



SOUNDING BOARD

COST SHARING IN HEALTH INSURANCE — A REEXAMINATION

CONCERN that the terms of some health insurance policies encourage overuse of medical care has led to the argument that an important element of cost containment is cost consciousness on the consumer's part. Comprehensive health care reform in the United States now appears very unlikely. Nevertheless, there is still a high degree of interest in making consumers more cost conscious.¹

Two approaches are often proposed. The first is to increase the level of cost sharing specified in insurance policies by raising copayments or coinsurance rates and to make cost sharing a part of every policy. The second is to require people to pay out of pocket the additional premiums required to purchase health insurance coverage costing more than the average or to cap the tax deduction for insurance premiums, thus discouraging the

purchase of more expensive policies. In this article, I focus on the first type of change, that involving copayments and coinsurance, and discuss only briefly financial incentives intended to discourage the purchase of insurance policies costing more than the average.

The motivation behind increased cost sharing is the assumption that strong demand for health care is a major cause of high levels of spending for health care. Proponents of greater cost sharing argue that direct charges assessed at the time services are received make people think twice before they seek medical care and can decrease the use of services and reduce expenditures. Although moving to a health maintenance organization from a fee-for-service insurance plan would probably reduce a person's out-of-pocket costs, copayments and coinsurance levels have been rising in recent years in both types of systems.²⁻⁴ The advocates of cost sharing would like to accelerate this trend. Cost sharing for elderly and disabled persons in the Medicare program is already substantial: beneficiaries pay coinsurance amounting to 20 percent for ambulatory care

visits, have no coverage for prescription drugs, and pay \$716 (in 1995) for each hospital admission, although this fee is waived if the admission takes place within 60 days after discharge from a hospital or a skilled-nursing facility. Most elderly people buy supplemental insurance policies that cover Medicare cost-sharing obligations.⁵

COST SHARING AND USE OF SERVICES

The RAND Health Insurance Experiment showed that cost sharing affects the use of health care services primarily through changes in utilization (defined as the number of outpatient visits or days in the hospital), when requirements for payments at the time of service cause people to delay or forgo health care.⁶ This effect has also been demonstrated in health maintenance organizations.⁷ However, the RAND study showed that increased cost sharing does not affect the intensity of care, defined as the number and type of services provided per year.⁸

Since increased cost sharing can reduce the growth in utilization, are further reductions a desirable goal? As compared with other major industrialized countries, the United States already has low utilization rates. In 1990, in the United States, the average annual number of contacts with physicians (an indicator of the frequency of outpatient visits) was 5.5 per person, less than in other nations (Table 1). It was less than half the rate in Germany and Japan, and slightly lower than the rate in the United Kingdom, where expenditures for health care are far less than in the United States. The problem that increased copayments and coinsurance could perhaps remedy — excessive numbers of visits to physicians — is not a serious concern in the United States.

A partial explanation for the low rate of contacts with physicians in the United States is given by the high percentage of the population that is uninsured (13.9 in 1990, rising to 16.1 in 1993) and that therefore uses health care services at a lower rate.¹¹ Even under the extreme (and incorrect) assumption that those without health insurance use no health care services at all, the utilization rate among those with health insurance would be only 6.4 visits per year, a rate still lower than in all the other countries examined except the United Kingdom.

The low rates of contacts with physicians and outpatient visits in the United States are not offset by a high rate of hospital utilization. In 1990, there was an average of 0.9 day in acute care beds per person in the United States, the same rate as in the United Kingdom, less than two thirds the rate in France and Canada, and less than half the rate in Germany. Despite shorter hospital stays and lower admission rates, U.S. hospitals appear to deliver as many services per admission as hospitals in other countries, such as Canada, if not more.^{12,13} It is noteworthy that the low rates of hospitalization in the United States are probably due in part to a relatively high rate of outpatient surgery.

Cost sharing already takes place at a high level in the United States. As a share of total national health

Table 1. Health Care Utilization and Expenditures in 1990.*

COUNTRY	CONTACTS WITH PHYSICIANS PER PERSON	ACUTE INPATIENT CARE PER PERSON	HEALTH CARE EXPENDITURES†
	no.	no. of bed days	% of GDP
United States	5.5	0.9	12.2
Canada	6.9	1.5	9.5
France	7.2‡	1.5	8.8
Germany	11.5§	2.3	8.3
Japan	12.9§	Not available	6.7
United Kingdom	5.7‡	0.9	6.2

*Data on contacts with physicians and expenditures for health care are from Schieber et al.⁹ Data on inpatient care are from Schieber et al.¹⁰

†Expenditures shown represent all spending for national health care. GDP denotes gross domestic product.

‡Data shown are for 1989.

§Data shown are for 1988.

expenditures, out-of-pocket spending for health care is equal to the level in Canada but higher than that in every other major industrialized country.¹⁰ Cost sharing for physician and inpatient services is higher in the United States than in Canada. Moreover, among people with private insurance under the age of 65 who used health care services in the United States in 1987, out-of-pocket expenditures accounted for an average of slightly more than half of all the health care services each person received (the share paid out of pocket was calculated for each person, then averaged).¹⁴ Yet even with out-of-pocket spending (and presumed cost consciousness) at the current high level, health care expenditures in the United States are the highest in the world. Other countries have less cost sharing and higher rates of utilization, but markedly lower overall expenditures.

COST SHARING AND UNNECESSARY CARE

Many studies have shown high rates of unnecessary and inappropriate care in the United States.¹⁵⁻¹⁹ Proponents of further cost sharing argue that it could help reduce these rates. However, cost sharing does not preferentially reduce unnecessary as compared with necessary care.^{20,21} Decreased utilization from cost sharing affects to a similar degree both the use of appropriate or highly effective care and that of inappropriate or rarely effective care.

COST SHARING AND PREVENTION

The RAND study showed that cost sharing reduced the use of many types of preventive services.²² For example, among women 45 to 65 years of age, cost sharing reduced the use of Pap smears from 65 percent to 52 percent over a three-year period ($P < 0.05$). Elsewhere in this issue of the *Journal*, Blustein²³ reports that after the Medicare program instituted reimbursement for mammography on January 1, 1991, women with supplemental insurance — which covered the out-of-pocket costs associated with using Medicare benefits — were substantially more likely to have had a screening mammogram than women without supplemental insurance. Among a sample of Medicare beneficiaries,

they found that 14 percent of the women lacking supplemental insurance underwent mammography, as compared with 45 percent of those with employer-sponsored supplemental insurance, 40 percent of those with self-purchased supplemental insurance, and 24 percent of those with Medicaid supplemental insurance. These differences persisted in multivariate analyses.

COST SHARING AND HEALTH OUTCOMES

Cost sharing has a negative effect on health outcomes, especially among people who are less healthy or of lower socioeconomic status. In the RAND study, among people under the age of 65 who were at risk for adverse health outcomes (a group defined as the least healthy 25 percent of those studied with respect to self-reported physiologic measures and health-related habits), free care (i.e., with no cost sharing) reduced the estimated risk of death by 10 percent, as compared with care provided through cost-sharing plans.²⁴

In the RAND study, people under the age of 65 who were among both the 40 percent with the lowest incomes and the 40 percent with the poorest health were adversely affected by cost sharing. In this subgroup, the prevalence of serious symptoms (chest pain when exercising; bleeding, other than nosebleeds or menstrual bleeding, not caused by accidents; shortness of breath with light exercise or light work; or weight loss of more than 10 pounds when not dieting) was 21 percent higher with a cost-sharing plan than with no cost sharing (29 percent vs. 24 percent, $P=0.004$).²⁵ In this low-income, relatively unhealthy subgroup, the prevalence of serious symptoms among participants with no cost sharing decreased to a level similar to that among less healthy members of a high socioeconomic group with no cost sharing. With the cost-sharing plan, the prevalence of serious symptoms in the low-income, relatively unhealthy subgroup remained 26 percent higher than the prevalence in the less healthy, high-income subgroup (29 percent vs. 23 percent, $P<0.01$).

Cost sharing inhibits access to needed care, especially among lower-income people. The RAND study showed that cost sharing reduced the percentage of nonelderly adults with low incomes (those below the 33rd percentile) who sought "highly effective care for acute conditions" by 39 percent (from 28 percent with no cost sharing to 17 percent); for adults with higher incomes, the comparable difference was 30 percent (27 percent vs. 19 percent) ($P<0.05$ for both results).²⁰ For children in low-income families, cost sharing reduced the rate with which such care was obtained by 44 percent (from 34 percent with no cost sharing to 19 percent, $P<0.05$); for children from families with higher incomes, the difference between the plans was not significant.

Income-related cost sharing has been proposed as a way to protect people with lower incomes.²⁶ Under such a plan, the level of cost sharing would need to be calculated on the basis of total income, not just wages, and would need to be adjusted with changes in income.

Such a strategy would substantially increase the administrative costs of health insurance. The main problem with this proposal, however, is that it perpetuates an unwarranted concern with limiting utilization as an important element of cost containment.

COST SHARING AND THE BEHAVIOR OF PHYSICIANS

Most examinations of cost sharing focus on the behavior of health care consumers. The effects of cost sharing on physicians and other providers have been studied less often. In most studies of effects on consumers, there were so few patients in any single medical practice that any change in the behavior of physicians would have been negligible in the overall result. Yet physicians cause increases in the demand for their services in response to fee reductions that lower their incomes.²⁷ If physicians' incomes were threatened by the decrease in utilization that accompanied increases in cost sharing, it is possible that they would attempt to increase demand among other patients who were affected less or not at all by cost sharing. Within health maintenance organizations and other capitated systems, offsetting increases in volume should not be a problem. Medicare has also addressed this issue by instituting volume-performance standards in which increases in volume above an annual target result in smaller fee increases for the physician the following year.

One of the few studies to investigate physicians' behavior examined the effect of the imposition of cost sharing by the United Mine Workers of America on its policyholders in 1977.²⁸ In a group practice in western Pennsylvania, miners, steelworkers, and their families constituted over 80 percent of the patients. The coverage for steelworkers was unchanged. Comparisons of data from one year before and two years after the institution of cost sharing revealed a significant increase in the average cost of an episode of illness for everyone in the practice, after adjustment for inflation, with the following variables held constant: age, sex, diagnosis, severity, complexity, status of a patient as new to the practice, prior use of medical care, and characteristics of the physician. For miners, the total cost per episode of illness fell by 10 percent, whereas for all others this cost rose by 17 percent. The total number of visits per episode of illness, a measure of patient-initiated utilization, was unchanged in both groups.

There were other significant changes. The average fee per ambulatory care visit, a measure of physician-initiated treatment, increased by 11 percent for nonminers and decreased by 4 percent for miners. Inpatient fees per episode of illness increased by 49 percent for nonminers and decreased by 36 percent for miners; the number of hospital days increased by 96 percent for nonminers and decreased by 23 percent for miners.

These changes reflect the immediate impact of cost sharing, an effect that may not have continued in subsequent years. Moreover, the Medicare prospective payment system, utilization review, and other cost-containment measures put in place since 1978 would limit

increases in volume and expenditures if a similar change in coverage occurred today. Nevertheless, these findings provide a warning. For cost sharing to lower total expenditures for health care, as opposed to merely shifting costs, it must be applied equally to all patients. This may be difficult to achieve in practice. Because of differences in patients' incomes and preferences for health care, the effects of any given level of cost sharing on behavior will vary. Reductions in utilization and expenditures by some patients brought about by uniform or income-related cost sharing could be offset partly or largely by physician-induced increases in intensity, utilization, or expenditures by other patients who are less affected by the cost-sharing requirements. Therefore, the net effect of increased cost sharing on expenditures is likely to be ambiguous.

COST SHARING AND SHOPPING AROUND

Proponents of increased cost sharing argue that it would encourage people to seek out the health care services that have the lowest costs. However, the 90 percent of the people in the United States who use the fewest services and are, presumably, best able to shop around are responsible for only 28 percent of all health care expenditures.²⁹ The small savings accrued from such shopping around should have little effect on overall spending for health care. Moreover, seeking out less expensive services is not an option for people in health maintenance organizations and many managed-care organizations, who must choose their physicians from a limited panel of providers, all of whom receive the same fees or capitated rates.

CAUSES OF HIGH EXPENDITURES

Comparisons with Canada, the country with the second-highest health care expenditures, give some preliminary indications of why health care spending in the United States is so high. The major factors appear to be high prices and physicians' fees,^{12,30} high administrative costs,^{31,32} less efficient delivery of services due to excess capacity and underutilization,¹² and high levels of intensity, particularly the high rate at which procedures are performed.^{13,33,34} Increases in cost sharing will have little effect on these forces. Since cost sharing has little effect on the intensity of services provided, it probably would have little effect on the demand for high-technology services and their growth and diffusion, or on the frequency with which procedures are performed. Thus, the effect of cost sharing on growth in spending would also be negligible.

Cost sharing is unlikely to affect price inflation specifically related to medical services. If current levels of use were creating demand-driven inflation (from a relative shortage of medical services), then reductions in demand should theoretically reduce inflation. The health care system in the United States, however, is generally plagued by excess capacity, not shortages. Moreover, the underutilization of expensive medical equipment may result in higher costs per service.³⁵

Where there is excess capacity, further reductions in utilization could mean higher prices, not lower ones. Increased use of cost sharing would also increase administrative costs that are already high.

FINANCIAL INCENTIVES TO PURCHASE LESS EXPENSIVE HEALTH INSURANCE

Theoretically, requiring people to pay out of pocket that portion of their health insurance premium that exceeds the cost of an average policy and capping the tax deduction for health insurance premiums would discourage the purchase of more expensive policies. Insurers would have an incentive to encourage physicians to provide cheaper services that are presumably more efficient. It is not clear, however, whether insurance companies would seek greater efficiency in the delivery of health care or simply try to avoid insuring people likely to consume many services. The behavior of insurers is particularly uncertain since our ability to adjust premiums for risk is extremely limited.³⁶

Financial disincentives to purchase expensive insurance (for example, insurance including full coverage of mental health services or dental care) would alter the composition of the group of people buying the more expensive plans. A greater proportion would be people who used medical care extensively and needed the extra services provided, and a smaller proportion would be people who used medical care less often and were purchasing insurance to protect against the risk of severe and costly illness. Thus, the costs of more comprehensive health insurance policies would probably increase.

The use of financial incentives to purchase less expensive health insurance policies would tend to stratify policyholders into plans according to income. This already happens, but further incentives would accelerate the trend. Low-income families would probably enroll in low-cost plans. Administrators of these plans might try to maintain quality but economize through such unpopular measures as cutting amenities, increasing the waiting times for appointments and procedures, limiting access to specialists, or adopting other cost-saving features. Higher-income families would probably purchase higher-cost plans, either to obtain broader coverage or to avoid the less desirable features of the cheaper plans. Thus, people would be stratified into two plans according to income. Because a disproportionate number of members of minority groups have low incomes, stratification according to race would also be likely. If a physician was associated with one plan or only a few, the patients in his or her practice could represent a fairly narrow socioeconomic stratum. Currently, people of every class and race often receive care in the same practice. Nevertheless, treatment may differ according to income³⁷ and race³⁷⁻³⁹ when insurance status is held constant. A stratified system would probably accentuate these differences and arouse concern about differences in the quality of care.

I have argued that the negative effects of policies

intended to make consumers more cost conscious far outweigh any likely benefits. Moreover, these policies are not necessary to contain costs. Nonetheless, the concept of increased cost sharing continues to be very popular with employers, insurers, and policy makers, whereas measures that have a demonstrated ability to contain costs, such as global budgets, capital budgeting, negotiated rates, and expenditure caps,^{40,41} have received less attention. These measures, rather than more cost sharing, should be considered as we attempt to address concern about costs, quality, and fairness in our health care system.

Economic Policy Institute
Washington, DC 20036

M. EDITH RASELL, M.D.

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