

*Quality of Health Care***PART 5: PAYMENT BY CAPITATION AND THE QUALITY OF CARE**

CAPITATION and decapitation have nothing to do with each other, but you could hardly tell the difference when observing the intense debate over the value and risks of capitation in health care payment. Those who favor capitation seem to regard it as the sine qua non of effective containment of health care costs; those who oppose it suggest that it will spell nothing less than the end of medicine's commitment to patient advocacy and the Hippocratic oath. Meanwhile, health care coverage for more and more Americans is paid for in this way. Between 1987 and 1995, for example, the number of Medicare beneficiaries whose health care was paid for by capitation (under so-called risk contracts) almost tripled.^{1,2}

What has been and will be the effect of capitated payment on the quality of care? In this article, I will review the existing evidence and theories bearing on the relation of capitation to quality and will suggest some ways to ensure that the effect of capitation on the quality of care is a positive one.

DEFINITIONS OF TERMS

Many who comment on capitation as a method of payment seem actually to be concerned about other issues — associated, but not identical — in the organization and financing of medical care. Strictly speaking, the term “capitation” refers only to a payment mechanism — paying a provider a specific sum of money for the ongoing care of a person or group of people for a particular period of time. The sum is set in advance of the actual period of service, and it therefore represents a prediction, or at least an agreed-on estimate, of the amount of money that will be required to provide that care.

Technically, a contract based on capitation can include or exclude almost any medical service. One can provide payment on a capitated basis, for example, for only primary care visits, for primary care visits and associated laboratory tests, or for only referrals to specialists. Mental health care can be covered. So can specialty services or surgery, whether or not primary care is included.

When payment is based on capitation, somebody has to be in a position to sign the “provider” side of the agreement, which generally links capitation to some form of managed care, in which a provider assumes responsibility for the care designated under the agreement. The link is logical, but not inevitable. For example, an intermediary — a third party —

could accept a contract specifying a capitated payment for care and then simply buy the necessary services on the open health care market without making an agreement based on capitation with any providers at all.

Most commonly, however, the person or organization that promises to arrange care under a system of capitation tries not just to buy care, but also to manage it. For a staff-model health maintenance organization (HMO), this is the core business: to accept the risk entailed by prepayment and to configure care so the costs fall within that prepaid amount. In looser aggregations, like physician networks or independent practice associations (IPAs), contracts based on capitation may involve only a small fraction of a doctor's patients, and “managed care” may primarily take the form of rules about referral, requirements for precertification, and selective contracting with hospitals and specialists.

A capitated contract creates some degree of risk. The payment amount is set in advance of service, and on a population basis it might turn out afterward to have been the wrong amount. Someone has to make up the difference if the capitated fee is too low, and someone stands to gain if it is too high. But nothing about the idea of capitation as such specifies who assumes that risk.

Hillman et al., in their helpful analysis of “tiers” of managed care, show how the risk associated with capitated payments may, or may not, “penetrate” to the level of the actual delivery of care.³ A payer may pay a health care plan (the first tier) on a capitated basis for the care of a defined population of patients. That plan may or may not, in turn, transmit the capitated arrangement to a health care delivery organization (the second tier), such as a group practice or a hospital, which may or may not, in turn, pay the individual physicians themselves (the third tier) on a capitated basis. A 1995 survey found that primary care physicians in 56 percent of network or IPA-model managed-care plans were paid on a capitated basis, as were those in 34 percent of group- and staff-model HMOs and 7 percent of preferred-provider organizations.⁴ The nature of the risk assumed by individual physicians or groups did not depend on whether the health care plan was for-profit or not-for-profit. The majority of the managed-care plans try to control costs not by paying individual doctors on a capitated basis but rather through utilization review, requirements for precertification, or withholding of a percentage of income against potential deficits (the economist Alain Enthoven calls such methods “virtual capitation”).

Thus, capitation as a payment mechanism is never an isolated factor in determining the patterns of care. The effects of capitation depend on many other factors in the organization of care, such as the

form of the delivery system, the risk relation, the cultural norms, and the specific methods used to try to mold physicians' behavior. Unfortunately, the research literature tends to confound these variables. All studies of capitated payment are, in fact, also studies of other factors in the organization of care.

WHAT THE DATA SHOW

In general, the literature in this area,⁵ including large studies of Medicaid and Medicare patients in managed-care systems in the 1980s,^{6,7} consistently shows that costs are lower in managed-care systems, with quality equal to or better than that in fee-for-service care. In studies of care and outcomes among the elderly, managed-care systems do not differ from fee-for-service systems with respect to the rate of functional decline among elderly enrollees,^{8,9} numbers of outpatient visits to providers per year,¹⁰ or one-year outcomes of patients with congestive heart failure.¹¹ Elderly HMO enrollees with acute myocardial infarction received better in-hospital care than fee-for-service patients in one study.¹² In other comparisons, processes and outcomes in managed-care systems have been the same as or better than those in fee-for-service systems for patients with newly diagnosed colorectal cancer,¹³ diabetes,¹⁴ urinary tract infection,¹⁵ pelvic inflammatory disease,¹⁵ and vaginitis¹⁵; findings were similar for pregnancy outcomes,¹⁶ blood-pressure control,¹⁴ and care for patients with chronic mental illness.¹⁷

Numerous studies suggest that resource use is lower for HMO enrollees,¹⁸ even when the same doctors care for HMO and fee-for-service patients; few studies suggest, however, that these decreases have been imprudent or have caused the health status of patients to worsen.^{19,20} Several strong studies suggest that preventive services, such as immunization²¹ and screening tests,⁷ have been delivered more reliably in managed-care organizations than in fee-for-service systems. The strongest negative finding to date about the performance of HMOs has been the observation in the Medical Outcomes Study that fee-for-service patients were more satisfied than HMO patients with their visits to physicians' offices.²² This difference may reflect the organization of care as much as the payment mechanism; patients in small, single-specialty practices were more satisfied than others, even when the physicians or groups were paid under capitated arrangements.

These empirical studies of managed care are reassuring, but they have some serious limitations. First, as mentioned above, such research rarely studies (indeed, it cannot study) capitation as a free-standing variable. Second, the majority of studies are already several years old, and in the current environment of growing competition and rapid organizational change, such research can become irrelevant very quickly. Third, most studies have evaluated relatively

short-term outcomes, assessing results after only one or two years, even for chronic illnesses like diabetes and hypertension. Finally, many studies of managed care may be biased by self-selection on the part of patients.

What can be said with certainty is that the empirical literature as a whole so far does not make capitation out to be the villain that some believe it is. Dire predictions are common, but they are based more on theoretical issues than on systematic data.²³⁻²⁵ If anything, the data suggest hazards and ethical problems in the overuse of services in fee-for-service settings,^{26,27} rather than its underuse in capitated care.

Those who worry about capitation may nonetheless have a point. The jury is still out on capitation, and prudence requires vigilance as the system extends financial risk ever downward toward the point of service to the patient. In the absence of definitive or recent research, one must turn to theory to explore the issues further.

THEORIES ABOUT THE EFFECTS OF CAPITATION

In theory, capitation might affect the quality of care in two basic ways: by influencing individual decisions, especially on the part of physicians, and by encouraging systemic integration and innovation in the design and delivery of services.

Both advocates and opponents of capitation reserve most of their energy for the first of these themes: the effect of capitation on the choices made by individual physicians. Decades of health services research have established that doctors vary widely in their use of diagnostic tests, drugs, therapeutic procedures, hospital admissions, and surgery. Though scores for the "appropriateness" of care do not always correlate well with rates of procedures,²⁷ many observers believe that the excessive use of unhelpful maneuvers is more common than the withholding of effective ones.

To many, this belief implies a need to make doctors think twice before ordering a test or treatment. Capitation — which can place doctors at financial risk for the costs of their own choices — is one form of such pressure. Others include utilization review, requirements for precertification, and the withholding of part of the payment, to be distributed later if overall financial performance is satisfactory.

The problem with using incentives to shape physicians' behavior is the bluntness of the method. Hillman has contrasted such incentives with what he calls "rules," such as guidelines for care, which specify clinical policies for doctors to follow.²⁸ Rules attempt to prescribe correct care; financial incentives leave that choice to the doctor. Incentives thereby create an ethical quandary for the doctor that rule-based management does not. With financial incen-

tives, patients must depend on doctors to take the correct course even when it is against their economic self-interest; rule-based management shifts that burden to the person who makes the rules.²⁹

Though there is little evidence that doctors withhold needed care, even when their income is at risk, many policy analysts and HMO managers agree that a prudent incentive structure should not link an individual doctor's financial well-being too tightly to a specific choice for a specific patient.²⁹⁻³²

A cynic might claim that analysts appear to favor capitation only under circumstances that insulate decisions about care from their financial effects. A more balanced view is that capitation most safely affects individual decisions through the intermediate filters of group process, consensus among peers, and clinical-policy formulation. In this sense, capitation should be used not as a pure alternative to rules, but rather as a way to cause "soft rules" to take shape at the practice level. The aim would be not to cause an individual doctor to consider the interactions between decision and profit in the case of a particular decision for a particular patient, but rather to induce physicians in group practices to consider the costs and benefits of clinical-management patterns for patients of a general type in the longer run.

Although the influence of capitation on doctors' decisions attracts the bulk of the analysis and controversy, a second theory — that capitation can favorably influence the design of the health care delivery system — may be both more important and more powerful for improving the quality of care. Perhaps no problem threatens the quality of health care more than does fragmented effort. Historically, health care developed in a series of separate professional and organizational categories, emphasizing functional specialization in which distinctions attracted more attention than areas of interdependence. Physicians and nurses work together but do not train together. Inpatient and outpatient services departments often maintain separate medical records. Public health medicine and acute care remain worlds apart.

The root causes of this fragmentation are many and are beyond the scope of this essay. But prominent among the causes is the system for financing care, which both mirrors and sustains the boundaries that plague American medical care. Doctors and organizations that want to reintegrate care too often find that the payment system is their biggest obstacle. We might be able to reduce the costs of care for injuries, for example, by investing in injury prevention, but the accounts, kept separately, do not permit a unified financial and clinical view. Doing the right thing for patients can even be financially self-destructive. When a hospital in Twin Falls, Idaho, led a successful community campaign to re-

duce bicycle injuries among children, it had to absorb a \$150,000 decrease in emergency room revenues.³³

Truly integrated care has enormous potential both to reduce costs and to improve outcomes. One example is the treatment of asthma. In the past decade, the ideal pattern of care for a child with asthma has changed dramatically. The modern approach places in the home devices and treatments that 10 years ago were available only in an emergency room. A well-prepared parent of a child with asthma today can perform simple pulmonary-function tests, administer therapy with a nebulizer, and adjust types and doses of medication — all without leaving home, and with better outcomes. A recent controlled trial in Finland showed dramatically improved functional status and decreased use of health care services with such a comprehensive self-care program.³⁴

In a fragmented cottage industry with fragmented reimbursement, it is difficult to establish this new, modern pattern of asthma care. The doctor may be paid for visits, the pharmacist for filling prescriptions, and the hospital for emergency room services. But who is paid to teach the mother how to measure peak expiratory flow at home, or to visit the house to look for offending allergens, or to deliver and set up the nebulizer machine, with appropriate training?

Even more problematic, who does the initial work of designing the new pattern of care, of crafting sound contracts with the company that supplies the home nebulizer, or of developing efficient programs for training patients in self-care? Managing asthma the new and better way requires a shift in thinking from selling separate services to designing and managing a system of integrated care.

Aggregating payment for all the care of a defined population makes integration and innovation much easier. It permits the transfer of resources among the providers of care, so that the costs of an innovation like home outreach for patients with asthma can be offset by the gains in reduced visits or hospital use. Properly designed, capitation can broaden time horizons, clarify areas of interdependence, and encourage cooperation, all of which can improve the quality of care.

In order for capitation to be a force for the redesign of care processes, however, the entity paid by capitation — the one that stands to gain from innovation — must be capable of achieving such redesign. It would not be helpful to provide capitated payment to too small an entity (such as an individual physician), which, lacking the leverage or capability to change the system, has little choice but to spend less within the current system. Few doctors working alone could patch together all the elements of a thoroughly modern program of asthma care. At the other extreme, it would be a mistake to apply capi-

tation to too large an entity, because on a sufficiently large scale performance becomes too loosely connected to rewards, and making changes becomes too difficult and bureaucratic.

HOW TO SUPPORT THE IMPROVEMENT OF QUALITY THROUGH CAPITATION

I suggest a few principles that may increase the probability that capitated payment will contribute to the well-being of patients while helping to reduce costs safely.

First, the risk pools in capitated arrangements should be larger than individual physicians' practices. For most health care, an individual doctor's practice is too small an arena for change. The risks of withholding needed care from an individual patient, like the risks of providing excessive care, are highest when financial benefit depends directly and immediately on a particular choice by a single physician. Placing groups of doctors at risk for the costs of care to panels of patients makes more sense.

Second, the magnitude of risk under capitation should not be so great as to influence an individual physician to make clinically imprudent choices for an individual patient. Rather, we should seek to understand better which forms of risk contracting have the effect of increasing the frequency with which groups of clinicians raise and discuss issues of general clinical policy for classes of patients. The primary aims of any capitated contract directly involving physicians should be to encourage peers to exchange information about their own patterns of care, to support group learning about parsimonious, clinically prudent options, and to increase the likelihood of cooperation among clinicians and between clinicians and managers to develop better programs of care.

Third, the services covered under capitated contracts should be those about which the risk-bearing entity can make relevant, clinically prudent choices, not those over which the entity has little or no influence. When deciding whether to include a service under a contract, one should ask, "Can the bearer of the risk redesign the pattern of care so as to improve cost savings and quality?" If not, the service does not belong among those for which risk is assumed. The appropriate level at which services should be grouped will vary with the opportunity for improvement. A group of three obstetricians can probably safely reduce the rate of cesarean section among their patients if they try, but they could do very little to redesign school outreach programs to prevent teenage pregnancy.

Fourth, capitated arrangements should encourage cooperation among providers of care (including separate organizations) that, by working better together, can achieve improvements. Risk contracting should cross existing institutional boundaries and should not require formal institutional mergers and

acquisitions as a prerequisite to integrated effort. Partnerships are often cheaper and more flexible, and capitation-based contracting should therefore encourage innovative, nonstructural partnerships. Such an arrangement, for example, should be able to keep a hospital from suffering financial harm when injury rates are reduced.

LINKING CAPITATION AND THE CAPACITY FOR IMPROVEMENT

Capitation is growing in health care at a time of great and legitimate concern over threatened values and short-sighted cost reductions. It has been tarred unfairly by that association.

On the one hand, capitation alone is only a weak instrument for improvement in the quality of care. It cannot make such improvements certain. The effects of capitation on quality and total cost depend very strongly on the system of care in which it is used and on the competence and willingness of doctors and delivery systems to improve their own work. People and organizations that are incapable of improvement, or that have no intention of changing, will respond to tightening financial risk with fear and hostility.

On the other hand, capitation can encourage better decisions and facilitate the productive redesign of systems for the delivery of care. Those who truly desire to improve will recognize that, in the right organizational environment and guided by the right values, capitated payment can provide a rational financial context that vastly increases the opportunities for doctors and system managers to make changes that result in better and more efficient care for patients and communities.

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