

Predicting the Cost of Mental Health Benefits

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COVERAGE FOR MENTAL HEALTH AND SUBSTANCE abuse rests precariously on the margin of health insurance. Is it in or out? If it is in, what special limits are to be imposed? Anticipated costs influence decisions about benefit coverage. Improving the reliability of cost predictions should contribute to better public and private decisions, including those that are part of current health reform. This article applies both employers' experience and research findings from mental health economics to predict the cost of mental health and substance abuse benefits. The approach to prediction, which combines actuarial and economic methods, is used to forecast the costs of several benefit changes for two employed groups.

The direct costs of mental illness and substance abuse incurred by the public and private sectors amounted to about \$217 per person in the United States in 1990 (Rice et al. 1990), or roughly 10 percent of health care costs. Governments and private sources divide this total about equally. Mental disorders (including substance abuse disorders) are treated by drugs, psychotherapies, and other methods. More than half of both public and private funds go to hospital care. Roughly 15 percent of the population has a mental disorder during a year, but only about one-fourth of these receive treatment for the disorder (Robins and Regier 1991). Coverage for mental health care in private insurance affects the

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number of persons treated and the treatment they receive, the costs of treatment, and the division of costs between the public and private sector.

Employers currently play the largest role in defining mental health benefits for the 60 percent of Americans covered under private health insurance. A reading of the business and health insurance press is enough to convince one that the perceived costs have been a deterrent to mental health coverage. Consider, for example, a recent headline in *Business Insurance* (June 8, 1992): "Mental Health Expenses Make Employers Anxious." *Business and Health* (January 1991) carried the headline, "Are Rising Mental Health Costs Driving You Crazy?" Mental health benefits are usually said to be between 10 and 15 percent of total health benefit costs, but are believed to be growing more quickly than other costs. A benefit consultant quoted in *Business Insurance* contends, "The health care trend of 20 percent to 25 percent premium increases we are seeing each year contains an increase in the use of mental health and substance abuse benefits. . . ." The 1991 National Executive Poll on Health Care Costs and Benefits reported in *Business and Health* (September 1991) that, after AIDS, mental illness was the most frequently mentioned disease-specific concern.

Costs of coverage for mental disorders figure prominently in discussion of health reform. A widely circulated document from the Jackson Hole Group (1993) proposing a "Uniform Effective Health Benefit" as part of national health reform echoes the insurance trade press:

Mental Health and Substance Abuse Services are one of the more contentious areas in benefit plan design. . . . The cost consequences of expanded mental health coverage, particularly if it is brought into the mainstream of medical care has [*sic*] been cause for considerable concern. . . . (9)

The Jackson Hole Group recommends a benefit plan covering 30 days of inpatient care for mental conditions (with a \$100 deductible) and 20 outpatient visits, each requiring a \$10 copayment; their plan apparently is modeled on the coverage in many prepaid group practices and is at the low end of employers' typical coverage in conventional plans.

The Jackson Hole Group's proposal would continue the present practice of cutting cost in mental health by limiting days, visits, dollars, and providers. Most private health insurance provides some coverage for both inpatient and ambulatory mental health care treatment, but coverage is

almost always subject to special limits. A recent Bureau of Labor Statistics survey revealed that 97 percent of persons enrolled in plans had some coverage for inpatient care and 95 percent were partially covered for outpatient mental health care (Larson 1992). A significant minority (21 percent) of the work force has the same coverage for inpatient mental health care as for other conditions, but when coverage is the same, it is usually limited. The majority of workers have better coverage against inpatient costs for nonmental than for mental disorders. Parity of coverage for outpatient care exists for only a small fraction of the work force (about 2 percent).

Despite trade-press headlines and frequently expressed concerns about costs, there are few reliable estimates of mental health costs. One source that is often cited as proof of the high and growing mental health benefit costs to employers is the annual survey of more than 2,400 employers conducted by A. Foster Higgins (a benefits consulting firm in New York). This firm's 1990 estimate of \$304 per employee spent on mental health and substance abuse (up from \$163 in 1987) is derived from the employers who responded to the mental health benefit cost question. Because only a quarter of the employers took the trouble to identify their mental health costs, one could speculate that this group might not be representative. Another possibility, suggested by a principal in A. Foster Higgins, is that more than three-quarters of the employers simply cannot estimate their mental health costs.

I will use two employers as case studies. A simple examination of their recent cost experience leads to important observations about costs. Using these cases as background, I will briefly review the cost-projection methods used by research economists and benefit consultants. I will then synthesize the approaches from these two disciplines in a cost-projection method that uses research information and employer data. The costs of several relevant potential policy changes in coverage policy, provider payment policy, and managed care are projected for the two employers. The conclusion will be a consideration of how the methods and results discussed here apply to broader issues of mental health coverage in health reform.

Two Cases

What does an employer pay for a mental health and substance abuse benefit? One large benefits consulting firm furnished data on a confi-

dential basis for use in this article on two employers, referred to here as Employer A and Employer B. Inconsequential details of the benefit plans and employer size and location are not reported in order to prevent identification of the groups.

Table 1 summarizes some information about the employers for 1991. The differences between these employers in size, location, and line of business have been linked by some observers to variations in health costs. Employer B exceeds Employer A's expenditure on mental health and substance abuse care per employee by more than 50 percent: \$499 per employee per year, compared with \$319. The total cost per employee is the sum of plan- and employee-paid cost. In both plans, employees and their families make substantial out-of-pocket payments for mental health. The large difference in plan costs is not due to shifting costs to employees, however, because the total costs for Employer B also exceed the total costs for Employer A by more than 50 percent. The employers have experienced different rates of change in costs. Employer A saw costs in the mental health area rise by 8 percent between 1990 and 1991. Employer B's costs actually fell by 7 percent over the same period. Employer A's costs are roughly what might be expected on the basis of national reports, whereas Employer B's costs are much greater.

Inpatient benefit coverage, described in table 2, is similar for the two employers. Beyond a \$500 limit on out-of-pocket expenditures applying to all health care coverage, enrollees in Employer A's plan have complete

TABLE 1
Employers A and B

Characteristics	Employer	
	A	B
Line of business	Manufacturing	Service
Locations	Mid-Atlantic	Northeast
Number of employees	<10,000	>20,000
Health plan choice	Some HMO	Some HMO
MHSA plan cost/employee	\$319	\$499
MHSA total cost/employee	\$433	\$659
Total cost/employee growth 1990/1991	+8%	-7%

Abbreviation: MHSA, mental health/substance abuse.

TABLE 2
Mental Health Benefits at Employers A and B

Benefit category	Employer	
	A	B
Inpatient mental health	Eighty percent coverage; up to \$500 individual out-of-pocket maximum	Full coverage in general hospital; up to 60 days in a psychiatric hospital
Inpatient substance abuse	Same as above	Same as above in general hospital; annual limit and coinsurance at substance abuse facility
Outpatient mental health	Fifty percent—no limit; MDs and PhDs; does not count toward maximum	Fifty percent to \$1,500; licensed providers
Outpatient substance abuse	Same as above	Eighty percent to \$2,500
Utilization review	None	Inpatient precertification and concurrent

coverage for inpatient care. Employer B fully covers general hospital mental health care while imposing a limit of 60 days per year on care in a psychiatric facility. Employer B covers substance abuse treatment fully in a general hospital, but imposes small amounts of cost sharing if that care is provided in a specialized substance abuse facility.

Employer A requires 50 percent cost sharing for outpatient care, but restricts eligible providers to physicians and Ph.D. psychologists. Employer B also requires 50 percent cost sharing with a limit of \$1,500 in plan costs per person per year, but allows independent billing from all licensed providers. For most outpatient mental health users (who will incur plan costs of less than \$1,500 per year), the plans are virtually identical. Employer B's plan is more restrictive for high-cost outpatient users.

It is evident, then, that the mental health benefit plans cannot be the reason for the difference in costs. Employer A's plan is more generous than Employer B's in nearly every respect. Furthermore, Employer B, the

high-cost employer, has a managed-care plan consisting of precertification for nonemergency admission and continued-stay review. Employer A has an “unmanaged” benefit.

In sum, rates of use and cost vary greatly between these two groups. The plan and total costs for Employers A and B differ by 50 percent, in spite of basically similar coverage. Large differences in rates have been found in earlier reviews of published studies. A colleague and I reviewed the literature prior to the mid-1980s, and we found rates of use that differed in some cases by a factor of five (Frank and McGuire 1986). In these circumstances, cost projection without information about the underlying pattern of use in the population cannot be done reliably. A reasonable method for cost projection must take into account underlying patterns of use in the population under study.

Projecting Costs

The costs of mental health benefits are projected by research economists and benefit consultants. Economists generally refer to nationally representative samples to predict the impact on costs of the demand-and-supply response to payment system changes. Small sample sizes and the long lag between data collection and data availability limit the value of nationally representative surveys.

The federal government sponsors national surveys at irregular intervals on the utilization of health and mental health services. Only one of these, the Health Insurance Experiment (HIE) conducted by the Rand Corporation in the mid-1970s, was designed primarily to investigate the effect of insurance coverage on health care use. The sample was nationally representative, families were assigned to insurance plans (to avoid selection effects), and insurance and utilization (as well as other factors influencing demand) were precisely measured. Data and results from the HIE have been used to project the costs of health and mental health in different insurance plans. Some of the key papers were written by Buchanan et al. (1991), Keeler et al. (1986), Manning et al. (1989), Marquis et al. (1989), and Wells et al. (1982).

The HIE does not cover trends in mental health use for the last 20 years, which have been substantial. For example, few psychologists and no social workers provided independent, office-based care in the

1970s. Virtually no treatment for drug abuse was reported in the HIE (at least labeled as such) either on an inpatient or outpatient basis.

There are more recent national surveys, but their timeliness is disappointing. Major results from the National Medical Care Expenditure Survey, fielded in 1987, for example, have not yet been published. The difficulties in classifying mental health use and response bias in these surveys add to their problems. Although these are large surveys, the number of mental health users is small. According to the 1980 National Medical Care Utilization and Expenditure Survey, only about 400 people reported making a visit during a year to a mental health provider (out of 18,000 respondents). This number is small in terms of supporting empirical analysis and may not reflect the true number of users because of underreporting.

The small sample sizes used in the national surveys increase the difficulty of making reliable predictions for subgroups, based, say, on region or educational status. Any study based on a "national average" is likely to be far off in any particular application because of the variability in baseline demand for mental health care across geographic and population characteristics.

Another economic method, less frequently used, is to estimate the relation between coverage features, population characteristics, and the premiums paid for health insurance. The estimated effect of a coverage feature is then equated with the estimate of the extra cost attributable to this feature. See, for example, Jensen and Morrissey (1990). Elsewhere, I have argued that premium regressions do not yield reliable estimates of the costs of mental health coverage (McGuire 1992). The premium regression is essentially a poorly specified demand equation because it does not take into account either selection issues or the many unobserved coverage features that also influence cost and are likely to be correlated with the observed ones.

In most circumstances, employers concerned about the cost of a benefit change would not refer to an economic simulation model, but would seek advice from benefit consultants employed by their health insurance claims carrier or from an outside firm of consultants. Actuarial methods draw broadly on techniques of applied mathematics, including economics.

A key to the application of actuarial methods for cost prediction is accumulated experience with similar benefit packages. Actuarial consulting firms gather and summarize such information in "rate books."

Suppose an employer offers 45 days of mental health inpatient coverage per year and wants to know what the increase in cost would be if the limit were either increased to 60 or removed altogether. The rate book would give an estimate of the factor by which utilization would rise if the coverage were expanded. The factor associated with the change from 45 to 60 days might be 1.15, indicating that covered use would increase by 15 percent. The factor for the elimination of the limit might be 1.25, indicating a 25 percent increase in covered use. Actuarial factors are generally proprietary information. Clients, or outside reviewers, are not able to judge the validity of the assumptions behind actuarial predictions.

Actuarial factors are insensitive to differences among groups. A factor may be a reasonably accurate estimate of the effect of a benefit change on average, but populations differ in the underlying patterns of use that determine the impact of a benefit change. Take an example of the impact of requiring a \$200 deductible for outpatient mental health care in a plan with 20 percent cost sharing that has no limit. The percentage impact of such a change cannot be well estimated without information on the distribution of high and low users in the population, one element of the pattern of use that differs across groups. A single "factor," however derived, is not up to the task.

Factors estimating the impact of recent innovations in health care benefits will not be coded in rate books. Knowledge about the impact of managed-care and preferred-provider organizations (PPOs) rests with the benefit consultants, who have the most immediate access to results of their clients' experience. Interpretation of this experience is often problematic, as Hodgkin (1992) argues in his review of a series of case studies primarily contained in the trade press. Nonetheless, such experience is the best guide available to the anticipated impact of various benefit changes.

Increasing availability of information has altered the potential methods for cost prediction. For one, employers or their payors can often supply data on user distribution instead of just a total or an average. For example, the number of users accumulating outpatient payments of between \$1 and \$100, \$101 and \$200, and so forth might be known and can thus be accounted for in predictions. Even if only the mean, and not the specific distribution of use, is known, experience with the shape of the distribution in other cases has accumulated sufficiently to allow for reasonable assumptions about the shape of the distribution. Another kind of information comes from research. Mental health services research has produced a flow of reports that bear on cost predictions.

The method for cost projection discussed in the next section takes advantage of both types of relatively new sources of information. More information than the "average" for a population can be used in the course of making projections. Direct or indirect information about the distribution of users (i.e., how many use more than 30 days in a year) is of great value in forecasting the impact of many benefit changes. Health and mental health services research substitutes for actuarial factors in ways that are made explicit (and subject to review). At the same time, the method incorporates important strengths of actuarial and economic approaches. The method can use a great deal of information about patterns of use by a population, thus, like the benefit-consulting approach, tying it closely to the characteristics of the population under study. Furthermore, because the method can be applied quickly and inexpensively, it does not require a major research effort to generate projections. Finally, the rigor of economics is maintained in the projection of demand-and-supply responses.

SMAPS: A Synthesis

In 1989, the National Institute of Mental Health (NIMH) sought a way to project costs of mental health benefits. Policy makers recognized that decisions about mental health benefits were being made in a decentralized fashion in the United States, depending on whether they emanated from branches of the federal government, states, or individual employers. They also saw that there was no single answer to the question, What would it cost? The cost of a benefit provided to a white-collar service firm concentrated in a metropolitan area in the Northeast could exceed the cost to a set of small employers in the Sunbelt by several hundred percent. Furthermore, states, employers, the federal government, and others were asking diverse questions. The NIMH wanted a tool that would respond to the variety of situations faced by decision makers with regard to mental health benefits, while offering the advantage of the growing base of research in economics and mental health and in mental health services. The method they developed is called the Simulation Model for Alternative Payment Systems, or SMAPS. SMAPS has been used to support legislative changes in Connecticut, Maryland, Virginia, and at the national level, and in numerous applications for private em-

ployers (Frank, McGuire, and Salkever 1991; Frank, Goldman, and McGuire 1992; McGuire 1991, 1992).

SMAPS consists of two steps. In the first, calibration of a model of demand for services, information about the study population is combined with data about patterns of service use from research studies to create a description of demand for services by the population under study. Information about a study sample is always limited, amounting to less than the researcher would need for the most accurate forecasts. The calibration step takes advantage of available information for the study population, supplementing data about it, where necessary, with information from outside research. For example, it might be known that in the existing plan, which pays 50 percent of costs up to a covered limit of \$2,000 per year, the average annual expenditure on ambulatory services was \$500 per user. The researcher is perhaps interested in predicting the effect of an increase in the covered limit per year from \$2,000 to \$3,000. Estimating the cost impact of this change requires information about the distribution of users around the mean of \$500 that would be drawn from research studies where necessary. In this example, the calibration step combines data from the study population about its mean use with data from research about the distribution to develop a more complete picture of demand. The calibration step is taken once for each study population.

The second step is simulation of the effect of a plan change, for example, the effect of an increase in the covered limit from \$2,000 to \$3,000 for ambulatory services. Simulation uses the model of demand calibrated in the first step to forecast the effects. The base level of demand is determined in the first step. This, together with assumptions about demand response, underlies predictions about the effects of plan changes. To continue the example, information about the mean use (from the study population) and the distribution of users around the mean (from research studies) gives information about how many users are to be affected by an increase in the limit. An assumption about demand response then leads to a prediction of how much the affected users change their behavior. Assumptions about demand response are made based on mental health services research. The simulation step can be taken many times for each study population, once for each plan change of interest. Multiple changes in a plan can be examined at once.

Both the calibration and simulation steps in SMAPS are based on the general presumption that the underlying patterns of service use in a study population can be characterized by certain regularities, informa-

tion about which has been gained from services research. In the calibration step, the primary interest lies in using outside information to compile more complete data on the underlying patterns of demand. In the simulation step, outside information forms the basis for predicting response to plan changes.

The simulation model is capable of forecasting the effects of demand-side coverage policies, supply-side payment policies, and administrative practices. Assumptions about the effects of a plan change are necessary to forecast effects on the study population. Researchers recognize that despite reasonably good information about some behavior responses (such as the response of demand for ambulatory services to changes in coverage), for many important responses this information is weak. To choose one among many possible examples, there is little basis for a confident estimate of how a change in coverage for ambulatory services would affect demand for inpatient services.

Any method of forecasting is limited by the state of knowledge. The method attempts to make the best use of whatever information is available. Initial assumptions about patterns of use and the effect of plan changes are made after a review of the evidence. Furthermore, the simulation model is designed so that these key assumptions can be easily changed and the effect noted. The best guess can be altered based on judgment about the population under study. If, for example, inpatient use for a certain population is thought to be constrained by the capacity of a local service system, the appropriate assumption about response can be incorporated. Sensitivity analysis of major assumptions about demand response should be part of any comprehensive analysis of plan change. Even when a magnitude of response is not known with confidence, reasonable bounds can often be described. The model can thus be used to generate an upper and lower bound, as well as a best-guess estimate. More details on SMAPS are contained in McGuire (1992).

Applications

We return in this section to the cases of Employers A and B in order to show how costs of alternative plan designs can be projected using SMAPS for several policy alternatives. A change is chosen from each of three areas of plan design: insurance coverage (demand-side cost sharing), provider payment policy (supply-side cost sharing), and managed care. The

changes selected and described below all have some implications for mental health benefits in health care reform, which I will elucidate in the course of the discussion.

“Jackson Hole” Benefit. Coverage for outpatient care is 20 visits per year, with a 10 percent coinsurance per visit and no coverage after 20 visits. Coverage for inpatient care is 30 days per year with no deductible, no cost sharing, and no coverage after 30 days. This benefit is similar to that proposed by Jackson Hole Group (1993).

TEFRA Payment. Coverage for outpatient and inpatient care is unchanged for the two employers. Hospitals are paid differently, shifting from cost-based reimbursement or negotiated per diems to a partially prospective system used in Medicare to pay for discharges at psychiatric hospitals and qualified psychiatric units. This system, named for the Tax Equity and Fiscal Responsibility Act (TEFRA), is a mix of prospective and cost-based reimbursement. (The actual payment system simulated is a simplified version of TEFRA in which half of hospital payment is made prospectively and half is cost based. TEFRA includes ranges of partially cost-based reimbursement that average roughly 50 percent. See Cromwell et al. [1991]). The incentives that TEFRA gives providers to reduce the intensity of care per episode are not as strong as Medicare’s prospective payment system based on diagnosis-related groups.

Outpatient Benefit Enhancement with Utilization Review. A benefit enhancement on the outpatient side is tied to a prior approval requirement. Coverage for outpatient mental health is changed to require only 20 percent coinsurance without limit. However, prior approval is required for more than 10 visits.

Results of the analysis are contained in table 3, with the impact expressed in percentage terms. The “Jackson Hole” benefit is intended to be a cost-conscious benefit package with strict maximums on covered costs, but it fails on this score for both employers because of the large increase in plan costs in the outpatient area that would follow this benefit change. Limiting the outpatient coverage to 20 visits has a small effect compared with the demand-enhancing and cost-shifting effect of decreasing the coinsurance to 10 percent. Most users covered by both employers stop well before 20 visits. The Jackson Hole benefit generates big increases in plan costs by improving the coverage for the first visits for outpatient care.

TABLE 3
Impact of Alternative Plan Designs on Employers A and B, 1991

	Outpatient plan (%)	Inpatient plan (%)	Total plan (%)	Out of pocket (%)
Employer A				
"Jackson Hole" benefit	+65.1	-35.0	+0.7	-32.0
TEFRA payment	None	-17.0	-10.9	None
Outpatient benefit enhancement with utilization review	+15.5	None	+5.5	-62.1
Employer B				
"Jackson Hole" benefit	+58.2	-18.0	+6.1	-30.0
TEFRA payment	None	-17.0	-11.6	None
Outpatient benefit enhancement with utilization review	+32.4	None	+10.2	-66.6

The average number of visits per user is not very different for the two employers, and the shape of the distributions is also comparable, so that their impact on the two employers is similar in percentage terms. If the distributions were materially different, their estimated impact would vary as well. (These factors are accounted for in SMAPS.) Similar percentage impacts imply bigger absolute changes for the more costly Employer B plan. (See figure 1 for a graphical depiction of these results.)

The 30-day limit saves both employers money on plan costs, and here large differences emerge in the predicted experience of the two groups. Employer A has a longer average length of stay (LOS). It is sensible, therefore, to expect that an annual limit on days would have a bigger impact on Employer A. Quantification of "bigger" requires that information about the distribution of annual days per person be incorporated into the predictions. This area of impact illustrates how the same plan change can vary in its effect on employers or other groups, even when basically the same benefit is used. Together, the inpatient and outpatient changes increase plan costs negligibly for Employer A and by a relatively small amount for Employer B.

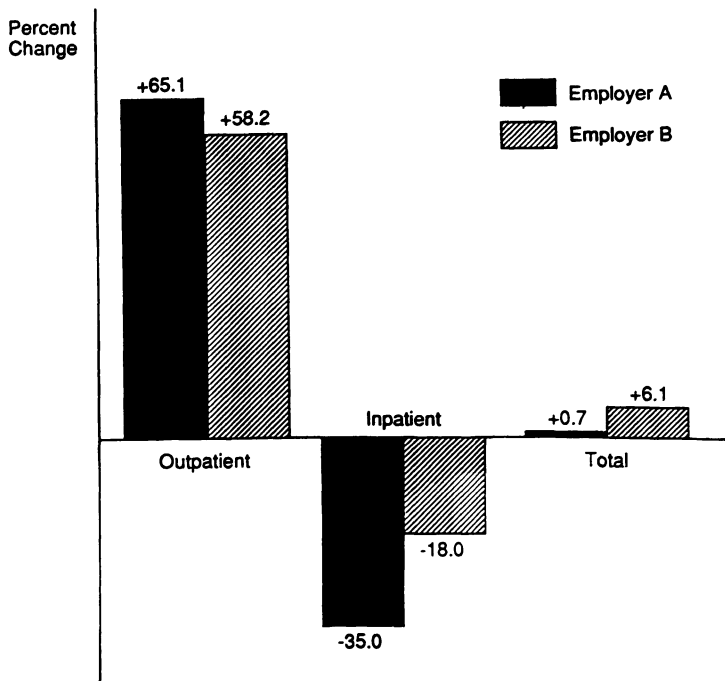


FIG. 1. Impact of "Jackson Hole" benefit on plan costs for employers A and B in 1991.

It is impossible here to discuss the total impact of plan changes. One feature of the Jackson Hole approach, however, deserves special mention. In common with many mental health coverages, this benefit runs against important insurance principles (Frank, Goldman, and McGuire 1992). Coverage is for relatively low-cost events, exposing families to risk of financial ruin from serious illness. The average drop in "out-of-pocket" costs for both employers in the "Jackson Hole" benefit is very misleading because the real burden of out-of-pocket costs is likely to rise after the plan is adopted. In the existing plans, virtually all out-of-pocket expenses are associated with cost sharing for psychotherapy. These expenses are spread across the large number of psychotherapy users and do not represent a catastrophic expense for any family. Under the Jackson Hole benefit, the average out-of-pocket expense falls, but the expenses that remain are concentrated on the very few families with inpatient stays totaling more than 30 days in a year. If an individual is in a hospital for 60 days, for example, the 30 uncovered days at, say, \$750 per day generate out-

of-pocket expenses of \$22,500. Out-of-pocket expenses for inpatient care concentrated on a few families are more burdensome than when they are spread, and they also are more likely to result in the costs of the care being shifted to the public sector through uncollectable bills from private hospitals or care directly provided by public hospitals.

An alternative to a maximum on coverage is to reduce coverage for the first part of costs via a deductible. In a result not shown in table 3, a two-day deductible for Employer B would save slightly more in terms of plan costs than a 30-day annual limit. The deductible approach has the advantage of spreading the cost-sharing burden over many families and not exposing any family to great risk; furthermore, it may do more to discourage hospitalization. With a two-day deductible, Employer A would save only about half what it would save with a 30-day limit because of the longer average LOS in that group.

The stylized TEFRA payment system, with 50 percent prospective payment and 50 percent cost-based reimbursement, has the same percentage impact on inpatient costs for both employers. This supply-side intervention creates the same marginal incentives to reduce costs per episode for all discharges. Although there may be reason to suspect that the incentives and ability of hospitals to reduce LOS and cost are less for shorter episodes, there is no good evidence for such a differential effect.

Creation of a special contracting system for hospitals would probably cost a single employer more than it would save from improved incentives. In addition, if a single employer's method of hospital care payments differed from that of other employers with the same third-party payor, a hospital might not pay attention to the differential in financial incentives. The simulation here of the TEFRA system captures what is likely to happen if the employer in question participates in a payment system applicable to a relatively large subset of a hospital's business. A single employer could not achieve these savings, but they could be accomplished as part of systemwide reform.

Nonfinancial controls on mental health costs appeal to employers because of the potential of cost control, to employees and families because of the absence of cost shifting, and to both because of the promise of improving the appropriateness of services. What little experience has accumulated on the many forms of utilization management has not been thoroughly analyzed. General statements about the best forms of utilization management and their impact are not possible at this time. A number of authors have questioned every one of the claims that support

utilization management (see Hodgkin [1992] for review). For purposes of illustration, a benefit enhancement on the outpatient side combined with a prior-approval requirement for continuation beyond 10 visits constitutes a change in the spirit of many observed interventions. In terms of cost, such an intervention has three effects: costs are shifted onto the plan from employees because of the benefit enhancement; utilization is encouraged because of the coinsurance reduction; utilization is eliminated because of the prior authorization requirement. How do these balance out? This depends on the number of users who will request authorization to continue, the approval rate of the review, and generally on the distribution of demand (known in the case of the two employers) and the responsiveness of demand to coinsurance (known on the basis of research experience). It is assumed here that the approval rate at 10 visits is 50 percent. For Employers A and B, the benefit enhancement increases costs by 15.5 and 32.4 percent, respectively, ignoring administrative costs of the review itself. The costs to Employer B are higher owing to a greater benefit enhancement, which overrides the original plan limit. The comparisons in table 3 emphasize the same point as well in the context of a utilization management intervention (see also figure 2). The

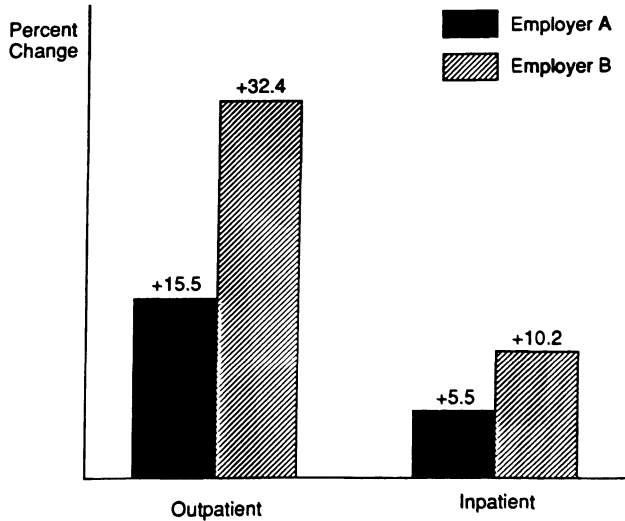


FIG. 2. Impact of an outpatient benefit enhancement with utilization review on plan costs for employers A and B in 1991.

impact of any intervention depends on the initial benefit of the plan and the existing patterns of use.

Although we have only considered the cost side of the plans presented here, the cost analysis can be helpful in making decisions about payment plans. A plan emphasizing "first-dollar" coverage and limiting costs by setting covered maxima in terms of visits and days, such as the "Jackson Hole" benefit, is a poor choice in terms of cost control and burden of out-of-pocket payments. An approach using deductibles for inpatient care and/or supply-side cost sharing can meet the cost savings of a relatively low limit like 30 days, and is preferable to the limit in terms of (1) risk imposed on families and (2) incentives to encourage outpatient care.

Mental Health Costs and Public and Private Policy

In any likely future national health policy scenario, employers, or health-insuring organizations acting on their behalf, will continue to make decisions about the mental health coverage of their employees and their families. It is important, therefore, that these decisions are made with the best available information about costs. Without reliable information, preconceptions carry weight. Powerful preconceptions work against provision of mental health benefits. As an example, I cite remarks made at a panel entitled "Managing Mental Health Costs" and published by the Society of Actuaries (1989, 1990):

We may have overutilization, unnecessary utilization. . . Providers [are] openly marketing to consumers.

None of us can show up at a general hospital and say, "Put me in intensive care. . . ." In psychiatry you can walk into any psychiatric or substance abuse treatment facility or general hospital with a psychiatric unit and request admission. And, after careful review of your insurance plan you will have a consensus on that referral.

There are some segments of the population where it is actually a status symbol to say, "I'm going to my therapist."

Providers do not have protocols for treatment.

We are spending a lot more money, taking up a disproportionate share of our resources, and it is not resulting in improved outcome.

There is no standardized treatment. Misdiagnosis is the rule, not the exception. Professional consensus is lacking. Generally speaking, the psychiatrist believes everything can be treated with drugs and is biologically based, the psychologist thinks he can talk you through everything, the clinical social worker thinks the problem is society, and the marriage and family counselors think everything has to do with the relationships within the family.

[Providers] construct a treatment plan which maximizes [the] benefit.

Research in economics and mental health and experience in the benefit-consulting industry has accumulated over the past 10 to 15 years to the point where costs of mental health benefits for employed populations can be reliably estimated. Cost is a problem in provision of mental health benefits. However, preconceptions about the "uncontrollability" of a mental health benefit (or other preconceptions) need not dominate decision making.

I have stressed in this article that there is no single answer to the question, What is the cost of a mental health benefit? The same plan may cost much more per capita or per employee in one part of the country or for one type of covered group. Employers A and B, with similar benefit plans but different costs, illustrate the point. For purposes of cost projection, it is thus critical to have baseline data on the population of interest. In most situations these data will be patterns of use in the current plan. When such data are available, the analyst is best situated to take advantage of research and experience on *impact* and to avoid the uncertainty about the *current level* of utilization.

For some decisions, population diversity may not be so important. For example, at a national level, decisions about mandatory minimum benefits in national health reform may proceed on the basis of a "representative" population or a composite of smaller groups. At some point, however, national policy works down to the level of regions and groups. If the same national plan were mandated for the populations in Employers A and B, either (1) the higher cost in employer B would have to be reflected in the premium attributable to mental health benefits, or (2) employees from that group could expect greater disruption in their patterns of care as they are forced to conform to lower standards of cost per employee. The direction of adjustment will depend on the form of national policy that is adopted. Baseline differences and response to payment system features must be considered when national policy is implemented.

The policies analyzed here reflect the basic choices faced in the context of health care reform. Policy makers must decide the mix of demand-side cost sharing, supply-side cost sharing, and managed care to be mandated, encouraged, or discouraged in national policy. At this time it appears that the Clinton Administration's proposal will mandate a certain amount of demand-side cost sharing, explicitly encourage managed care, and implicitly encourage supply-side cost sharing by creation of regional purchasing cooperatives. As the debate on health reform proceeds, modifications in this mix can be expected.

Projection of costs for employed groups like those in Companies A and B is easy compared with cost projections for persons not currently covered in group plans. The biggest unresolved issue about cost of mental health and substance abuse coverage in national health reform concerns the presently uninsured and underinsured. Nordquist and Wells (1991) have estimated that 16 percent of the uninsured have a serious mental disorder. These people are now clients of public mental health systems and incur large costs. No one knows how much of their costs would be covered by a mandated benefit package with a 30- or 90-day annual limit, for example. No one knows what their costs would be for other covered services or how their patterns of use are likely to change as they are "mainstreamed" into a third-party payment system. It appears that a large share of state mental health system costs will be transferred to a new financing mechanism under most versions of health reform, and an even larger share of state substance abuse treatment program costs would be transferred. No good data exist to assist with this part of the cost projection problem.

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