short, it is not possible for health care plans to assume responsibility for the development of specific rationing guidelines which physicians would implement when treating their patients.

49. PHYSICIAN PAYMENT REVIEW COMMISSION, ANNUAL REPORT TO CONGRESS 374-75 (1995).
50. This is a question of considerable debate in medicine, since t-PA costs $2,000 more per patient than streptokinase but may have a small but significant advantage over streptokinase in preventing deaths from heart attacks. The GUSTO Investigators, An International Randomized Trial Comparing Four Thrombolytic Strategies for Acute Myocardial Infarction, 329 NEW ENG. J. MED. 673, 678-80 (1993) (studying 41,021 heart attack patients in a prospective, randomized trial over 26 months in 1,081 hospitals in 15 countries); see also Valentin Fuster, Coronary Thrombolysis—A Perspective for the Practicing Physician, 329 NEW ENG. J. MED. 723 (1993).
51. Indeed, the Oregon plan calls for a full diagnostic evaluation and a recommendation from the physician as to the appropriate treatment, with limitations on the extent to which treatment will be covered. Robert Steinbrook & Bernard Lo, The Oregon Medicaid Demonstration Project—Will It Provide Adequate Medical Care?, 326 NEW ENG. J. MED. 340, 341 (1992).
52. Hall, supra note 1, at 701-703; Wendy K. Mariner, Outcomes Assessment in Health Care Reform: Promise and Limitations, 20 AM. J.L. & MED. 37, 41-42 (1994) (observing that practice guidelines cannot be specific enough by which to judge medical decisions since variations in individual circumstances and community resources need to be accommodated); Mechanic, supra note 2, at 1724-27.
It is also not possible for health care plans to develop general standards that can provide clear guidance for individual rationing decisions. The appropriateness of a particular test or treatment depends on the balancing of a number of factors, such as cost, likelihood of benefit, potential degree of benefit and potential duration of benefit, which vary from treatment to treatment and from patient to patient, and there is no formula that can tell a physician whether a treatment's high potential degree or duration of benefit outweighs its low likelihood of benefit. The best we can do is establish some general principles that must be applied in individual cases to make rationing decisions. Yet, just as general principles of law cannot determine the result for a particular legal question, general rationing principles cannot determine the result for individual rationing decisions. For example, while we can all agree that saving lives is an important goal of medicine but that there are limits to how much we can spend to extend every life, these principles do not tell us whether it was appropriate to separate the Lakeberg twins in the hope that one of the infants might survive. Physicians will have to bring to bear their own values when making rationing decisions. Different physicians will come to different conclusions—indeed, the Lakeberg family's Chicago physicians refused to operate, and Philadelphia physicians then agreed to perform the surgery—and there is no way to ensure that all physicians come to the same conclusion. In short, because specific guidelines cannot be created,

53. According to a recent report, the federal government's practice guidelines have had little effect in changing physicians' practices, in part because they are often too vague to give adequate guidance in specific situations. Joe R. Neel, Guidelines Go Unheeded: A Government Effort to Change Doctors' Behavior Draws Apathy Instead, PHYSICIAN'S WEEKLY, Aug. 22, 1994, at 13.


55. The Lakeberg twins were connected at birth, sharing parts of the heart, such that it was impossible for both to survive and improbable that even one would survive if the children were divided surgically. Ultimately, one died as a result of the surgery, and the second lived for about a year. Karen Brandon & Janet Cawley, Lakeberg Baby Dies; Medical Debate Lingers, CHI. TRIB., June 10, 1994, at 1.

56. Karen Brandon, Doctors Who Operated on Lakeberg Twins Faced Questions with No Easy Answers for Survivor, "What Are We Really Creating?", CHI. TRIB., Feb. 21, 1994, at 1.

57. Given the uncertainty about most medical decisions, it is not necessarily wrong to have variations from physician to physician. Mechanic, supra note 2, at
and general rationing principles will always be indeterminate for particular rationing decisions, the development and implementation of rationing guidelines must occur as intertwined endeavors. As a corollary, because each patient's circumstances are unique, every time physicians decide whether or not to provide a medical service, they are essentially both creating and implementing a new rationing policy.

The indeterminacy of rationing guidelines can be illustrated by two commentators' efforts to enunciate general rationing principles for physicians. Haavi Morreim has proposed that physicians judge each medical decision by its ability to be generalized. She argues that, when physicians are considering a particular test or treatment and they are concerned about its affordability, they should ask themselves whether the patient's health care plan could afford to have physicians provide the proposed test or treatment every time the same situation arises. While Morreim articulates an excellent principle, it cannot relieve physicians of the obligation to develop rationing policies when they make medical decisions. As already discussed, one of the major objections to physician decision-making is the fact that each physician will draw the balance between the needs of the patient before them and the needs of other patients differently, depending on their own values and assessments of what the system can afford. Morreim's approach does not adequately address that problem. Some physicians may deem cardiac care more important than psychiatric care; other physicians may reverse the priority.

Susan Wolf has suggested a sliding scale approach, with greater obligations to provide treatment when harm can be prevented than when benefit can be conferred. Specifically, she argues that physicians have: (a) the "strongest duty" to provide treatment when the treatment is likely to prevent "great harm" to the patient; (b) a "strong duty" to provide treatment when the treatment is likely to prevent "some harm;" (c) a "duty" to provide treatment when the treatment is likely to confer "great

1724-29. Nevertheless, the point stands that it is the individual physicians who are ultimately making the rationing decisions.

benefit;” and (d) a “weak duty” to provide treatment when treatment is likely to confer “some benefit.”59 Wolfs basic point is an important one: the greater the need for treatment, the greater the obligation to provide it. Yet her guidelines too lack sufficient specificity. Where is the line between great harm and some harm, or between great benefit and some benefit? What will a physician do when faced with a situation for which there is a “weak duty” to provide care? Does that mean there is a presumption in favor of treatment but that the presumption should be overridden if there are countervailing circumstances? Which countervailing circumstances would count? Would the obligation to treat turn on the health plan’s current balance sheet, or on whether there are other patients with more compelling needs vying for the physician’s time? What exactly is the distinction between preventing harm and conferring benefit? If a physician lowers a patient’s risk of dying, is that preventing harm (avoiding death) or conferring benefit (prolonging life)?

It is not only the case that we cannot separate the development and implementation of rationing guidelines. It is also the case that responsibility for the development and implementation of rationing guidelines must rest with physicians. As I have observed, it is not possible for managed care plans to establish rationing guidelines that will resolve all rationing questions. Accordingly, physicians will frequently be faced with rationing decisions for which there are no clear answers. In theory, physicians could bring these decisions to another party, for example, a designated agent for the health plan’s subscribers60 or a claims reviewer for the health care plan. However, given the tremendous number of decisions that must be made, it would be too cumbersome to bring them to a third party as they arose. Physicians would constantly be on the telephone and would end up spending as much time getting answers to coverage questions as they did taking care of their patients. Moreover, on what basis will physicians decide that a particular decision is covered by general rationing guidelines, and it is therefore not necessary to seek guidance from someone else?

59. Wolf, supra note 1, at 35-36.
60. Veatch, supra note 25, at 481-82.
The decision whether to seek guidance is itself a decision about rationing.\textsuperscript{61}

On the other hand, if physicians assume responsibility for rationing, it will be administratively very efficient. Physicians will know much of the information about the benefits, risks and costs of treatment relevant to making the rationing decisions before them. Their greater intimacy with their patients and their proximity to the clinical setting give them a greater sensitivity to the intangible considerations than more distant potential decision-makers can have.\textsuperscript{62} It is no accident that physicians have had responsibility for some seventy-five percent of health care expenditures.\textsuperscript{63} Nor is it an accident that physicians have historically had responsibility for deciding when treatments should be offered to patients even though the decisions are essentially value judgments, for which physicians have no special expertise,\textsuperscript{64} rather than “medical” judgments, for which physicians might have some special expertise.\textsuperscript{65}

The argument for relying on physicians to make rationing decisions, then, is not that they are good decision-makers, but that there is no better way to make rationing decisions, and that there are important efficiencies to having physicians make these decisions. Once it is recognized that physicians must both determine and implement rationing policies, it follows that health care plans need to ensure that physicians incorporate cost considerations into their decision-making.

b. Preserving Individuation of Patient Care

While financial incentives are not the only way to make physicians conscious of costs in their medical decision-making, they encourage cost containment without sacrificing the ability of physicians to individualize the care they provide their patients.

\textsuperscript{61} Carolyn M. Clancy & Howard Brody, Managed Care: Jekyll or Hyde, 273 JAMA 338, 339 (1995).
\textsuperscript{62} Mechanic, supra note 2, at 1727-28.
\textsuperscript{63} Carolyn Long Engelhard & James F. Childress, Caveat Emptor: The Cost of Managed Care, 10 TRENDS IN HEALTH CARE, L. & ETHICS 11, 13 (1995).
\textsuperscript{64} Tom Tomlinson & Howard Brody, Futility and the Ethics of Resuscitation, 264 JAMA 1276, 1277-79 (1990).
\textsuperscript{65} See supra notes 44-45 and accompanying text.
There are essentially two ways for health care plans to ensure cost-conscious practices by their physicians for the bulk of decisions that are not controlled by formal rationing guidelines. Health care plans can use personal financial incentives for physicians, or they can impose caps on the resources available to physicians with which the physicians provide care. As discussed earlier, personal financial incentives include salary, capitation, fee withholds, bonuses and expanded capitation. Resource caps generally take one of two forms: fixed caps on specific medical services or an overall fixed budget. An HMO, for example, can limit the number of blood analyzers, MRI scanners, intensive care unit beds, and operating suites that it owns, forcing physicians to recognize that every time they order a test or provide a treatment, they are making that test or treatment unavailable for other patients who might have a greater need for the test or treatment. Or, a health care plan could make available a fixed budget to its physicians and insist that the physicians not exceed the budget in providing health care. Physicians will recognize that, every time they order a test or provide a treatment, there will be fewer resources available for other patients who might have a greater need for the resources.

Financial incentives and overall fixed budgets both have two important and related advantages over fixed limits on specific services—greater individuation of patient care and greater physician autonomy.

i. Greater Individuation of Patient Care and Greater Physician Autonomy

Patients and physicians should prefer financial incentives to caps on specific services. With caps on specific services, physicians will face substantial limitations on their ability to tailor their care to the needs of their patients. The mix of health care services that physicians can provide will be constrained by the mix of services and facilities that the HMO has established in advance. For example, in HMOs that have a high ratio of spe-

66. Supra part III.A.
67. Ellman & Hall, supra note 12, at 193-94.
68. This is different from capitation because the physician's compensation would be separate from the budget for health care services.
cialists to primary care physicians, patients will receive more specialty care, while patients in HMOs with a low ratio of specialists to primary care physicians will receive more primary care. If the HMO has a shortage of MRI scanners, patients who need MRI scanning will be underserved. The HMO will likely employ a formulary\textsuperscript{69} that limits which drugs the HMO's physicians can prescribe, and it will monitor lab tests, x-rays and other ancillary services to identify physicians who use these services relatively frequently. HMOs and other managed care plans often go even further to influence physician decisions. They may impose caps on the number of days a patient can be hospitalized for different procedures, with different caps for different procedures—two days for labor and delivery, five days for an appendectomy, ten days for coronary artery bypass surgery, and so on.

Many of the limitations are based on the needs of the typical or average patient and therefore fail to take into account the particular needs of the unusual patient. If a health plan requires discharge of a mother and child within twenty-four hours after delivery, the plan's rule does not accommodate the needs of those mothers and children whose complications become apparent only after twenty-four hours or those mothers who need extra assistance with breastfeeding and other parenting activities.\textsuperscript{70} Or, if a health plan authorizes no more than ten days of hospitalization for a patient undergoing peripheral vascular surgery, the plan will not meet the needs of the patient with a complicated post-operative course who needs an extra week in the hospital.\textsuperscript{71} If physicians are given broad latitude

\textsuperscript{69} Drug formularies are systems in which health care plans approve only certain drugs for use or approve some drugs for limited use, unless the patient pays out-of-pocket for the unapproved use. Drug formularies predate managed care and have been used for many years in hospitals to ensure both higher quality and lower cost of care.

\textsuperscript{70} COUNCIL ON SCIENTIFIC AFFAIRS, AMERICAN MEDICAL ASSOCIATION, IMPACT OF 24-HOUR POSTPARTUM STAY ON INFANT AND MATERNAL HEALTH (June 1995). Because of concerns about discharges after 24 hours, some states have passed legislation requiring health care plans to pay for a second day of hospitalization after delivery. Jon Nordheimer, New Mothers Win Second Day of Hospital Care in New Jersey, N.Y. TIMES, June 29, 1995, at B1.

\textsuperscript{71} See, e.g., Wickline v. State, 239 Cal. Rptr. 810 (1986) (patient suffered leg amputation following allegedly premature discharge from the hospital). While health plans permit physicians to seek exceptions to their rules, exceptions are not always
in allocating health care resources, they can individualize the care, taking into account the particular needs and circumstances of each patient.\textsuperscript{72}

In contrast to limits on specific services, consider the alternatives of an overall fixed budget or the most extreme form of financial incentive, capitation fees that are designed to cover all of the patient’s health care needs (“global” capitation fees). The fixed budget or capitation fees that physicians would receive for their assigned group of patients would have to cover the patients’ office visits, referrals to other physicians, laboratory tests, x-rays, hospitalizations and other health care services. Under such a payment system, physicians are subject to only one constraint—that the total costs for all of their patients not exceed their fixed budget or the total sum of all of their capitation fees.\textsuperscript{73} There would be no utilization reviewers needed to approve non-emergency admissions to the hospital or to regulate the numbers of days that patients spend in the hospital. There would be no need for health plan administrators to monitor the number of cholesterol tests or blood sugar measurements ordered by physicians, nor would there be a need to restrict the number of drugs that physicians can prescribe to

\textsuperscript{72} H. Gilbert Welch, \textit{Should the Health Care Forest Be Selectively Thinned by Physicians or Clear Cut by Payers?}, 115 ANNALS INTERN. MED. 223, 224 (1991). A recent study of the effects of drug formularies in HMOs found that, as HMOs imposed greater restrictions on access to prescription drugs, overall health care costs were higher. Ron Winslow, \textit{Limiting Drugs a Doctor Orders May Cost More}, WALL ST. J., Mar. 20, 1996, at B1.

\textsuperscript{73} More precisely, their capitation fees must equal the sum of their patients’ health care costs plus their own income.
their patients. Psychiatrists would not be told whether to treat a patient in the hospital or through office visits, nor would they be told how many therapy sessions to provide to each patient.74 Physicians would be able to allocate their fees in the manner that they deem most desirable, both in terms of how many resources they allocate to each patient under their care and in terms of which kinds of health care services are provided to their patients.

If health plans try to limit costs by imposing greater constraints on physician discretion, they risk not only endangering patient welfare but also undermining the very nature of medicine as a profession, causing conflict between health plans and physicians and alienating physicians from their work.75 Physicians, like their patients, have a strong need for personal autonomy. Society respects individual dignity when it permits people to have control over essential aspects of their lives, and, for most people, professional expression is a critical element of personhood. As Robert Gordon has observed, control over the working environment is a basic precondition to the realization of a free, authentic personality.76 And, as studies have consistently demonstrated, people need a good deal of independence in the workplace to be content with, and productive in, their employment.77

75. Frankford, supra note 1, at 79-101. While Frankford expresses concern about the use of financial incentives, his concern is ultimately about the linking of financial incentives with treatment protocols or practice guidelines that are designed to dictate physicians' medical decisions. It is the restriction on physician autonomy, not the use of financial incentives, that is problematic in Frankford's view. Id.
c. Effective Cost Containment

While financial incentives and overall fixed budgets both preserve the ability of physicians to individualize patient care, financial incentives offer an important advantage toward the goal of effective cost containment.

Because financial incentives give physicians a constant incentive to lower costs, physicians will be driven constantly to practice in the most cost-effective way. Physicians will have an ongoing incentive to lower health care costs. When overall budget caps are used, the most likely result is that physicians will use up the entire amount of resources that are at their disposal. There is no incentive to use fewer resources than those available. Consequently, health care costs are likely to creep up slowly over time. Indeed, countries like Canada that rely heavily on budget caps to limit health care spending are experiencing problems with health care cost inflation similar to those in the United States.78 Competition among different health plans for subscribers might provide a constant incentive to reduce costs.79 However, like other industries, the health care insurance market will gradually become more concentrated, and competitive pressures among different health plans will diminish.

C. Alternatives to Financial Incentives to Limit Care

Critics of financial incentives argue that health care plans need not rely on financial incentives, but that, in addition to resource caps, there are other methods to contain costs. For example, health care plans might be able to (1) use educational methods to ensure cost-conscious behavior by physicians; (2) link financial incentives to quality of care rather than quantity of care; or (3) give patients, rather than physicians, the financial incentive to limit care. While all of these alternatives are

useful to some extent, they are at best a complement to financial incentives or resource caps.

1. Education

Accomplishing change through education is always a laudable goal, and one would expect physicians to be especially responsive to new information, given the amount of time that physicians spend in school and training before beginning their professional careers. Yet, as a practical matter, education cannot offer very much in the way of ensuring more cost-conscious behavior by physicians.

First, the empirical data suggest that physicians are in fact not very responsive to educational efforts that are designed to change physician practices. The empirical data come from a number of sources. For example, for the past two decades, there has been increasing attention to the development of “practice guidelines,” which, as their name suggests, are formal recommendations that are designed as guides to physician practice. Practice guidelines exist for a wide range of medical conditions or treatments, including the timing of childhood vaccinations,\textsuperscript{80} the situations in which a child should be delivered by cesarean section\textsuperscript{81} and the patients for whom coronary artery bypass surgery is appropriate.\textsuperscript{82} These guidelines are developed by panels of medical experts based on their review of published research and their own clinical experience.\textsuperscript{83} So far, the evidence indicates that even though physicians may be familiar with practice guidelines and agree with them, the issuance and dissemination alone of guidelines does not have a significant impact on physician practices.\textsuperscript{84}

\textsuperscript{80} American Academy of Pediatrics, Report of the Committee on Infectious Diseases 5-60 (21st ed. 1988).
\textsuperscript{81} Jacqueline Kosecoff et al., Effects of the National Institutes of Health Consensus Development Program on Physician Practice, 258 JAMA 2708, 2709 (1987).
\textsuperscript{83} John T. Kelly & James E. Swartwout, Development of Practice Parameters by Physician Organizations, 16 QUALITY REV. BULL. 54 (1990).
\textsuperscript{84} Kosecoff, supra note 81, at 2712 (studying the effects of four sets of practice guidelines in the case of 2800 patients in 10 hospitals in one state during the two years before and two years after issuance of the guidelines and finding no significant
Other educational efforts have shown more, but still limited, success. A number of researchers have examined the effects of giving physicians guidelines or other information aimed at reducing the costs of care for the physicians' patients, and following up with feedback to the physicians about their actual practices compared with those of other physicians or with formal guidelines. These studies have had mixed results, with some showing significant improvement and others finding no significant change. There are several reasons why these studies are not very encouraging. First, not only did many of the studies not show any benefit from the efforts to improve physician practices, but the published studies undoubtedly provide an exaggerated view of the effectiveness of the efforts. This is because studies that show positive results are more likely to be accepted for publication than studies that show no benefit.

85. Generally, the information is designed both to eliminate unnecessary testing and ensure that necessary tests are not omitted.

86. See, e.g., John E. Billi et al., The Effects of a Low-Cost Intervention Program on Hospital Costs, 7 J. Gen. Int. Med. 411 (1992) (studying the effects of a pamphlet with cost-saving strategies and feedback on costs incurred for residents at a teaching hospital over a one-year period and finding a 7.8% decrease in length of stay and a 7.1% decrease in overall costs incurred for patients studied); Kim A. Eagle et al., Length of Stay in the Intensive Care Unit: Effects of Practice Guidelines and Feedback, 264 JAMA 992 (1990) (studying the impact of practice guidelines in the care of more than 1000 patients located in a hospital's intensive care units over a 16-month period and finding that the average length of stay in the units had declined); Linda M. Frazier et al., Can Physician Education Lower the Cost of Prescription Drugs?: A Prospective, Controlled Trial, 115 Annals Int. Med. 116 (1991); Larry M. Manheim et al., Training House Officers to be Cost Conscious: Effects of an Educational Intervention on Charges and Length of Stay, 28 Med. Care 29 (1990) (studying the effects of 12-14 hours of education over a two-month period with feedback on actual practices for 105 interns at an academic medical center).

87. See, e.g., Thomas A. Parrino, The Nonvalue of Retrospective Peer Comparison Feedback in Containing Hospital Antibiotic Costs, 86 Am. J. Med. 442 (1989) (finding no impact on antibiotics costs at a hospital from sending monthly letters to the physicians in the top 50% of antibiotics use notifying them of their spending in relation to their colleagues); Steven A. Schroeder et al., The Failure of Physician Education as a Cost Containment Strategy: Report of a Prospective Controlled Trial at a University Hospital, 252 JAMA 225 (1984) (studying the impact of weekly one-hour lectures with feedback on actual practices for 225 resident physicians over a two-year period and finding no significant impact on overall costs of care); Sankey V. Williams & John M. Eisenberg, A Controlled Trial to Decrease the Unnecessary Use of Diagnostic Tests, 1 J. Gen. Intern. Med. 8 (1986).

88. Kay Dickersin, The Existence of Publication Bias and Risk Factors for Its
Second, many of the studies that showed positive results were not adequately controlled for confounding variables. For example, a program designed to reduce laboratory tests may in fact result in such a reduction, but there may also be an offsetting increase in x-rays or other diagnostic procedures. Or, if a program resulted in shorter hospital stays, the lowered costs may have been offset by an increase in outpatient costs after discharge. Many of the studies looked at only part of patient care costs rather than overall costs, so it is not possible to tell whether the interventions were effective. Third, the educational interventions were sometimes so expensive that their costs were not much lower than their savings. Fourth, after many of the interventions that were successful while they were in effect, the physicians gradually reverted to their previous practices.

Some commentators have suggested that, if we analyze the successful educational interventions, we can discover which kinds of interventions work and under which circumstances. From this knowledge, it is argued, effective educational interventions could be developed. In addition, most of the studies

89. JOHN M. EISENBERG, DOCTORS' DECISIONS AND THE COST OF MEDICAL CARE 100 (1986).
90. Schroeder, supra note 87, at 228-29 (studying the effects of four hours of intensive review of interns' test-ordering behavior on the frequency with which eight out of a group of 24 interns ordered laboratory tests and x-rays).
91. See, e.g., Albert R. Martin, et al., A Trial of Two Strategies to Modify the Test-Ordering Behavior of Medical Residents, 303 N. ENG. J. MED. 1330 (1980) (studying the effects of four hours of intensive review of interns' test-ordering behavior on the frequency with which eight out of a group of 24 interns ordered laboratory tests and x-rays).
92. EISENBERG, supra note 89, at 116-17; Schroeder, supra note 83, at 230.
93. See, e.g., Thomas J. Meyer et al., Reduction of Polypharmacy by Feedback to Clinicians, 6 J. GEN. INTERN. MED. 133 (1991) (studying 290 patients at a single clinic who were receiving more than 10 medicines each and finding that a letter to the patients' physicians recommend a reduction in the number of drugs led to significant decreases in use four and six months after the sending of the letter, but no effect 12 months after the sending of the letter); William M. Tierney et al., The Effect on Test Ordering of Informing Physicians of the Charges for Outpatient Diagnostic Tests, 322 N. ENG. J. MED. 1499 (1990) (studying the effect of informing 60 physicians of the costs of laboratory tests when the physicians ordered the tests over a 26-week period and for an additional 19 weeks after the researchers stopped providing the information about costs).
of education and feedback occurred when physicians still practiced primarily in a fee-for-service environment in which more tests and procedures meant more income. Consequently, physicians faced countervailing incentives that may have prevented the educational efforts from being successful. For example, physicians may have continued performing unnecessary cesarean sections because they believed the procedures would reduce their risk of malpractice liability, they were responding to financial and other personal incentives to perform cesarean sections, and/or they were acceding to their patients' requests for cesarean sections. In a managed care environment, in which more services means less income, a physician's personal incentives would augment rather than oppose educational efforts.

Yet, even with optimal educational efforts, it will not be possible to ensure sufficient cost consciousness by physicians. The argument here is a corollary to the argument for why it is not possible for health care plans, or anyone else, to provide specific rationing guidelines for physicians. If health plans cannot establish specific guidelines, then they do not have the body of information needed to educate physicians. In other words, if a health care plan does not know exactly how it wants its physicians to lower costs, what would its educational materials look like? If the education consists of general principles, then we are back to the problem of general principles being too vague to provide sufficient guidance to physicians in containing costs.

2. Utilization Review

Health care plans commonly use administrative processes to regulate the amount of care provided to their subscribers. For example, many plans require their subscribers to receive ap-

95. If an infant is born with a serious injury and the parents sue, a jury might attribute the injury to the use of a vaginal delivery even if the injury in fact occurred before the woman's labor commenced.

96. Physicians are often paid a higher fee for a cesarean section than a vaginal delivery. Even if the obstetrician receives the same fee for a vaginal delivery, cesarean sections require less time thereby freeing up the physician for other activities, including income producing activities.

97. The patients may want to avoid a painful and prolonged delivery. Lomas, supra note 84, at 1310.
In addition, as mentioned, plans often impose limits on the number of days that patients can be treated in the hospital for particular problems, and they may routinely review individual patient charts to ensure that patients are not being kept in the hospital too long. 

While utilization review has a role in cost containment, it has only a limited role. First, the cost savings from utilization review have been disappointing. Studies of the effect of utilization review in the Medicare program found that there were small reductions in hospital use but no net savings in costs. Some private health care insurers have been able to achieve modest reductions in health care expenditures, but even then the reductions are one-time savings with no impact of the utilization review program on the rate of growth of health care costs. There is an even more fundamental problem with relying on utilization review. Utilization review is essentially a type of cost containment in which the rationing decisions are made by persons other than physicians. Accordingly, for the same reasons that most rationing decisions must ultimately be left to physicians, utilization review cannot avoid the need for health plans to contain costs through financial incentives or resource caps.

3. Quality-Based Incentives

Many commentators have criticized financial incentives to limit care on the ground that they reward all decisions to withhold medical services, not only when the withheld care would

98. INSTITUTE OF MEDICINE, CONTROLLING COSTS AND CHANGING PATIENT CARE?: THE ROLE OF UTILIZATION MANAGEMENT 17-19 (Bradford H. Gray & Marilyn J. Field eds., 1989) [hereinafter CONTROLLING COSTS].
99. Id. at 18.
101. CONTROLLING COSTS, supra note 98, at 3-4; Thomas M. Wickizer et al., Does Utilization Review Reduce Unnecessary Hospital Care and Contain Costs?, 27 MED. CARE 632, 645 (1989) (comparing hospital services and costs over a two-year period for 91 insured groups governed by utilization review with those of 132 insured groups that did not operate under utilization review).
102. See supra notes 48-63 and accompanying text.
be unnecessary or only marginally beneficial but also when the withheld care would provide considerable benefit. These commentators argue that it would be much better to tailor financial incentives such that they reward cost cutting only when the cost cutting is cost effective. In other words, financial incentives should be linked to the quality of care provided, not the quantity of care provided. For some patients, it is cost effective to provide additional care, and physicians should not be penalized for providing that care.

There are several problems with this position. First, financial incentives to limit care do provide a strong incentive to limit only unnecessary or marginally beneficial care. This becomes apparent when financial incentives are considered from a long-term rather than short-term perspective. Because delays in intervention can allow a disease to develop or progress and become more costly to treat, incentives to limit care may actually result in more aggressive efforts by physicians to ensure that patients receive preventive and therapeutic services as early as possible. If physicians are penalized for high health care costs, they are more likely to try to prevent high costs from materializing. Indeed, many early proponents encouraged the development of HMOs because of their emphasis on preventive care, not simply as a means to contain health care costs, and studies indicate that people in HMOs receive more preventive care and more health-promotive activities than subscribers to traditional, fee-for-service plans.103 In short, it is quite possible that financial incentives to limit care will lead to more efficient utilization of health care resources.

Second, quality-based incentives are very difficult to design. It is not a simple matter to distinguish good from poor practice. For example, which measurements should be used? If we look at seemingly objective measures like death rates, we may not obtain sufficient data. Many diseases, though not potentially fatal, can seriously compromise quality of life.104 We could look at a person’s quality of life or functional status, but these sub-

jective measures are very difficult, and costly, to ascertain. More importantly, a patient may suffer a poor outcome not only because the physician gave poor care but for a number of other reasons, such as the patient's initially serious illness. Before quality of care can be assessed, confounding variables need to be eliminated, and this is often very hard to do. Indeed, the Health Care Financing Administration stopped reporting death rates of patients for each hospital because it was unable to sort out hospital quality from other contributors to the death rates. The difficulty in measuring quality of care is reflected by one study that found that, in order to obtain a reliable assessment of a physician's clinical skills by the physician's peers, the assessment would have to be based on the ratings of at least eleven different colleagues. Even if we settle on what our quality measures should look like, we rarely have adequate data for specific medical services to tell us when there is good quality of care. For many treatments, even commonly used ones, there are not enough well-designed studies to tell us whether the treatments actually work.

Third, and most important, it is not clear how we would know when a physician is practicing cost-effective medicine. As I have observed, it is not possible to establish rationing guidelines that address more than a small percentage of medical decisions. For all the other rationing decisions that physicians make, we must rely on physician discretion. That being so, we have no measures by which we can distinguish the cost-effective

105. Id.
106. Id.
108. David M. Eddy & John Billings, The Quality of Medical Evidence: Implications for Quality of Care, HEALTH AFF., Spring 1988, at 19, 21-23. Indeed, it is regularly asserted that, according to estimates of the Office of Technology Assessment (OTA), only 10-20% of medical practices are supported by well-controlled studies. Id. However, this estimate was not made by the OTA but by Kerr White without substantiation in an article written in 1968 that was subsequently cited in a 1978 report of the Office of Technology Assessment. UNITED STATES CONGRESS, OFFICE OF TECHNOLOGY ASSESSMENT, ASSESSING THE EFFICACY AND SAFETY OF MEDICAL TECHNOLOGIES 60, 94 (1978) (citing Kerr L. White, International Comparisons of Health Services Systems, 46 MILBANK MEMORIAL FUND Q. 117, 120 (1968)). Since then, the estimate frequently has been mistakenly attributed to the OTA. See, e.g., THE PEPPER COMMISSION, UNITED STATES BIPARTISAN COMMISSION ON COMPREHENSIVE HEALTH CARE, A CALL FOR ACTION: FINAL REPORT 41 (Sept. 1990).
physicians from the cost-ineffective physicians. We could identify a few measures of cost effectiveness and evaluate physicians on the basis of those few measures on the assumption that we would have a reasonable proxy for cost effectiveness generally. However, physicians could game the system by taking care with the measured treatments and thereby protecting their income, but otherwise not practicing cost-effective medicine.\textsuperscript{109}

4. Financial Incentives for Patients

A number of commentators have observed that, if costs need to be contained, then we should give patients rather than physicians the responsibility for rationing decisions. Patients are paying for their health care, and they should decide what they will receive for their health care dollars. While having employer-paid health care insurance has often insulated individuals from the economic consequences of health care decisions, we can modify health care coverage to ensure that patients realize a greater financial benefit by keeping their health care costs down. For example, if a person joins an HMO instead of subscribing to a more expensive fee-for-service plan, then the person could pocket the entire difference in costs between the two plans. Instead of paying a fixed percentage of the premium for whichever plan is chosen by the employee, employers could pay a flat amount toward the employee's premium.\textsuperscript{110} Financial incentives for patients could be used not only to influence a person's choice of health care plan but also to influence decisions to seek or accept care after the insurance is purchased. For example, a person's health care "premium" could be split between insurance coverage for catastrophic or other high cost, essential care, and a special account that can be used to pay for preventive care, routine care or other small medical bills.\textsuperscript{111} If there is money left in the special account at the end

\textsuperscript{109} Jost, supra note 104, at 1510;
\textsuperscript{110} Alain Enthoven and Richard Kronick, A Consumer Choice Health Plan for the 1990s: Universal Health Insurance in a System Designed to Promote Quality and Economy (pt. 1), 320 NEW ENG. J. MED. 29, 33 (1989). Similarly, the tax deductible amount of a health care insurance premium could be capped rather than allowed to increase as the cost of the premium increases. Id.
\textsuperscript{111} E. Haavi Morreim, The Ethics of Incentives in Managed Care, 10 TRENDS IN
of the year, it would be returned to the individual. To ensure that patients do not skip preventive measures that can avoid the need for high-cost care later,112 patients could be rewarded for seeking specified immunizations or screening tests (e.g., pap smears or mammograms).113 Giving patients a greater financial incentive to conserve health care resources can help contain health care costs. However, as I will argue, it is, at best, a supplement to methods targeted at physician behavior.

Before I discuss why there are limits to the utility of financial incentives for patients, I will explain why two of the common objections to patient-based incentives do not survive scrutiny. First, commentators have criticized these incentives on the ground that patients do not have sufficient knowledge or expertise to decide when medical treatment is worth its cost. Principles of patient autonomy, however, suggest otherwise. In the past two decades, patients have been given greater control over medical decisions on the grounds that medical decisions involve the highly subjective weighing of benefits and risks and that patients are in the best position to weigh those benefits and risks for themselves, even when the risks include death. If patients are able to reject health care because they do not like physical side effects or simply because they no longer want to live, they should also be able to reject health care because it is not worth its cost.114

Some commentators have argued that patients are not very sensitive to prices, and that health care is too important for patients to respond to price competition. This argument is also not very persuasive. People routinely risk their health for financial reasons. For example, many individuals work in mining and other hazardous occupations because they receive a higher wage as compensation for the risk. People also accept lower

112. This behavior would occur in some patients since they would be financially liable for preventive or screening care while the health care plan would be liable for later, more expensive care. Indeed, under traditional, fee-for-service plans, preventive care is typically not covered, and many patients do not seek the care.
113. Morreim, The Ethics of Incentives, supra note 111, at 59.
114. Morreim, Redefining Quality, supra note 111, at 96-97.
health care coverage in exchange for lower premiums, as the rapid growth of HMOs attests, and people enrolled in health plans with higher co-payments use fewer services.\textsuperscript{115} There are also young, relatively healthy, working persons who forgo health insurance because they do not believe that it is worth its cost to them.

There are nevertheless several reasons why patient-oriented incentives cannot replace, but can only supplement, physician-oriented measures. First, health care insurance greatly dilutes the financial benefits to patients who forego marginally beneficial care. Because the savings realized from foregone care will be shared with the other subscribers to the plan, the savings to the patient will be considerably lower than the actual savings to the plan. In other words, patients will always have an incentive to overutilize care once they are insured because they will not pay the full cost of care received nor will they realize the full savings of care foregone. Co-payments and deductibles can counter this problem somewhat, but patients will still not be paying the full cost of additional care once they have paid their premiums.\textsuperscript{116} Second, empirical data indicate that, when patients are required to pay co-payments and deductibles, they do not reduce their use of marginally beneficial care only; they also reduce their use of highly effective care.\textsuperscript{117}

\textsuperscript{115} Kathleen N. Lohr et al., \textit{Use of Medical Care in the Rand Health Insurance Experiment: Diagnosis- and Service-specific Analyses in a Randomized Controlled Trial}, 24 \textit{MED. CARE} S1, S18-S30 (1986) (studying more than 7,700 persons for three to five years each in six communities who were randomly assigned to health care plans with different co-payment levels for subscribers); Joseph P. Newhouse et al., \textit{Some Interim Results from a Controlled Trial of Cost Sharing in Health Insurance}, 305 \textit{N. ENG. J. MED.} 1501 (1981) (studying more than 7,700 persons for three to five years each in six communities who were randomly assigned to health care plans with different co-payment levels for subscribers).

\textsuperscript{116} Mechanic, \textit{supra} note 2, at 1715.

\textsuperscript{117} Paula Braveman et al., \textit{Insurance-Related Differences in the Risk of Ruptured Appendix}, 331 \textit{NEW ENG. J. MED.} 444, 448 (1994) (studying nearly 100,000 hospitalizations of California residents ages 18 to 64 years old for acute appendicitis over a five-year period and finding that patients in fee-for-service plans were more likely to suffer a ruptured appendix than patients in Health Maintenance Organizations and suggesting that this difference may have resulted from the fee-for-service patients being slower to seek care because of higher co-payments and deductibles); Lohr, \textit{supra} note 111, at S32-S36; Albert L. Siu et al., \textit{Inappropriate Use of Hospitals in a Randomized Trial of Health Insurance Plans}, 315 \textit{NEW ENG. J. MED.} 1259 (1986) (studying hospitalizations for 3400 adults in six communities who were randomly assigned for three to five years to health care plans with different co-payment levels for sub-
words, patients are not very discriminating purchasers of health care. Third, it is not clear that society is willing to hold patients to their bargains. If a person chooses a lower cost plan that denies certain life-saving treatments, and the patient ends up needing the treatment, we are likely to find that the patient will be given the care anyway. Consider, for example, what has been happening with health plan coverage of bone marrow transplants in conjunction with high-dose chemotherapy for breast cancer.\textsuperscript{118} There is a good deal of controversy about the value of this treatment. Some experts believe it is of clear benefit while others argue that we need more data before we can judge its efficacy.\textsuperscript{119} Given the uncertainty, a strong case can be made that bone marrow transplant for breast cancer is an experimental therapy. Yet, even when a health care plan expressly excludes experimental therapies, the plan often will extend coverage for bone marrow transplants to subscribers with breast cancer.\textsuperscript{120} At least one court has held a plan liable for not covering a bone marrow transplant when coverage was denied on the basis of an experimental therapy exclusion.\textsuperscript{121}

There is an even more fundamental problem with patient-based incentives. To rely exclusively, or even primarily, on patient-based incentives would require a degree of contract specificity that is not achievable in health care. For patients to agree to less care in return for lower costs, they would have to be told exactly what kinds of care and how much care they would receive at each premium level. If they paid $3,500 instead of $3,000, what extra care would they receive for their money? Would they get the more expensive clot dissolver t-PA instead of streptokinase for a heart attack? Would they get

\begin{footnotes}
\item 118. With this treatment, patients are given very high doses of chemotherapy, doses that are not ordinarily used because they kill too much of the person's normal bone marrow tissue in addition to killing the cancer cells. The higher doses can be used because bone marrow is removed from the patient before the administration of chemotherapy and reinjected after the administration of the chemotherapy.
\item 120. Donald W. Light, Life, Death and the Insurance Companies, 330 NEW ENG. J. MED. 498, 498 (1994).
\end{footnotes}
three days instead of one day in the hospital after giving birth? Would they receive treatment in an intensive care unit when they had a one percent chance of recovery instead of a five percent chance? The same kind of specificity would be required for catastrophic care plans that had special savings accounts. The plans would have to figure out exactly when to reward patients for seeking preventive or routine care and when to insist that the patient draw down the special account's reserves to pay for additional care. However, just as it is not possible for health plans to establish comprehensive rationing guidelines for physicians, it is not possible for health plans to write contracts with their subscribers that clearly detail when care will be provided and when it will not be provided. Indeed, health plan contracts are typically very general about the terms of coverage, whether the contracts are written by an HMO or a traditional indemnity plan. The problem with specificity applies whether we are talking about luxury or thrifty plans. For example, in the benefits booklet for its HMO Illinois, Blue Cross and Blue Shield of Illinois states that it will cover medical or surgical services provided by a physician as long as the services are performed or ordered by the subscriber's primary care physician. In its indemnity plan, Blue Cross and Blue Shield of Illinois covers medical or surgical services provided by a physician as long as the services are "medically necessary," which is defined as a service that "is required, in the reasonable medical judgment of Blue Cross and Blue Shield, for the treatment or management of a medical symptom or condition [where] the service or care provided is the most efficient and economical service which can safely be provided."

All of this is not to say that there is no role for patient-based incentives. As the growth of HMOs reflects, people will choose lower-cost plans in return for lower premiums. However, there is not much more that can be done with patient-based incentives than to use them to set the health plan's overall budget and to establish some general limitations on access to care.

122. Ellman & Hall, supra note 12, at 192.
People can be told that, in return for lower premiums, they will have a restricted choice of physician and hospital, that their primary care physician will have to authorize care before it is covered, and that certain kinds of care will be excluded (e.g., cosmetic surgery). Nevertheless, it will still be left to physicians to translate a health care plan's smaller budget into the actual bundle of services provided. If there is a restricted panel of physicians from whom patients can choose, those physicians will have to decide, in the bulk of cases, whether care should be provided. If the plan requires primary care physicians to authorize care, the primary care physicians will have to rely largely on their own judgment to decide whether care is covered by the plan.

IV. BALANCING THE VIRTUES AND DANGERS OF FINANCIAL INCENTIVES TO LIMIT CARE

There is no obvious answer to the question of whether financial incentives to limit care ought to be discouraged or encouraged. They create important advantages to the health care system by reversing the incentives toward ever-increasing health care costs and by facilitating individuation of patient care and physician autonomy. At the same time, they threaten the physician's fiduciary duty of responsibility to patients. What makes the balancing especially difficult is that the virtues and dangers are inversely proportionate to each other. Greater freedom of health plans to employ incentives to limit care means greater tailoring of care to the needs of individual patients and greater autonomy for physicians in their medical decision-making. However, it also means a greater conflict of interest between the needs of patients and the personal interests of physicians.

Despite the indeterminacy of the issue, we can come fairly readily to a few conclusions. First, we can quickly reject the option of prohibiting financial incentives to limit care entirely. Once health care plans eliminate compensation arrangements, like fee-for-service, that provide an incentive to provide care, there is no choice but to rely on compensation arrangements that provide an incentive to limit care. There is no neutral ground. As previously discussed, even a pure salary provides an
incentive to limit care since salaried physicians lose no income by spending less time with patients but instead free up time for other income-producing activities, like consulting, or for other personally rewarding activities, like research or leisure.

Given the impossibility of avoiding incentives to limit care entirely, the only question is how much of an incentive should be allowed. What we are looking for is a level of incentive that is large enough to make physicians conscious of costs without being so large that patient welfare is endangered. There is no clear answer to the above question, nor are there studies that have measured the impact of different levels of financial incentive on physician cost consciousness and on patient welfare. Nevertheless, the limited utility of alternative approaches suggests that there should be a significant role for financial incentives.

If we look to studies from industry on the relationship between financial incentives and worker performance, the data indicate that financial incentives improve worker performance. The data also indicate that financial incentives have a greater impact when they are combined with greater control by workers over the way their work is conducted. This latter finding suggests that financial incentives to limit care will be successful in lowering costs since they are accompanied by broad physician discretion over the allocation of health care resources. However, the data from industry tell us little about the degree to which the success of an incentive depends upon its magnitude.

One useful source of information for this question is a survey of HMO managers in which the managers were asked to indicate when a financial incentive would have a noticeable effect on the medical decisions of physicians and when a financial incentive would raise concern about the appropriateness of physician judgment. The researchers found that, if a finan-

127. Mitchell, supra note 125, at 69.
128. Alan L. Hillman et al., HMO Managers' Views on Financial Incentives and
cial incentive would account for no more than five percent of a physician’s income, only about five percent of managers felt that the incentive posed concerns, and only about five percent felt the incentive would have a noticeable effect on physician behavior.\textsuperscript{129} If the financial incentive were raised to as much as fifteen percent of a physician’s income, then still only about fifteen percent of managers were concerned, but roughly half of the managers felt that the incentive would affect physician behavior.\textsuperscript{130} If the incentive were as much as thirty percent of a physician’s income, more than eighty percent of the managers felt the incentives would affect physician behavior, but about half were also concerned about the appropriateness of physician judgment.\textsuperscript{131} If incentives were more than thirty percent of a physician’s income, eighty-eight percent of the managers felt the incentives would affect physician behavior, but fully ninety-one percent of managers were concerned about the appropriateness of physician judgment.\textsuperscript{132} From these data, it appears that financial incentives for physicians should be somewhere in the fifteen to thirty percent range; anything less would probably not be strong enough to ensure adequate cost consciousness by physicians, and anything larger would pose an undue risk to patient welfare. Other data suggest that the range for financial incentives should be narrowed somewhat to twenty to thirty percent. In particular, it is generally believed that, in private industry, the highest potential bonus for a worker must be at least twenty percent of the worker’s salary to provide sufficient motivation for high performance.\textsuperscript{133} Whether incentives are in

\textsuperscript{129} Id. at 212.

\textsuperscript{130} Id.

\textsuperscript{131} Id.

\textsuperscript{132} Id. Since the incentive levels were presented only in terms of ranges to the managers who were surveyed, we do not know how the managers would have responded to incentive levels between 15-30%. We only know their responses to incentives that were (a) less than 5% (b) less than 15% (c) less than 30% or (d) more than 30%. Id.

\textsuperscript{133} MITCHELL LOKIEC, PRODUCTIVITY AND INCENTIVES 175 (1977); RICHARD C. SMYTH, FINANCIAL INCENTIVES FOR MANAGEMENT 92-93 (1960). Some experts believe that the maximum potential bonus should be 35% or more of salary. H. K. VON KAAS, MAKING WAGE INCENTIVES WORK 7 (1971); Jay R. Schuster & Patricia K. Zingheim, Designing Incentives for Top Financial Performance, COMPENSATION & BENEFITS REV., May-June 1986, at 39, 44.
the fifteen to thirty percent or twenty to thirty percent range, they would fall within the range of incentives permitted by the rules of the Department of Health and Human Services.\textsuperscript{134}

While these incentive ranges are based on rather flimsy data and on workers who might respond to financial incentives differently than physicians, the ranges do comport with a general intuitive sense of what would be appropriate. Incentives in the five to ten percent range are likely too small to have the desired impact;\textsuperscript{135} incentives that are in the range of a third of income or more seem to present too great a risk of harm. Nevertheless, it is clear that the available data are not as strong as a basis for making policy in this area should be. It is critical that further research be undertaken to give us a better sense of the appropriate range for financial incentives.\textsuperscript{136}

Applying a range of fifteen to thirty percent to different kinds of payment plans would yield the following results. First, assume that a plan pays physicians by salary or by a capitation fee, and the capitation fee is designed to cover only the physician's direct services. To discourage overutilization of ancillary services, the plan withholds a portion of the physician's salary or capitation fees until the end of year, at which time the plan would return none, some or all of the withheld fees. The withheld fees should amount to fifteen to thirty percent of the physician's salary or capitation. Second, assume the plan pays by salary or capitation as in the first case, but uses a bonus arrangement to discourage overutilization of ancillary services. With this scenario, the bonus range should be fifteen to thirty percent of the sum of the physician's salary or capitation and the maximum possible bonus. As these examples suggest, physicians could not accept a global capitation fee de-

\textsuperscript{134} See \textit{supra} notes 32-41 and accompanying text.

\textsuperscript{135} See Hall, \textit{supra} note 1, at 773-774 (noting that incentives of 10\% or even 20\% are not likely to compromise care since they are similar to the amounts written off as bad debts or sacrificed through negotiated discounts by physicians as a routine matter).

\textsuperscript{136} It would be useful to conduct a study in which some physicians had an incentive of 10\% of income, others an incentive of 15\%, a third group an incentive of 20\%, a fourth group an incentive of 25\%, and a fifth group an incentive of 30\%. Researchers could measure the extent to which the different physicians limited health care expenditures for their patients and whether the cost reductions were accompanied by the inappropriate withholding of care.
signed to cover both their direct services and ancillary services unless stop-loss protection existed to prevent patient costs from consuming too much of the capitation fees: the stop-loss protection would have to ensure that no more than fifteen to thirty percent of the physician's income was at risk.

In addition to limiting the amount of income that could be at risk to be between fifteen and thirty percent, health care plans should take other steps to protect patient welfare. First, it is preferable to calculate incentive payments on an annual basis rather than more frequently. Since health care costs of a physician's patients will fluctuate from month-to-month, frequent incentive payments may result in physicians taking too short-term a view and conserving too much on resources when they are faced with a patient whose costs of care are very high. 137 Second, health care plans should ensure that the physician's incentive payments are based on the costs of a large enough group of patients. 138 With small groups of patients, it is possible to have a group whose costs are well below or well above average costs. However, financial incentives to limit care work on the assumption that a physician faces average costs overall and that the physician's high-cost patients are balanced by low-cost patients. If some physicians had patients requiring above average costs, it would not be possible for the physician to provide adequate care and realize an incentive payment. 139

Health plans can ensure that incentive payments are based on a large enough patient group by using incentive payments only when the physician's practice size reaches a threshold level 140 or by basing incentive payments on the cost performance of groups of physicians where the different physicians' practices together exceed the threshold level. 141 It is not clear how high

138. Id. at 25-26.
139. This issue is of particular concern when health plans pay physicians a capitation fee designed to cover all patient health care costs and there is no stop-loss protection. In other cases, when there are limits on the amount of a physician's income that is placed at risk, the size of the physician's practice is a less critical factor.
140. To be precise, the relevant number is the number of patients who are covered by the health plan's incentive arrangement, not the total number of patients in the physician's practice. One physician may have capitation arrangements with several insurers, and each arrangement must be viewed separately.
141. U.S. GENERAL ACCOUNTING OFFICE, supra note 137, at 25.
the threshold level must be.\textsuperscript{142} Third, there should be some financial penalties for inappropriate care. While it is not possible to link financial incentives solely to quality of care,\textsuperscript{143} it is important to ensure that physicians do not respond to financial incentives by skimping on necessary care. Accordingly, health care plans should routinely audit their physicians' care and reduce a physician's incentive payment if the physician delivers insufficient care. The lower the quality of care, the greater the reduction in payment.\textsuperscript{144}

It is important to note that, in addition to placing limits on the amount of risk that can be shifted to physicians, other safeguards already exist to protect patients from being harmed by financial incentives. First, it is possible that financial incentives to limit care will lead to care with fewer rather than more complications. As discussed above,\textsuperscript{145} if physicians are penalized for high health care costs, they are more likely to try to prevent high costs from materializing by treating patients aggressively and delivering preventive and therapeutic services as early as possible. Second, the threat of malpractice liability provides a strong deterrent to the withholding of necessary care. Physicians already are prone to practice defensive medicine—their perception of the risk of a malpractice lawsuit is approximately three times the actual risk of suit.\textsuperscript{146} Hospitals and health care plans are also at risk from physician malprac-

\textsuperscript{142} Id. at 26. With global capitation fees, commentators seem to believe that there must be at least 5,000 to 10,000 patients in the capitation pool to ensure a representative patient group. See SORBO, supra note 28, at 3; Terry, supra note 21, at 32. Under the federal government's rules, a threshold of 25,000 patients was chosen. See supra notes 36-37 and accompanying text. However, as I have indicated, my view does not allow for global capitation fees.

\textsuperscript{143} See supra notes 103-109 and accompanying text.

\textsuperscript{144} One industrial company has adopted a model incentive plan in which workers are paid based on how much they actually produce, but shoddy workmanship has been kept low through several measures. Workers must rework faulty products on their own time; if the quality control department catches a defect before it leaves the plant, the worker loses bonus points; and if a defective product reaches a customer, the worker loses even more bonus points. The company has kept its cost of returned goods to less than 0.3% of overall costs for the past 50 years. Kenneth Chilton, Lincoln Electric's Incentive System: Can It Be Transferred Overseas?, COMPENSATION & BENEFITS REV., Nov.-Dec. 1993, at 21, 23.

\textsuperscript{145} See supra note 103 and accompanying text.

tice and therefore have strong incentives to monitor quality of care and ensure that appropriate care is not withheld by physicians. As a corollary, it is important that tort reforms not be enacted to diminish the deterrence of malpractice liability. In a fee-for-service system in which physicians already have financial incentives to overutilize care, concerns about avoiding liability ("defensive medicine") can easily aggravate the situation and accelerate the increase in costs. The threat of malpractice liability can therefore be counterproductive. However, when physicians have financial incentives to limit care, they will likely eliminate tests and procedures that serve no medical benefit but are done only for defensive reasons. Accordingly, much of the concerns about the tort system's effect on physicians' practices are not an issue under managed care, while the benefits of deterrence become more important.

V. CONCLUSION

While financial incentives to limit care raise clear ethical concerns, they provide important benefits that are difficult to realize with alternative approaches to cost containment. Physicians ultimately must assume responsibility for cost containment, and they will do so only if they are given financial incentives or are forced to incorporate cost considerations into their decision-making. Resource caps can force physicians to incorporate cost considerations, but caps on specific services prevent physicians from individualizing patient care. Overall budget caps are an alternative that preserves the physician's ability to individualize care. However, there may not be a sufficient incentive to contain costs from such caps. Moderate financial incentives have the virtue of constantly encouraging cost consciousness by physicians while also permitting physicians broad discretion to individualize the care they provide their patients. As long as the level of incentives is not allowed to become too high and there are other safeguards to protect patient welfare, financial incentives can serve an important role in cost containment.