8
Alternative Approaches to Changing Incentives for Medical Technology Adoption and Use

When society requires to be rebuilt, there is no use in attempting to rebuild it on the old plan.

—John Stuart Mill

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8. Alternative Approaches to Changing Incentives for Medical Technology Adoption and Use

INTRODUCTION

The strategies in previous chapters have focused on changes in Medicare payment methods—changes in coverage policy for individual technologies and changes in hospital and physician payment. This chapter explores policy mechanisms other than payment that could be instituted by Medicare in order to foster the appropriate adoption and use of medical technologies and ultimately save costs. Such mechanisms include changes that must involve the general health care system but that Medicare could encourage or embrace and changes in the structure of the Medicare program itself. For discussion in this chapter, the mechanisms are divided into two broad categories: 1) methods to foster competitive behavior by providers, and 2) administrative changes in Medicare.

It is generally believed that costs to the Medicare program and to the health care system in general can be contained by the rational adoption and use of medical technologies, which includes using them in appropriate settings. An important method of stimulating the rational adoption and use of technology is to foster competitive behavior by health care providers. In most cases, it is through policies encouraging the use of the alternative sites and organizations for health care delivery that competitive behavior is expected to occur.

This chapter presents an overview of some of the most prominent mechanisms to increase competitive behavior by providers. Alternatives to traditional fee-for-service, solo physician office practices and traditional inpatient hospital care include site alternatives such as freestanding ambulatory surgery centers, emergency care centers, hospices, hospital outpatient departments, home health care, and nursing homes. They also include organizational alternatives such as health maintenance organizations (HMOs), the use of primary care gatekeepers, and preferred provider organizations (PPOs). Organizational and site alternatives are not precisely distinct entities, but they are separated here for the purpose of discussion. This chapter defines several alternatives, discusses available evidence on their cost and quality of care, and discusses Medicare's past experience or possible future involvement with them. The chapter does not provide an exhaustive list of alternatives. More descriptive information on the selected alternatives is presented in appendix D.

Alternatives to traditional modes and sites of care have been initiated and developed in response to a variety of factors. In many instances, such as the development of freestanding ambulatory surgery centers and HMOs, factors for change have included technological advances, perceived patient need, and potential financial reward for the entrepreneurs, Changes in the health care delivery system have been influenced by, and had an effect on, the development and use of technologies. As noted in chapter 2, some changes in technology and in the health care delivery system have also been influenced by Medicare. It is the optimal blend of Medicare's adoption of pre-established health care system innovations and of Medicare's fostering innovations with which much of the discussion in this chapter is concerned.

Changes in the structure of the Medicare program itself are also examined in this chapter. These changes (vouchers, in particular) overlap with mechanisms to increase competition among providers but are presented separately for ease of discussion.

MECHANISMS TO FOSTER COMPETITIVE BEHAVIOR BY PROVIDERS

In an October 1982 report (355), OTA noted that strategies to increase competition in health care generally fall into three major categories: 1) increased cost-sharing by patients when they use medical care; 2) greater competition among comprehensive care organizations (i. e., organizations that provide health insurance and deliver medical **care);** and 3) increased antitrust activities by the Federal Government, The first strategy, increasing cost-sharing when patients use medical care, relies on the cost consciousness of patients to deter their initiation of care and to temper their own use of technologies as well as use generated by providers (355). Beneficiary cost-sharing proposals were discussed in chapters ***6*** and 7. The focus here is on the development of alternatives to traditional organizations and sites of health care delivery. Antitrust activities are excluded, because they are beyond the scope of this report.

Proponents of greater competition in health care believe that the changes they propose have the best chance of moderating medical care use and costs in the near future. Proponents of competition among health care plans emphasize the importance of creating incentives for providers to perform efficiently. They point to the largely untapped potential to use medical technologies more judiciously and to hospitalize less frequently, and would rely on alternative delivery systems to rationalize technology use and to achieve lower medical expenditures **(355).**

Under competition thec}ry, providers' behavior is expected to change as patients become more conscious of cost in deciding whether or not to use services and shop for services on the basis of cost and quality. Physicians are expected to continue to guide patients as they do under traditional fee-for-service payment incentives, but their advice is expected to reflect to a greater extent concerns about the effect on their patients' finances. And hospital administrators are expected to become more conscious of costs in the management of their institutions (116).

Because "the sick or worried patient is in a poor position to make an economic analysis of treatment alternatives" (102), some proponents of competition conclude that the appropriate point for a rational economic choice is the annual selection of a health insurance plan, Attempts to increase competition among comprehensive care organizations, therefore, would place the critical choices by consumers at the point of insurance coverage rather than at the point of use of services.

Physicians strongly influence the adoption and use of medical technologies. For example, they may purchase sophisticated diagnostic equipment for their office use, or they may persuade hospital administrators and boards of trustees to purchase it. In their decisions, hospital administrators or boards may consider the importance of individual physicians in admitting patients and the various specialties competing for the technologies, as well as the cost of the new equipment and its benefits to patients. They may also consider the extent to which the physicians use the technologies already available.

To increase competitive behavior by providers, Medicare could be used to encourage further development of alternative delivery methods. Alternatively, Medicare could be restructured to embrace alternative methods of delivery (instead of providing exceptions for demonstration and evaluation of alternative methods), with the expectation that the health system already has the capacity to provide the preferred modes of delivery. Conclusions as to which is the preferred approach will depend on the answers to two closely related questions: 1) what is Medicare's leverage in promoting or requiring that alternative delivery methods be substantially available? and 2) what is the capacity of the health care system to provide these alternatives? Their answers will affect both the substance and pace of change in moving Medicare to a competitive system of insurance.

Alternative Sites of Health Care Delivery

Patients can obtain different types of medical care in a variety of locations. Examples of alternatives to inpatient hospital settings are ambula-

tory **surgery centers,** home health care, nursing homes, and hospices. Examples of alternatives to physicians' offices for the delivery of primary care are hospital outpatient centers and emergency care centers. Each of these alternative sites is discussed further below.

Ambulatory Surgery Centers

Units to accommodate ambulatory surgery were developed in the early ***1970's*** in response to overcrowded operating room schedules and inconvenience to patients and physicians (125). These units could not have been established without the technological improvement of fast-acting anesthesia and the development of the practice of encouraging patients to walk soon after surgery ***(125).*** Some of the units are affiliated with hospitals and are located either in the hospitals or at other sites. Others are not associated with hospitals and are known as freestanding ambulatory surgery centers. The latter are often physician-owned. Surgical procedures that are appropriate to these centers are procedures using general anesthesia but requiring only a few hours of postoperative monitoring of the patient. Patients are carefully screened. In recent years, third-party payers have accepted claims for surgery performed in these centers, and some now require that certain procedures be done on an ambulatory basis for coverage.

In 1982, Medicare began to pay 100 percent of a fixed fee for the facility and a surgeon's fee (if the physician accepts assignment) for 100 specific surgical procedures if they were performed in freestanding ambulatory surgery centers ***(108).*** Historically, Medicare had paid 100 percent of costs (after the deductible and copayments) for inpatient, hospital-based tests and procedures including surgery through Part A but only ***80*** percent of an allowable charge for outpatient technologies through Part B. The 1982 change represented an overt attempt by Congress to encourage Medicare patients and their physicians to use the less costly ambulatory surgery centers when the quality of care they provided was at least as good as, if not better than, that provided in a hospital inpatient setting, The effect the Medicare coverage change has had on the use of inpatient or ambulatory surgery in the first year is thought to be minimal ***(177).***

Medicare's prospective hospital payment system based on Diagnosis Related Groups (DRGs) provides conflicting incentives for the use of ambulatory surgery. On the one hand, the first criterion for categorizing patients into DRGs is the presence or absence of a surgical procedure, and the strongest financial incentive of DRG payment is to increase hospital admissions. On the other hand, hospitals may try to shift some of their patient care to their own outpatient departments, including ambulatory surgery departments, where the DRG system is not in effect.

Home Health Care

Another care setting to which Medicare patients may be discharged from hospitals is their homes, where home health agencies can provide care. The specific aspects of home health care have changed over time. Currently, the basic services include part-time or intermittent nursing care by or under the supervision of a registered nurse; physical, occupational, or speech therapy; medical social services; and part-time or intermittent services from a home health aide. Certain medical technologies (e.g., intravenous antibiotic therapy) that used to be administered only on an inpatient basis are now part of home health care ***(248).*** Home health services are usually provided by independent public or private home health agencies but can also be provided as an outreach service by hospitals.

Continued growth in the home health industry is expected in response to the financial incentives for shorter hospital stays provided by the DRG payment system. The number of agencies providing home health care services has greatly increased since 1966 when Medicare began covering skilled nursing care and physical and speech therapy to homebound elderly people ***(207).*** The purposes of providing those services was to lower the hospital length of stay for acutely ill patients, thus cutting costs to the program.

Studies of home health care in the ***1970's*** seemed to indicate that home care made early discharges from hospitals possible. Recent studies have examined overall nursing home and hospital use and

found no reductions in length of hospital stay, although patient satisfaction and life expectancy were improved. These studies did not address readmission rates or length of stay (333). Thus, the long-term effect of the early discharges on the substitution of home care for hospital care is not evident.

Nursing Homes

The Health Care Financing Administration (HCFA) has categorized nursing homes as either skilled nursing facilities (SNFs) or intermediate care facilities (ICFs). More types of medical technologies for treating inpatients and more intensive levels of care are available in an SNF than in ICFs. Medicare covers 100 days of care in an SNF following an acute episode of illness, but it does not cover care in ICFS.

Not all SNFs accept Medicare patients and payment. This is partly because of some financial risk posed by the possibility that Medicare intermediaries (contractors who administer Part A) may deny payment and partly because Medicare patients may require more intensive nursing care and more use of medical technologies than other SNF patients (106). There are shortages of SNF beds for Medicare patients in parts of the country (106).

As an alternative to inpatient hospital care, care in SNFs is less costly. The intensity of care differs between hospitals and SNFs, so their patient populations also differ. SNF patients have usually spent time in a hospital before being admitted to a nursing home. Under the old cost-based hospital reimbursement system, Medicare paid as much as four times the necessary cost of care for patients waiting in hospitals for SNF beds (106). Under the DRG payment system, if a patient remains in the hospital because SNF-level care is unavailable, the days are counted just like other inpatient days, If the length of stay exceeds the DRG average by a specified amount, Medicare will pay the hospitals a per diem outlier rate. In part because DRG payment provides incentives for hospitals to discharge patients to SNFs, Medicare costs for SNF-level patients in hospitals may decrease. Discharges of sicker patients to SNFS could affect the need for more technologies in the SNFS, It could also increase Medicare's costs for SNFS, which may offset the Medicare hospital savings.

Hospices

Hospice care has been available to terminally ill patients in this country since 1971. Treatment consists of palliation of the patient's symptoms and psychosocial care from a multidisciplinary team of physicians, nurses, social workers, clergy, psychiatrists and psychologists, dietitians, lawyers, and specially trained volunteers. By allowing most patients to remain in their homes rather than the hospital, hospice care saves costs. It also is more pleasant for the patients.

Hospice care is a recently enacted Medicare benefit. Legislation to cover hospice care was passed in 1982, while the National Hospice Study, which was to assess the costs and quality of care in a national sample of existing hospices, was still in process. At the time of the benefit addition, preliminary results seemed to show that hospice care would be cost effective for Medicare. The incentives for hospitals to encourage their patients to use their hospice benefits depend on whether the hospital runs its own hospice and on whether the patient might be an outlier case for whom the hospital might be paid some additional, marginal costs. The effects of the new benefit for hospice care on the quality of life for terminally ill patients are unknown. Also unknown are the costs of the benefit to Medicare and to the beneficiaries. Technology use in hospice care, whether home or hospital based, was significantly lower than use in conventional treatment of terminal cancer patients in the National Hospice Study, while quality of life seemed to be about the same in the different sites ***(146).***

Hospital Outpatient Departments

Outpatient departments of hospitals maybe an alternative site to both inpatient hospital care and private physician office-based care. Many hospitals, particularly teaching hospitals, have long had outpatient services, including primary care. Furthermore, in recent years, one of the ways hospitals have responded to financial pressures has been to expand hospital services, including primary care in outpatient departments (136). Other

reasons for the increased use of hospital ambulatory care are low access to private physicians, particularly for some inner-city residents (2), increasing prevalence of chronic diseases (2), greater patient expectations regarding hospitals (2), and advances in medical technology that have allowed movement from inpatient to outpatient settings (136, 157,248).

Under Medicare's current payment system, hospital outpatient departments receive payments through Part B, based on the hospital's costs. Because hospital overhead costs are high, Medicare payments for outpatient department visits are usually higher than physician office charges. However, unlike physicians, hospitals must accept assignment to participate in Medicare, so Medicare beneficiaries' costs for outpatient visits may be *lower* than those for physician office visits. Costs to Medicare are generally higher for outpatient department care than for office care. There is evidence that increasing numbers of patients 65 and older are using outpatient visits for primary care (210).

Emergency Care Centers

Emergency care centers are alternatives to hospital outpatient departments, to some emergency room care, and to primary care in physician offices. Such centers are generally equipped with some emergency technologies but do not treat life- *or* limb-threatening situations, so the name "emergency" may be misleading ***(325),*** They usually have more diagnostic technologies on location than a physician's office. Emergency care specialists and some family practitioners have opened emergency care centers to make medical care more accessible to patients who have no primary care physician or who cannot find a physician after hours. The centers have extended hours during evenings and weekends when physicians' offices are closed, and some are open 24 hours a day, 7 days a week. No appointments are necessary, so care is more convenient for some patients, although patients may not experience desired continuity of care.

Emergency care centers usually compare their charges with those of hospital emergency rooms rather than with fees for physician office visits. This comparison is not necessarily a good one, because the care provided is often more like office than hospital care. Nonetheless, the National Association of Freestanding Emergency Centers estimates that center charges are ***30*** to ***50*** percent lower than hospital emergency rooms for comparable services ***(238).***

If an emergency care center is hospital-affiliated, Medicare will reimburse for visits as though the center were a hospital department. If the center is totally independent, Medicare will pay as though the visit were a physician office visit (55). As noted earlier, hospitals must accept assignment to participate in Medicare, but physicians need not. Thus, if elderly patients were informed about which centers were hospital-affiliated (and thus accepted assignment), they would be more likely to choose them over the independent ones if total prices were comparable. A ***1979*** study showed that most of the emergency care centers' revenues came from private insurers or patients who paid directly, with only a small fraction coming from Medicaid and even less from Medicare beneficiaries ***(55).*** The ***1983*** followup, although limited in sample size, showed more centers accepting Medicare funds but some centers specifically excluding Medicare cases **(248).**

Alternative Organizations for Health Care Delivery

Organizational differences among providers allow patients choices and increase competition in the health care market. Two examples of alternatives are described below, HMOs and PPOs. Also, primary care gatekeepers are discussed.

Health Maintenance Organizations

An HMO is a defined set of physicians and other health care providers who provide services for a voluntarily enrolled population that pays a prospective per capita amount. HMOs provide both insurance benefits and comprehensive but specified medical care, and are often cited as the cost-effective mode on which competitive care could be built.

In a series of laws, the Federal Government has encouraged the development of HMOs in the be-

lief that health care costs will be contained by this organizational type. Even with the special governmental treatment, however, HMOs cover only about 5 percent of the U.S. population **(392). HMOs cover an even smaller proportion of Medicare beneficiaries: approximately 2 percent of the Medicare population is enrolled in an HMO-like organization (392). The evidence on why so few Medicare beneficiaries are HMO members is inconclusive, but some possible reasons include a lack of interest in or knowledge about HMOs on the part of the Medicare population and a lack of interest in enrolling an older, sicker group of people on the part of HMOs. Another reason may be that beneficiaries** need incentives to join HMOs, because they would probably have to change physicians and hospitals. Finally, another consideration is that HNfOs operate on a per capita payment basis, and as long as Medicare required cost-based data, the HMOs incurred significant administrative costs.

The cost effectiveness of HMOs has been thoroughly studied. The empirical evidence on costs and quality of care for HMOs verifies the predicted behavior: patients are not constrained from seeking necessary care, and, at the same time, physicians are constrained from using unnecessary medical technologies, including tests, procedures, and hospitalizations ***(206).*** HMO physicians are usually salaried, and because they often share in the HMO's surplus revenues, they have financial reasons to keep general costs and, specifically, the number of office visits low. HMOs provide incentives to providers to use fewer laboratory and radiological tests on an ambulatory basis. HMO physicians hospitalize patients less frequently than non-HMO physicians ***(204).*** Office visits that have doubtful cost effectiveness, such as annual physical examinations for healthy individuals, might be discouraged by HMO physicians, but in many cases, patients initiate such visits themselves. Studies have shown that although HMOs use fewer medical technologies, they do provide care that is at least as good quality as fee-for-service care, and their costs are 1ower ***(204,206,429).***

Primary Care Gatekeepers

One of the methods HMOs use to save costs is to have each patient choose a primary care provider who acts as a gatekeeper to specialists and other types of care (316). These primary care gatekeepers not only have the responsibility for referring patients to others, but they also coordinate all facets of a patient's medical care. The gatekeeper's coordinator role is especially important for elderly patients, who often have multiple diseases and must take a variety of drugs that may interact dangerously.

The gatekeeper is neither a new concept nor confined to a particular payment method (316). The "traditional" family physician who took care of most medical problems and referred patients to specialists when necessary was an informal gatekeeper. Several years ago, the SAFECO Insurance Co. experimented with a primary care network in Seattle that used physicians as gatekeepers. The experiment showed that the gatekeepers must have financial risks for referring too many patients to specialists, or there are no cost savings to the insurers ***(277).*** Great Britain's National Health Service uses general practitioners as gatekeepers. Their effectiveness is questionable, however, because there is a growing private medical care sector for people who do not want to wait for specialists' care and can afford to pay for it privately.

The evidence on technology use by physicians as gatekeepers comes from the literature on HMOs and Great Britain's National Health Service. Physicians in HMOs hospitalize patients less often and use fewer medical technologies in their roles as gatekeepers ***(204).*** Evidence of constraints on technology use in Great Britain include long waiting periods for elective surgery and an age cutoff for new hemodialysis patients (316). The evidence from Great Britain must be viewed with caution, because there are substantial differences between the health system of Great Britain and that of the United States.

Clearly, the gatekeeper performs a rationing function. How this rationing of health care serv-

ices would be interpreted *in* light of the freedom of choice enjoyed by Americans in the health care system is unknown. Could the concept be introduced in the Medicare program, thereby limiting choice for elderly and disabled patients only? A demonstration project of case management (i.e., gatekeeper) for Medicaid patients in Massachusetts was ready for implementation but was canceled by the new governor for political reasons. Patient groups could be appropriate targets for experiments with gatekeeper approaches, but such special treatment might result in two-class medicine.

Preferred Provider Organizations

PPOs are new entities that are designated to combine some of the features of HMOs with those of fee-for-service medicine. A PPO is an agreement among providers (usually hospitals and physicians), patients, and insurers that medical care will be delivered at a discounted price as long as the patients use the "preferred providers" (i. e., providers who are among the contractors). Discounted prices and utilization review agreements should result in the use of fewer medical technologies by PPOs. Since payment is on a fee-for-service basis in PPOs, however, providers' financial incentives to use more ancillary services may be as great as in the traditional mode of care. The effect of PPOs on the use of medical technology will depend in part on the effectiveness of the organizations' utilization review programs. The PPO concept is relatively new, and there are no reliable data on which to base predictions about how PPOs will interact with Medicare or the overall health care delivery system. Currently, Blue Cross and Blue Shield of Michigan is developing a PPO for Medicare recipients in Detroit under a grant from HCFA ***(59).***

ADMINISTRATIVE CHANGES IN MEDICARE

The alternatives addressed in this section focus on Medicare's structure. There are definite overlaps between the administrative changes discussed here and the competitive mechanisms presented above. Vouchers, for example, would encourage competition among providers ***and*** change Medicare's makeup. The separation is to facilitate discussion.

Merging Parts A and B

It is well known that separate income and payment mechanisms for Parts A and B of Medicare have led to inefficiencies. Some medical technologies have been covered under both Parts A and B, but because of differences in which part paid for their use at which time, there has been unnecessary duplication of equipment in adjacent facilities. This effect could be avoided if there were one type of coverage and one payment source. Thus, merging Part A and Part B would thwart efforts to shift costs from one part to the other and should decrease the supply of some of the excess technologies. The incentives to open a new freestanding facility for diagnostic tests across the street from a hospital equipped to do those tests would be reduced by the elimination of the cost-shifting possibility.

There is no sound fiscal reason for separating Part A—the Hospital Insurance (HI) program—from Part B—the Supplementary Medical Insurance (SMI) program—which covers physician services. There is also no sound health reason for the separation. Merging the two parts could alleviate the financial problems of the Medicare program and improve quality of care for patients.

Davis and Rowland ***(84)*** have proposed that a comprehensive, integrated set of benefits be substituted for those under Parts A and B and be paid from a single trust fund formed from the HI and SMI funds. Everyone eligible for Part A would be covered; no benefits would be optional. According to Davis and Rowland, their suggestions for Medicare revenues would guarantee the future solvency of the Medicare program and the availability of medical care for its beneficiaries. Revenues would come from: 1) the current payroll tax contributions to the HI trust fund; 2) general revenues currently projected for SMI expendi-

tures; and 3) new beneficiary premiums that would be related to income and administered through the personal income tax system. The proposal assumes that cost-containment efforts and incentives for providers to improve efficiency would continue.

The merger proposed by Davis and Rowland focuses on financial solvency through revenue reforms for Medicare, but such a merger would also provide incentives for new organizational innovations fostering competitive behavior among providers. Medical technology adoption and use would be more directly affected by the efforts following the merger to increase provider efficiency than by the actual merger described. It might be possible, for example, to initiate a gatekeeper approach that would penalize the primary physician for inappropriate hospital admissions, thus putting the onus on the decisionmaker. The merged Medicare program would be better able to administer such a system than the current separate data systems.

Vouchers

Vouchers are seen by some policymakers and analysts as an important alternative to change Medicare and contain costs. A voucher system would allow each eligible person a set amount of money with which to purchase medical care and/or health insurance. In some voucher systems, people who did not spend their entire amount would be able to keep the remainder, Under most systems, though, more benefits would be added to basic coverage to spend up to or over the voucher amount. Any costs of insurance benefits over the voucher amount would be paid by the patient.

Medicare vouchers have been proposed in Congress several times as a cavitation payment method. A Medicare voucher system is attractive for a number of reasons. First, a fixed-dollar subsidy is a cavitation method of payment, which would make it easier for HCFA to predetermine and control the program's expenditures. Second, a voucher system could substitute for or complement the service-by-service (e. g., ambulatory surgical centers, hospices) and provider-by-provider (e.g., HMOs, PPOs) revisions in current Medicare policy that attempt to fine tune the program in its search for cost-effective alternatives to traditional methods of delivering medical services. Third, such a system would provide Medicare enrollees with a greater choice of insurance plans, in contrast to the present single Medicare program with its increasing amount of cost-sharing and perhaps decreasing access to physicians of the enrollee's choice. And fourth, Medicare's enrollees' ability to enter the general marketplace for medical services could lead to significant competition for their care and accelerate the development of cost-effective methods of providing medical care.

The entry of Medicare enrollees into the medical marketplace through a voucher system raises three questions. First, will a voucher system generate cost savings to Medicare? Second, at what pace and to what extent should the Medicare program be integrated into general health insurance plans? And third, to what extent could Medicare patients adapt to such a new system?

The answers to the latter two questions are primarily philosophical. Cost savings to Medicare will depend on the voucher's initial value and future increases in value. Currently, Medicare pays for hospital and physician services at lower rates than the private sector does. If the value of the voucher is set at average per capita expenditures per Medicare enrollee, insurers that enroll Medicare beneficiaries may have to reduce benefits or raise premiums to cover their actual costs. Insurers also incur costs that Medicare does not, such as advertising, reserve requirements, premium taxes, as well as profits, all of which would have to be built into the premiums.

Voucher proposals link future increases in the voucher's value to indexes that have increased at lesser rates than medical costs, such as the Consumer Price Index, If medical costs continue to increase at a faster rate, premiums would have to be raised above the voucher's value or benefits would have to be curtailed (336). Thus, in order for Medicare enrollees to have the same level of benefits as under the current Medicare insurance program, initial expenditures would have to increase, and if medical costs continue to outpace general inflation, future costs would be comparable to increases in costs under the present program. If the initial value of vouchers is kept at

the level of current expenditures, and if future values increase less than medical costs increase, average benefits would be less *or* the voucher would not be sufficient to cover premiums for most beneficiaries.

Most legislative proposals to date would allow voluntary participation in a voucher system, although some of the proposals would allow beneficiaries to reenroll in Medicare and others would make the decision to participate permanent. A voluntary system could initially increase per capita Medicare costs if low-cost users selected private plans while high-cost users chose the traditional Medicare option. If benefits for the low-cost users decreased in their plans, they would choose to go back to Medicare's regular benefits. One of the alternatives is a mandatory voucher system if and when more than half of the beneficiaries choose vouchers ***(336).*** Under a mandatory voucher system, which would replace the present Medicare program and in which Medicare beneficiaries would be required to purchase insurance from the marketplace, Medicare program expenditures could be kept the same as current expenditures. Beneficiaries, however, might have to pay more premiums or have their benefits reduced. None of the legislative proposals to date have included mandatory vouchers, though the conditions vary.

Voucher problems for both insurance companies and Medicare beneficiaries deserve consideration. Individual policies would have high administrative costs, and many insurers have indicated they would not sell to the Medicare market (156). Many of Medicare's elderly and disabled beneficiaries may not understand the differences in insurance policies and may be excluded or disadvantaged by policy exclusions and preexisting condition costs. Furthermore, beneficiaries' mobility problems may hamper comparison shopping for the best deal.

Technology incentives would depend on the method of payment from the insurance companies to the physicians. If physicians accepted capitation payments for Medicare patients, they would have financial incentives to use the fewest possible and least costly medical technologies while still providing good quality care. If they continued to be paid on a fee-for-service basis, their financial incentives would remain much as they are now. It is unlikely that insurance companies would choose the latter path.

The choice between mandatory and voluntary voucher systems raises several issues. A voluntary voucher system would present Medicare beneficiaries with the choice of joining other insurance plans on a test basis to see if there would be more cost-effective services available to them than under the present Medicare system. A mandatory voucher system would take advantage of the market power of Medicare enrollees as incentives for providers to develop more cost-effective approaches, but would place beneficiaries at greater risk for increased cost-sharing and reduced benefits if providers failed *or were* slow to respond. A voucher system might also weaken the influence of Medicare as a large payer for hospital cost control.

DISCUSSION

Medicare has fostered certain patterns of care because of its payment policies and program structure. The program has influenced how much and where specific medical technologies are provided. For the most part, Medicare has fostered inpatient hospital care and adoption and use of technologies. The End-Stage Renal Disease (ESRD) program (see ch. 2) also illustrates the influence of Medicare with the growth of the dialysis center industry. It is doubtful whether, without Medicare coverage, the market would have stimulated the research and development for some ESRD technologies such as continuous ambulatory peritoneal dialysis. Provided that the alternative sites and modes of care are truly believed to have a beneficial impact on costs and on technology adoption and use, can Medicare stimulate their development?

The Medicare program has not been used to its full extent to encourage or discourage alternative sites and organizations of care, in part because of the original political agreement that the Federal Government would not use Medicare and Medicaid to interfere in the practice of medicine. Despite the noninterference policy, however, Medicare was certainly intended to influence, and in fact has influenced, the practice of medicine through the conditions of participation and other quality of care standards provided by the Professional Standards Review Organizations (see ch. 7). The key is that Medicare has influenced medicine in a politically acceptable manner, because it has traditionally included the medical profession in its decisions. The separation of Medicare payment for inpatient hospital care (Part A) and for physicians and other types of care (Part B) has had an effect, though not purposeful, on the changes in medicine.

As a large single buyer of hospital inpatient care, Medicare has always had a significant impact on the availability and use of hospital-based technology. The DRG hospital payment system is explicitly designed to provide incentives for more efficient provision of care, and because of Medicare's size, changes in hospital behavior are predicted to be realized, The actual effects of DRG payment on the adoption and use of medical technologies by the hospital industry and alternative sites and organizations of care will provide policymakers with necessary information for future change.

Medicare's leverage for initiating changes in alternative sites or organizations of care is not as great as it is for initiating changes in hospitals. If Medicare used its purchasing power prudently, competition and alternative delivery systems could be either fostered or hindered. It would probably be more appropriate for Medicare policies to be neutral for sites and organizations of care until the evidence on cost effectiveness is more conclusive. For example, the removal of freedom of choice of providers from one segment of the population by requiring case management of Medicare patients may raise ethical questions. Would a voucher system increase freedom of choice of benefits, and would the insurance industry participate in such a program? Whether it is reasonable to expect Medicare to pay for the most expensive, optimal level of health care or to pay less for an adequate level of care is also at issue. If Medicare chooses the latter route, a possible result would be a system of two-class medicine.

More targeted Medicare program changes to stimulate the use of alternative cost-effective modes of care may add to Medicare's costs in the short run, until these alternative modes are more firmly established in the health care system. HCFA's efforts to stimulate the use of cost-effective modes of care are reflected in recent changes in the ESRD program (see ch. **2) and in Medicare demonstrations on risk-contracting for HMOs (see app. D).**

In the ESRD program, the imposition of composite reimbursement rates to stimulate home dialysis care makes Medicare payment rates for home dialysis higher than the actual costs. Home dialysis costs may rise because of the need for home health aides for patients with little family support. If costs do not rise significantly and the use of home dialysis does increase greatly, Medicare will be paying at a rate much above costs. Whether there will be a savings to the ESRD program with the redistribution of dialysis patients between home and center dialysis is not clear. Also not clear is whether the large difference between costs and payment levels (estimated at nearly **50 percent (344) will continue to be justified.**

HCFA's HMO risk-contracting demonstration programs involve the same issue—paying more initially to establish alternative sites or modes of care, yet leaving unresolved for future consideration how these alternative modalities can be sustained at payment levels lower than originally needed to stimulate their participation in Medicare. Payments in HCFA's risk-contract demonstrations were set at 95 percent of average adjusted per capita costs of providing fee-for-service care to these enrollees in the HMO's service area. Thus, payments in these demonstrations were set above the HMO's cost levels, with the extra payment to be used to induce Medicare beneficiaries to enroll through extra benefits or decreased premiums (97). Again, left for future consideration is the payment level to HMOs if and when they

gain a significant share of the medical market for Medicare enrollees.

If the DRG payment system continues to be the only change in Medicare, what effects are predicted for the rest of the system? Care in SNFs, ICFs, hospices, and in the home will probably increase in response to the financial incentives to shorten hospital lengths of stay. In some cases, therefore, sicker patients will be treated in these alternative sites. To the extent that the alternative sites have the facilities and staff to give appropriate care, such treatment might not lower the quality of care. If the patients are so much sicker that their treatment in alternative sites necessitates the hiring of new staff or the purchase and *use* of new technologies, however, the cost of care in the alternative sites will increase. In addition, the current DRG prices reflect average lengths of stay in hospitals. If patients move to other sites for the final convalescent days of care and the DRG prices do not reflect the change, Medicare would essential] y be charged twice for the convalescent care.

Policyrnakers concerned with the Medicare program have shifted their emphasis from making mainstream medical care available to the elderly and disabled to a search for more cost-effective methods of providing care. Detailed, specific changes have been made, which still preserve the basic framework of the Medicare insurance program and its separate hospital and physician reimbursement parts. The development of alternative modes of care, and step-by-step revisions in the original Medicare legislation in order to adopt and nurture these alternatives, are gradually transforming Medicare away from a cost- and charge-based retrospective system of payment. The direction of these changes is clearly toward a total, prospectively determined system of payment and toward providers with both financial and service responsibilities.

The transition to cost-effective modes of care raises issues that can only be resolved with experience. At least for the short run, alternative methods of care may add to costs—as when home health care supplements instead of replaces hospital and nursing home care—or they may require payment levels similar to the fee-for-service system to build up their presence—as in the case of HMOs serving the elderly. In the case of vouchers, cost-containment objectives have to be balanced against the use of Medicare enrollees to test economic theory in practice and the probability that at least some of the Medicare program's cost savings will come at the expense of increased cost-sharing and or reduced benefits for Medicare enrollees.

Medicare's leverage in the health care system is variable and depends on which segment of the system is examined. If the Medicare program is to be changed, is it sufficient for Medicare to try reforms, or must the alternatives exist in the system so that Medicare can incorporate them? Alternative sites and organizations for health care delivery are currently available for experiments or revisions in the Medicare program. The extent to which these alternatives could adapt quickly and adequately to a major change in Medicare policy is being tested by DRG hospital payment.

Clearly, Medicare policies can provide small steps, as they have by the special coverage for ambulatory surgery in freestanding centers and for hospice care. Parallel developments of alternatives in the health care system outside of Medicare will continue. Policy makers should watch these system developments and modify Medicare policy to take advantage of new cost-effective modes or sites of care when available. Finally, the decision must be made for the Medicare program either to keep and strengthen its purchasin$_g$ power by continuing to cover beneficiaries in a large program or distribute its beneficiaries into the marketplace by means of a voucher system. Either of these actions has implications for technology innovation and diffusion and for cost control.

Part Three