Cost Sharing and the Changing Pattern of Employer-sponsored Health Benefits

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ONE OF THE MOST STRIKING FEATURES OF AMERICAN health care in the 1980s has been an apparent near-revolution in employer initiatives to control the costs of health-related fringe benefits. Reportedly, employers are redesigning group insurance plans to increase consumer cost sharing, offering employees the option of joining a health maintenance organization (HMO), increasing employee premium contributions, and implementing utilization review programs aimed at assessing the appropriateness of services. Because employers provide the major share of health insurance in the United States, these changes have important implications for the conduct and performance of medical care markets.

As recently as 1981 Sapolsky et al. were reporting that employers could do little to contain benefit costs. The benefits had long since been given and they could not be withdrawn without great worker dissatisfaction. Further, generous benefits were provided because workers wanted them, competition required them, and fear of unions obligated firms to offer them. Wallen and Williams (1982) were equally pessimistic about the potential of employers to be agents for change.

More recently, coalition and consultant surveys have found employers quite concerned about their fringe benefits costs. Kralewski et al. (1984) interviewed chief executive officers (CEOs) in Minneapolis and

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St. Paul and came away convinced that employers were concerned with controlling costs. Herzlinger and Schwartz (1985) and Herzlinger (1985) found similar attitudes among chief executives of Fortune 500 firms and the top nonindustrials. The major reason for their emerging concern is that outlays for group health insurance have lately increased at an unprecedented rate. Health insurance premiums paid by employers more than doubled between 1980 and 1985 (Chamber of Commerce 1986). Because premium increases were disproportionately larger than increases in other compensation-related costs, many employers found that for the first time in history they were spending more on health insurance than on pension contributions, profit sharing plans, and life insurance benefits combined (Chamber of Commerce 1986). That new prominence of premiums on corporate income statements is said to have had an eye-opening effect on many CEOs.

The full extent of the apparent revolution has largely gone undocumented, however. There has not yet been a replication of the massive 1977 National Health Care Expenditure Survey, now the source of most statistics regarding employment-related health insurance (Farley 1986). A large number of business coalitions, benefit consultants, and researchers have reported survey results, but the surveys have tended to be focused on particular geographic and metropolitan areas, limited to very large employers, or saddled with rather low response rates. As a consequence, it has been difficult to gauge accurately the true extent of employer innovations in health benefit offerings.

The purpose of this article is to provide national estimates of initiatives taken by medium and large private-sector employers between 1981 and 1985. We examine how employment-based health insurance benefits have changed and we assess the extent to which firms in this class have adopted strategies commonly viewed as cost effective. Specifically, we examine the extent to which employers are offering employees a choice of alternative health plans. We pay special attention to health maintenance organization (HMO) offerings and enrollment. Second, we examine how the mechanisms for funding health insurance have changed. We report on the growing trend to self-insure health benefits, and offer some reasons why so many firms are now choosing to self-fund. Third, we report the degree to which employees are making larger contributions toward their health insurance premiums. Fourth, the health economics literature and particularly the Rand Health Insurance Study have demonstrated that copayment at the point of

health services delivery decreases the use of services and expenditures for health care. We examine whether firms have increased cost-sharing provisions for the largest category of medical expenditures, inpatient hospital care, and we report on changes in cost-sharing provisions of major medical plans (e.g., deductibles and coinsurance).

In a recent *Wall Street Journal* commentary, Uwe Reinhardt (1986) suggested that the success that employers believe they have achieved in controlling health benefits costs is the result of "money illusion." The general decline in inflation since 1980 has also slowed the growth in national health care expenditures in nominal dollars. After adjustment for inflation, however, it is evident that expenditures for health care have not been increasing at a slower rate, but instead increasing at an ever-rising rate since 1980. Our analysis suggests why this is so. Collectively, firms have made some efforts at cost containment, but these initiatives have been very modest and appear to be more than offset by an expansion in coverage that occurred over the period. Although a number of firms took significant steps to control health benefit costs, at this juncture it appears that, as in most revolutions, many of the "participants" are sitting it out.

Earlier Studies

The scope and content of employer-sponsored health insurance was well documented with the 1977 National Medical Care Expenditure Survey (NMCES) (Farley 1986; Wilensky, Farley, and Taylor 1984; Farley and Wilensky 1983). As of 1977 approximately 97.7 percent of persons under the age of 65 with job-based insurance had hospital room and board coverage, 83.3 percent had coverage for physician office visits, 93.0 percent had outpatient diagnostic test coverage, and 48.7 percent had coverage for care in a skilled nursing facility. Only 4.3 percent had HMO coverage. The average insurance premium paid by employees for family coverage was $253 per year. This constituted 24 percent of the total premium. There was relatively little copayment for hospital care; 72 percent faced neither a deductible nor coinsurance for the costs of a semiprivate hospital room. In contrast, physician services outside the hospital were subject to substantial copayments. Sixty percent of the population had to pay both a deductible and

coinsurance toward expenses for physician office visits. Unfortunately, the survey is ten years old.

More recent surveys regarding employer-sponsored health insurance have been smaller in sample size and more limited in scope than the NMCES effort. The post-NMCES surveys fall into three groups: surveys by the Bureau of Labor Statistics (BLS), health care coalition surveys, and surveys by benefit consultants. The BLS surveys are the basis for our study. Before describing these data we discuss the coalition and consultant surveys, since current perceptions regarding private sector cost-containment initiatives are based mostly on them.

Coalition Studies

These studies generally described the nature of health benefits and the changes in benefits that took place in a local employer community. A few examples are illustrative:

- The Greater Atlanta Coalition on Health Care Costs, Inc. (1985) surveyed 850 firms, obtaining a 12.1 percent response rate. It found that 45 percent of the responding firms offered an HMO, more than 50 percent required no employee premium contribution for coverage, and one-half had deductibles of $100 or less per individual in their fee-for-service plans. In the preceding two years, 33 percent of the responding firms had decided to self-insure, 38 percent had increased copayment rates, 51 percent had reduced benefits under their plans, and 33 percent had increased benefits.
- The Dallas Business Group on Health (1984) analyzed data from 250 employers in the Dallas area. It found that 40 percent had recently increased deductibles. A full 45 percent had deductibles of more than $150 per individual per year.
- The San Francisco Bay Area Employers Group on Health (1984) analyzed data from 55 firms, a 60 percent response rate. It reported that 16 percent of the firms offered multiple health plans, 54 percent were self-funded, and 45 percent of the employees covered by the responding firms were enrolled in an HMO.
- The St. Louis Area Business Health Coalition (1984) obtained data from its 35 members. It found that two-thirds had implemented

cost-containment mechanisms and one-half had recently begun to offer an HMO plan.

- The Tulsa Business Health Group, Inc. (n.d.) surveyed 3,200 Tulsa area employers and obtained a 20 percent response rate. It found that 95 percent of large-sized firms (10 or more employees) offered insurance, 30 percent of smaller firms did not. Eighteen percent of the relatively larger firms self-insured and 19 percent offered an HMO. Overall, 37 percent required premium sharing for individual coverage, 42 percent had coinsurance provisions.
- The Worcester Area Systems for Affordable Health Care (1986) surveyed 135 firms and obtained a 66 percent response rate. It found that 22 percent paid the full premium for coverage, 75 percent offered two or more plans in 1985—up from 72 percent in 1984.

The problems with these sorts of studies are readily apparent. First, the studies relate only to a particular city or state. As Feldman, Jensen, and Dowd (1985) point out in their own coalition-type study of Minneapolis-St. Paul, one cannot generalize the results to other communities. Second, the low response rates obtained in many of these surveys and the small sample sizes make it difficult to place reasonable confidence in the findings. The studies were often limited to coalition members—a self-selected group likely to be particularly concerned about health benefits costs and already experimenting with benefit plan changes. Further, the surveys tended to concentrate on large urban employers. As Feldman, Jensen, and Dowd (1985) and the Kansas Employer Coalition on Health (1984) observe, larger firms and those in urban areas are more likely to have made revisions in their benefit packages. Further, as Farley (1986) and Chollet (1984) note, these firms had richer benefit packages to begin with.

Consultant Studies

These studies were generally based upon surveys of clients or more general samples of firms and were conducted or sponsored by benefit consulting firms. Typical of the approach is the Herzlinger and Schwartz (1985) and Herzlinger (1985) survey of Fortune 500 industrial firms and large nonindustrials. While not conducted by or for a consulting firm, their study exemplifies the approach generally used. Their survey

TABLE 1
Percentage of Firms Indicating a Change in Benefit Provisions, by Survey

Survey	Sampled firms	Firms responding	Response rate	Percentage increasing premium contribution of employees	Percentage increasing coinsurance	Percentage increasing deductible	Percentage who offered HMO as of survey data
Business Insurance Board (1984):							
Union members*	270	126	47%	26%	9%	34%	66%
Salaried workers*	270	126	47	35	10	36	66
Business Roundtable Task Force on Health (1985):							
Hourly workers	Roundtable members	122	Unspecified	49	21	33	94
Salaried workers	Roundtable members	122	Unspecified	77	33	53	94

Equitable Healthcare Survey III (1985)**	Firms with 500 or more employees	1,250	Unspecified	14***	33	49	34
A.S. Hansen, Inc. (1986)	Unspecified	861	Unspecified	33	33	43	50 or more
Hay/Huggins Co. (1984)*	Unspecified	869	Unspecified	21	16	33	59
Health Research Institute (1986)	1,500 largest U.S. employers	Unspecified	Unspecified	20 or more	20 or more	50 or more	70
Hewitt Assoc. (1984)	Unspecified	1,185	Unspecified	9***	25***	33***	60

Notes: *As reported by American Medical Association (1985).
** Findings from this survey adjusted to reflect a two-year rather than three-year increase.
*** Reports the percentage of firms *introducing* the provision.

obtained a response rate of only 30.3 percent. In 1983 they found that 11.8 percent of the firms surveyed required no premium sharing on the part of employees. Most of the reporting firms required contributions in the range of 1 to 19 percent of premiums. Nearly all the firms used the standard 80/20 percent coinsurance provision. Ninety-seven percent had some version of self-insurance.

As shown in table 1, the various consultant surveys show substantial two-year increases in the percentage of firms raising the amount of employee premium-sharing and employee cost-sharing provisions in their offered plans. Further, a majority of firms reported offering an HMO. It is certainly tempting to conclude from these studies that employers have been actively modifying their health benefits packages to introduce numerous cost-containment incentives.

As with the coalition studies, these reports are useful in monitoring trends for the group of firms being studied. It is misleading, however, to infer that employers as a whole are actively implementing changes. Clearly, the studies are heavily weighted toward the largest of firms. The Health Research Institute (1986) and Business Roundtable Task Force on Health (1985) studies, for example, were limited to Fortune 1000 and Fortune 500 firms only. Since these firms have richer coverage to begin with and are arguably more likely to be innovative, the consultant studies may well overstate the extent of health benefit changes under way in the United States.

Another systematic problem is that most of these studies neglected to report a response rate. Without this piece of information it is impossible even to gauge how representative the findings are for the particular group that was surveyed. The few studies that reported rates revealed high levels of nonresponse—from 53 to 70 percent. Thus, at best, estimates of private-sector initiatives based on these studies are probably very crude. As we presently show, consistently collected data from a random and representative sample of medium- and large-sized firms show a much less clear-cut picture.

Data Sources and Methods

Our data are from the U.S. Bureau of Labor Statistics (BLS) Employee Benefit Survey (EBS) covering the years 1981 through 1985. For each year the EBS provides nationally representative data for about 30

percent of all employed persons in the private sector. The most recent survey, for example, provides data on the health benefits held by 20.5 million full-time permanent employees who worked in 43,000 establishments nationwide. The survey provides a wealth of information but, presumably because of the complex nature of the data files, it has been virtually unexplored by the health services research community. Although the BLS annually reports health insurance statistics gleaned from the most recent EBS survey, there is considerably more information collected than they report (see, for example, U.S. Bureau of Labor Statistics 1982–1987). We examine aspects of coverage not previously reported by the BLS, and focus on how coverage changed between 1981 and 1985. Although our data are not representative of the entire privately insured population, as was NMCES, they are more recent. Our data cover about one-half of the privately insured population described through that effort (Farley 1986).

Specifically, EBS is representative of private-sector American establishments (excluding Alaska and Hawaii), which, at that time, employed at least 50, 100, or 250 workers, depending on the industry. The industries covered are mining, construction, manufacturing, transportation, communications, electric, gas, and sanitary services, wholesale and retail trade, finance, insurance and real estate, and selected services.

Each survey's sampling frame was developed from the most recently available state unemployment insurance (UI) reports (relating to March of the prior year in most cases). As such, it included all private American firms, except for those in a few small subgroups which, under law, are excluded from UI program participation. A sample of 1,500 firms (give or take 20) was surveyed in each year. Of those, 85 to 90 percent responded, depending on the year. Since most of our data were coded by BLS staff in Washington from actual insurance documents and summary plan booklets, the response rates for specific aspects of benefit provisions were exceptionally high among firms that agreed to participate. A more detailed discussion of our data and methods is contained in the appendix.

TABLE 2
Options Available for Medical Insurance* in Medium and Large Firms

Plan and premium-sharing options**	Percentage of participants offered the option		
	1981	1984	1985
Single plan offered:***	76.0%	71.0%	65.5%
Fully paid by employer	34.1	32.6	31.3
Contributory single plan	41.9	38.4	34.2
Choice of plans available:***	23.9	29.0	34.5
All plans require a contribution	11.0	13.9	16.7
Some but not all require a contribution	5.7	7.7	9.2
No plan requires a contribution	7.3	7.3	8.6
HMO made available:	14.1	19.5	25.9
One or two HMOs	10.7	12.1	14.9
Three or four HMOs	2.4	5.0	7.4
Five or more HMOs	1.0	2.4	3.6
Multiple fee-for-service plans:	11.5	12.1	12.2
Two FFS plans	9.2	10.3	9.5
Three or more FFS plans	2.3	1.8	2.7

Notes: *Data reflect options for medical insurance, i.e., plans which pay at least part of hospital and surgical expenses and other costs of illness. Insurance plans which do not, such as supplemental dental or vision care plans, are not included.
** Combined basic major medical plans are treated as a single plan unless the employer makes one or the other component optional, in which case they are treated as two plans.
*** The decomposition by financing arrangement is based on financing provisions for family coverage.

Options for Coverage, Premium Sharing, and Type of Insurer

Table 2 describes recent trends in the options for coverage made available to full-time employees who have health insurance provided as a fringe benefit. The data reflect options for medical insurance. Medical insurance pays part of hospital and surgical expenses and other costs of illness; insurance plans which do not, such as supplemental dental or vision care plans, are not considered medical insurance.

In 1985 more employees were offered a choice of alternative plans than in 1981. The percentage who had a choice of options rose from 23.9 to 34.5 percent between 1981 and 1985. Most of the growth was due to more firms deciding to offer an HMO, especially between

1984 and 1985. More than one-half of the growth in the availability of an HMO option occurred in 1984 alone. Although the consumer choice model is more common now, most employees still have no choice of plans. Sixty-six percent of employees in 1985 were in firms that offered a single health plan. In nearly every instance, their plan was a traditional fee-for-service plan.

The most common financing arrangement for family coverage in each year, when offered a choice of plans, was one in which all plans required an explicit premium contribution from the worker. This arrangement was adopted close to one-half of the time. In 1985 the next most common arrangement was one in which some but not all plans required a contribution. In 1981 relatively more of the multiplan firms paid all of the premiums in full.

Approximately 65 percent of employees were in plans for which the employer paid the full cost for individual coverage, down from 72 percent in 1981 (table 3). In contrast, 45 percent had fully paid dependent coverage in 1985, down only 1 percentage point from five years earlier. These statistics differ from those published by the BLS because they pertain strictly to medical insurance. The large increase in premium sharing reported by the BLS (1982–1987) is due to the inclusion of dental insurance contributions when a supplemental dental plan was offered.

The average dollar contribution for medical insurance among workers who were required to contribute increased only slightly over the period. For individual coverage it rose from $7.25 to $11.47 per month; for family coverage it rose from $21.46 to $36.93 per month. Of course, in constant dollars the changes were much smaller: only $2.89 for individual coverage and $11.55 for family coverage in constant 1985 dollars (with inflation measured by changes in the overall Consumer Price Index).

Premium-sharing provisions varied depending on whether the subscriber belonged to an HMO. Relative to workers with fee-for-service coverage, workers who chose an HMO were more likely to share in the cost of individual coverage but less likely to share in the cost of dependent coverage. These differences would appear to make HMOs more attractive to families and less attractive to individuals, aside from the other differences between traditional insurance and HMOs that would affect enrollment patterns. Some have suggested, for example, that HMOs may attract young healthy families by offering generous

TABLE 3
Extent of Premium Sharing for Medical Insurance* in Medium and Large Firms

Provisions	1981	1984	1985
INDIVIDUAL COVERAGE PREMIUM			
Percentage with fully paid coverage	71.7%	65.9%	64.9%
Percentage with contribution required	28.3	34.1	35.0
Contribution level, if required:			
As a percentage of premium	23.10	21.46	24.09
Monthly dollar amount	$7.25	$11.74	$11.47
Inflation-adjusted contribution**	$8.58	$12.16	$11.47
FAMILY PLAN COVERAGE PREMIUM			
Percentage with fully paid coverage	46.0%	44.5%	45.2%
Percentage with contribution required	54.0	55.5	54.8
Contribution level, if required:			
As a percentage of premium	***	28.24	24.16
Monthly dollar amount	$21.46	$34.87	$36.93
Inflation-adjusted contribution**	$25.38	$36.11	$36.93

Notes: *Data describe the provisions for premium sharing of medical insurance. Supplemental dental or vision care plans are not considered medical insurance.
** Monthly dollar contribution in constant 1985 dollars; adjustment made using the Consumer Price Index, all items.
*** Data for 1981 are suppressed because the survey question in that year is not strictly comparable.

coverage for maternity services and routine child care (Hudes et al. 1980; Jackson-Beck and Kleinman 1983). These out-of-pocket premium differences explain, in part, why HMO subscribers nationally have a larger average family size than subscribers with fee-for-service coverage (Welch 1985). HMOs may be attracting relatively more families into their plans because of the premium-sharing arrangements adopted by employers.

Most fee-for-service plans can be classified as having one of three typical arrangements: basic coverage only, major medical coverage only, or basic plus major medical coverage. The most common is the last. Basic benefits generally cover certain costs incurred during hospitalization (e.g., hospital room and board, surgical charges, etc.), but not much more. Historically, basic benefits have not entailed

deductibles or coinsurance. Instead, these plans limit coverage by restricting the number of covered hospital days (e.g., to 120 or 365) or by placing a dollar ceiling on the total benefits to be paid out by the plan. Major medical benefits, on the other hand, usually cover care delivered in many different settings. In these plans, a deductible and coinsurance must typically be paid and, unlike basic benefits, restrictions on the number of hospital days covered are rare. Although these plans too may stipulate a dollar limit on total benefits, when they do the limits are very generous (e.g., $250,000 or $1,000,000 per insured).

In combined basic-major medical plans, inhospital care is first covered through the basic part of the plan; once these benefits are exhausted, major medical picks up coverage. Thus, major medical supplements basic benefits in two ways: first, by providing extra coverage where the basic component leaves off, and second, by covering more categories of care not covered under basic benefits.

Free-standing major-medical-only plans come in two varieties: a strict and modified version. Under the strict version, all covered expenses are subject to a deductible and coinsurance while under the modified version, certain categories of care (e.g., hospital and/or surgical expenses) are covered in full until a specified dollar amount has been paid out; then the deductible and coinsurance apply. A classification problem arises with modified comprehensive plans. Although they are sold as major-medical-only plans, the presence of full initial coverage for hospital care (and sometimes other categories) makes them resemble two-part, basic major medical plans. The BLS classified these plans as containing both basic and major medical benefits.

As Frumkin (1986) and others have reported, there is a clear trend away from the coverage of hospital care under a separate basic benefit. While 83.2 percent of subscribers had basic fee-for-service coverage in 1981, 60.3 percent had such coverage in 1985 (table 4). Those plans for which basic coverage was eliminated were redesigned so that hospital and other medical expenses were covered exclusively under a major medical plan. In most cases, the change entailed converting a two-part plan or a modified major medical plan to a strict comprehensive major medical plan. The number of persons with strict comprehensive plans rose from 14.2 to 32.2 percent over the period.

HMO enrollment among employees in medium and large firms

TABLE 4
Type of Insurer for Medical Coverage in Medium and Large Firms

Type of insurer	Percentage of participants		
	1981	1984	1985
Fee-for-service coverage:	97.4%	95.1%	92.5%
Participants with major medical coverage:	91.5	91.1	90.3
Self-funded*	20.6	33.7	41.1
Blue Cross/Blue Shield	10.0	13.3	12.3
Commercial insurance	60.9	44.1	36.9
Participants with basic hospital coverage:	83.2	66.7	60.3
Self-funded*	15.3	18.8	19.4
Blue Cross/Blue Shield	22.4	25.1	21.3
Commercial insurance	45.5	22.8	19.6
Health maintenance organization	2.6	4.9	7.5
Total	100.0	100.0	100.0

Note: *Includes plans with combined funding media when self-insurance was part of the combination.

continues to be quite low. Although it about tripled over the period, in 1985 only 7.5 percent of employees covered by the survey belonged to such plans.

Table 4 also records that 41 percent of employees with major medical coverage in 1985 were in self-funded plans, a doubling since 1981. With self-insurance the firm assumes all or part of the risk for paying claims submitted under the plan. A totally self-insured plan is one for which the employer assumes all of the risk for paying claims and undertakes directly the tasks of handling and settling claims. A more common form of self-funding entails contracting with an outside professional administrator to manage the claims-processing activities of the plan. With this type of self-insurance, called an "administrative services only" (ASO) arrangement, the plan's administrator processes and pays claims, often conducting analyses of the claims paid, and provides professional advice to the employer on problems relating to claims. The employer still bears full financial liability for payment of claims, however. A third approach is an arrangement whereby the employer assumes only partial financial risk for claims payment. The employer agrees to pay claims up to a specific limit. If claims exceed the limit, the employer continues to pay claims but is reimbursed

by an insurance company for the excess expense. In effect, a form of stop-loss insurance is purchased for claims above the agreed-upon limit. Normal claims administration tasks are typically performed by the insurance company for these "minimum premium" plans. Hewitt Associates (1984) estimated that 40 percent of all self-insurance plans are of this type.

Self-funding has been embraced by employers as a means of cutting insurance outlays without also having to cut benefits. A major incentive for self-insuring is the avoidance of state insurance regulation and taxation. Section 514 of the Employee Retirement Income Security Act of 1974 (ERISA) specifically shelters self-funded benefit plans from state regulation by preempting state laws with federal law. Consequently, self-funded plans can avoid state premium taxes. The tax, usually determined as a percentage of the insurer's gross premiums, is levied on commercial insurers in all 50 states and on Blue Cross/Blue Shield plans in 26 states. It averages about 2 to 3 percent of premiums.

The firm also avoids compliance with state laws mandating either the content or availability of coverage. Examples include regulations requiring that alcoholism, drug abuse, or mental health treatments be covered, and a requirement mandating that terminated and laid-off workers and others in special circumstances be allowed to remain in the group plan. Most of these state regulations were enacted within the last five years. In 1985 more than 600 such statutes existed in the various states (U.S. Health Care Financing Administration 1986). In essence, self-insuring gives the firm far more control over the content of its policy and the means for funding payment of claims.

Changes in Covered Services

Virtually all persons with health insurance in every year had some coverage for hospital room and board, intensive care charges, miscellaneous hospital expenses, surgical charges, inhospital physician charges, and expenses for diagnostic X-ray and laboratory tests. Most persons also had coverage for outpatient physician visits (96 percent of subscribers in 1985), nonhospital prescription drugs (98 percent), hospital confinements due to a nervous or mental disorder (98 percent), and expenses for a private-duty registered nurse when authorized by an attending physician (95 percent). Areas of coverage provided less

frequently were charges for care in an extended care facility (67 percent), home health care (56 percent), second surgical opinions (51 percent), alcoholism treatment (69 percent), drug abuse treatment (61 percent), hearing care (18 percent), hospice care (23 percent), and physical exams (13 percent).

Surprisingly, for virtually every one of these categories of care, the percentage of persons with coverage of some sort either increased between 1981 and 1985, or remained at 100 percent. Coverage in settings other than the hospital or physician's office increased markedly. Sixty-seven percent of subscribers in 1985 had some coverage for noncustodial care provided in a licensed extended care facility (e.g., a nursing home), compared with 56 percent in 1981. About twice as many subscribers (56 percent) had coverage for home health care services in 1985 relative to 1981. Coverage of hospice care was less common; only 23 percent had the benefit in 1985. In contrast, coverage of psychiatric hospital care other than in a general hospital was up only slightly, from 7.0 to 8.5 percent over the five-year interval. The incidence of coverage for alcoholism treatment nearly doubled. While only 36.2 percent had alcoholism treatment coverage in 1981, by 1985 69 percent did.

For all but one category of care (surgical charges), the incidence of full and unlimited coverage (i.e., insurance without cost sharing or limits of any sort) increased over the period. To determine whether this was due to the increased enrollment in HMOs, which typically provide more generous coverage, we examined changes in coverage separately for each of three types of plans: HMOs, self-funded plans, and insured fee-for-service plans. The increases were only partly due to broader HMO coverage. Among persons covered through Blue Cross/Blue Shield or commercial plans, there was still an increase in the proportion with full and unlimited coverage for nearly all categories of care, although for most categories the rise was small. The content of self-funded fee-for-service plans, however, showed the opposite trend. Except for hospital intensive care charges, coverage in self-funded plans was characterized by a decline in the percentage of enrollees with full and unlimited coverage.

TABLE 5
Provisions Governing Hospital Care in Medical Insurance Offered by Medium and Large Firms

Characteristics of benefits*	Percentage with trait		
	1981	1984	1985
Basic benefit covering hospital care	85.9%	71.5%	67.9%
Plan pays semiprivate room rate with:	77.9	67.5	64.2
No deductible or coinsurance	67.0	53.4	47.1
Days limit ≥ 365**	48.5	35.9	32.4
Days limit < 365	18.5	17.5	14.7
Either deductible or coinsurance	10.9	14.1	17.1
Days limit ≥ 365	9.2	13.1	16.0
Days limit < 365	1.7	1.0	1.1
Plan pays daily dollar allowance with:	8.0	4.0	3.7
No deductible or coinsurance	7.9	4.0	3.7
Days limit ≥ 365	1.7	1.0	1.4
Days limit < 365	6.3	3.0	2.3
Either deductible or coinsurance	0.1	0.0***	0.0***
Hospital care only under major medical	14.1	28.5	32.1
Total with coverage of hospital care	100.0	100.0	100.0

Notes: *Benefit provisions describe the coverage of hospital room and board expenses.
** Includes those employees with fully comprehensive unlimited coverage.
*** Less than one-tenth of 1 percent.

Changes in Deductibles, Coinsurance, and Limits

Other important dimensions of insurance are the cost-sharing provisions for each category of care covered, and the various limits, if any, placed on coverage. More employees and their families now face some initial cost sharing for hospital care, in part because basic benefits are less common, but also because the provisions within basic plans are changing too. More basic plans now stipulate that a deductible or coinsurance be paid toward a hospital stay (table 5). In 1985 one out of every four subscribers with basic coverage had to pay a deductible or coinsurance toward hospital room and board, whereas in 1981 it was one out of every eight. Changes in both the incidence and content of basic coverage led to a decline in the percentage with full initial coverage for hospital care, from 67 percent in 1981 to 47.1 percent in 1985.

TABLE 6
Major Medical Coverage of Physician Office Visits Offered by Medium and Large Firms

Characteristics of benefit	1981	1984	1985
Among subscribers with major medical benefits:			
DEDUCTIBLE:			
Percentage of participants with an annual flat-dollar deductible*	93.1%	90.2%	90.8%
Percentage with:			
$50 or less per individual	25.7	18.9	14.4
$51 to $99 per individual	5.7	3.9	3.3
$100 per individual	54.4	47.1	43.1
$101 to $149 per individual	0.4	1.2	1.3
$150 per individual	3.9	7.8	11.9
Over $150 per individual	3.0	11.4	16.7
Average individual deductible	$90.92	$110.23	$122.94
Average family deductible	$215.54	$263.57	$295.50
Percentage with other basis for a deductible	3.9%	8.5%	7.0%
Percentage with no deductible	3.0	1.3	2.2
COINSURANCE RATE:			
Percentage of participants with coinsurance	97.1%	100.00%	99.9%
Percentage in which:			
Plan pays more than 80% initially	10.5	12.3	12.7
Plan pays 80% initially	85.9	86.5	85.9
Plan pays less than 80% initially	0.7	1.2	1.2
Average initial coinsurance rate	81.04	81.05	81.02

Percentage with no coinsurance	2.9	0.0	0.1
STOP LOSS:			
Percentage of participants with stop-loss coverage	57.4	77.2	78.4
Percentage with stop-loss thresholds of:			
$1–$2,000	9.7	11.2	11.3
$2,001 to $4,000	13.9	20.3	20.6
$4,001 to $6,000	20.4	25.4	25.8
More than $6,000	13.6	20.3	20.6
MAXIMUM BENEFITS:			
Percentage with no dollar maximum	14.4	17.7	19.3
Percentage with lifetime dollar maximum**	80.7	77.7	77.8
Percentage with maximum of:			
Less than $250,000	32.5	16.2	18.1
$250,000	30.2	23.8	24.7
$250,001–$1,000,000	18.1	37.5	56.6
More than $1,000,000	0.0	0.2	0.6
Average lifetime maximum benefit	$291,558	$475,939	$526,220
Percentage with maximum dollar limit of another sort	4.9	4.6	2.9

Notes: *This percentage does not include participants with annual deductibles that were based on earnings. About 5 percent of participants in each year had an earnings-based deductible.

** About 5 percent of subscribers in these years had both a lifetime maximum benefit and a dollar limit of another sort. If another limit was present, it was typically a dollar maximum per year.

Self-funded firms were most likely to require cost sharing for hospital care. Of persons in self-funded plans, about 60 percent faced initial cost sharing, whereas only 26 percent of those with Blue Cross/Blue Shield coverage did. Of commercial plan subscribers, one-half faced cost sharing for a hospital stay.

About nine out of every ten subscribers in 1985 had major medical benefits covering most categories of medical expenses. This proportion remained quite stable over the five-year period.

Table 6 describes major medical provisions in 1981, 1984, and 1985. Although our reported provisions relate specifically to physician office visit coverage, they were usually the provisions that applied to other categories of care under major medical. The main exceptions were mental health care, treatment for alcohol or drug abuse, and care delivered in a nursing home where separate internal limits usually applied.

Major medical nearly always stipulates both a deductible and coinsurance. Deductibles have increased, but not by as much as one might expect. The average deductible per individual in 1981 was $90.92 per year, in 1985 it was $122.94. In real terms, however, the rise was quite small. If we adjust for inflation on the basis of changes in the Consumer Price Index (CPI), then the average deductible rose by only $15.40 per person (in 1985 dollars). The average family deductible rose by $36.11 (in 1985 dollars). If instead we measure inflation by changes in the medical care price index component of the CPI, then the average individual deductible actually fell by $1.51, and the family deductible increased by only $0.48 (in constant 1985 dollars). It is unclear as to which adjustment method is more appropriate. With either method, however, the message is the same: In real terms, initial cost-sharing provisions in major medical plans are about as generous today as they were in 1981. Deductibles are still relatively low.

Coinsurance requirements are virtually unchanged from what they were in 1981. An 80/20 percent copayment scheme continues to be the rule. Only one out of a hundred enrollees has to pay more than 20 percent.

Far more major medical plans now have a stop-loss provision: When covered expenses reach a certain threshold, the plan covers additional expenses in full, thus limiting the enrollee's out-of-pocket costs. In 1981 only 57 percent of enrollees had stop-loss coverage. In 1985 more than three-quarters had it. The data suggest that many of the

firms that added this provision choose relatively low stop-loss levels. For example, in 1981, 9.7 percent of enrollees had a stop-loss level of $2,000 or less, and 13.9 percent had a stop-loss of $2,001 to $4,000. In 1985 there were 11.3 percent of enrollees in the $2,000 or less category and 20.6 percent with a stop-loss of between $2,001 and $4,000.

Maximum lifetime benefits are also up significantly. More enrollees have no upper limit on benefits, and those that do have much higher levels of protection. The average lifetime dollar maximum nearly doubled. In 1981 it was $291,558, whereas in 1985 it was $526,220. The change can be attributed to a recent trend in adopting a $1 million maximum rule. Many plans now set this as the overriding limit on the benefits paid to any subscriber. If the subscriber's cumulative claims while in the plan exceed this limit—e.g., due to chronic serious illness—then benefits cease and he or she is liable for all additional medical bills.

Discussion

Our examination of changes in the health insurance benefits offered by medium and large firms makes it clear that the common view of employers is misshapen. Most firms are not aggressively restructuring workers' insurance plans in ways known to result in more cost-effective use of medical care. Some certainly are but collectively benefits have expanded in most respects. Nationally representative BLS data show that the breadth of covered services was much greater in 1985 than in 1981, stop-loss coverage was more common, and lifetime benefit limits rose substantially. Deductible and premium-sharing provisions were increased, but in inflation-adjusted terms the changes were modest at best. Although some of the new coverages are in alternative settings to hospitals—e.g., extended care facilities, hospices, and home health care—it remains an open question as to whether these benefits are really substitutes for hospital care coverage or simply "add-ons" (Dranove 1985; Hammond 1979). If subscribers utilize services in these settings as a substitute for convalescence at home, then health benefit costs will rise as a result. The one clear encouraging note for cost containment is a trend away from "complete" hospital coverage. In 1985 one-half

of all subscribers faced some form of initial cost-sharing for hospital care, up from one-third in 1981.

There has been a remarkable increase in the use of self-insurance as a vehicle to provide health benefits. For the employer, self-funding serves to avoid premium taxes and requirements to offer particular coverages in otherwise mandated areas. Another consequence may possibly be a willingness to take greater steps at cost containment, because the firm bears more financial risk than if it purchased coverage. Self-funded plans in our data less often contained "complete" hospital coverage and more often contained higher deductibles under major medical, two findings consistent with this conjecture. From a societal perspective the latter consequence holds more value in controlling medical costs. (For a more detailed comparative analysis of self-insured plans, see Jensen and Gabel 1987.)

Recently released 1986 EBS data show a continuation of the trends reported here (U.S. Bureau of Labor Statistics 1987). The incidence of coverage for chemical dependency treatment, extended care services, home health and hospice care, vision, dental, and hearing care, and physical exams increased from 1985 levels. Stop-loss coverage spread to 80 percent of participants, and lifetime benefit limits rose as well. Deductibles increased slightly, however; $100 per year continues to be the most common provision (as it has been for every year since 1979). About 8 percent of subscribers had two-part basic major medical coverage in 1985 replaced with free-standing major medical coverage. More firms converted to self-insurance as well.

Our data did not contain measures of utilization-review initiatives or enrollment in preferred provider organizations (PPOs). Although many insurers have begun to add various forms of utilization review to their plans (Gabel et al. 1987), there is, as yet, scant evidence that such programs are cost effective. While they may be useful in remedying grossly inappropriate applications of medical resources (too much or possibly too little), they are probably not effective at altering utilization for the majority of patients with close-to-average use patterns, who account for most claims. The 1986 EBS indicates that PPOs, classified separately for the first time, accounted for a mere 1 percent of insured participants (U.S. Bureau of Labor Statistics 1987). Employers' evident reluctance to set up PPOs reinforces our conclusion that they are not serious about cost containment.

An obvious question raised by our findings is why employers haven't

done more. The answer, we believe, has to do with the way employee compensation is determined and the workings of the tax laws. In a competitive labor market, an employer can only reduce health benefits if those reductions are offset with higher wages and/or other benefits that leave workers as well off as before; otherwise, dissatisfied workers will move to new jobs elsewhere in their industry. Herzlinger and Schwartz (1985) note that employers are well aware of this: "Any perception of cuts in health benefits will be met with demands by workers that they be 'made whole'." From the firm's standpoint, however, reductions in coverage must produce enough premium savings to pay for the offsetting increases in other components of compensation; otherwise, the total cost of compensation will rise. Self-insurance has been so popular because it often satisfies this dual "Pareto-improvement" condition. Benefits need not be cut, and the firm saves on the premium tax. Other innovations that lower benefit costs are less likely to be acceptable to both sides. Lowering the employer's contribution toward premiums, for example, or increasing cost sharing at the point of purchase requires that wages and/or other benefits increase. Our data suggest that the indirect costs of reducing insurance coverage may be simply too high for most firms. Workers apparently value a very generous insurance benefit, and so employers provide it. Workers' preference for generous coverage arises in large part from the tax-exempt status of employer-sponsored insurance. The exemption of premiums from payroll-based taxes distorts the price of insurance, relative to other goods purchased out of wages. It lowers the implicit price since taxes need not be paid on the premium, thereby encouraging a strong preference for comprehensive insurance.

Two recent events may influence the level of health insurance chosen by employers and their employees over the next few years. First, the 1986 tax reform act lowers the tax rates faced by individuals and eliminates much of the progressivity in rates. New, lower marginal tax rates raise the implicit price of insurance by lowering the size of the discount imparted through the tax subsidy. In response to the price increase, employees may prefer less comprehensive insurance, which could take the form of increased cost sharing.

Second, and offsetting the effect of lower tax rates, is a recent change in the tax status of workers' contributions to premiums. In May of 1984 the Internal Revenue Service (IRS) issued a new ruling affecting group insurance plans. The IRS ruled that employees' premium

contributions could be paid with pretax dollars by making salary reduction agreements with their employer or by setting up so-called "flexible spending accounts" (FSAs). With an FSA, employees can set aside part of their gross income each month, untaxed, and use it to pay their health insurance premium contributions and out-of-pocket medical expenses. The amount set aside must be determined in advance; it cannot be changed during the year. If not spent by the end of the tax year, the employee loses whatever funds remain in the account. As Alain Enthoven (1985) has noted, salary reduction programs and FSAs, when used to pay premium contributions, effectively raise the tax subsidy for insurance. Because they enable workers to tax-shelter their share of the premium, they raise the size of the implicit premium discount on employment-based insurance. With an FSA, workers get a discount fully equal to their marginal tax rate on wage income, more than they would get without the FSA (provided of course, that a contribution is required). In 1986, 14 percent of employees required to contribute toward their health insurance premium could do so through an FSA (U.S. Bureau of Labor Statistics 1987). We expect that as more employers learn about these accounts, they will begin to set them up. Whether the price decreases brought about through FSAs will more than offset the price increases brought about by lower marginal tax rates is debatable. If the net effect is an increase in the subsidy for most employees, health insurance coverage will expand even more.

All of this leaves us rather doubtful about employers' potential role in controlling health care costs. If they are to be successful, one of two things must happen. First, it must be convincingly demonstrated that actions that employers can take will indeed reduce the cost of their total compensation package. Showing, for example, that HMOs or PPOs are less costly than traditional delivery systems is not enough: lower total compensation cost to the employer is the relevant decision variable.

Alternatively, the underlying incentives facing employers and employees can be changed to stimulate the emergence of plans with higher deductibles and larger coinsurance rates. As a matter of both theory (Pauly 1968) and experience (Manning et al. 1987), we know that greater cost sharing at the point of purchase lowers medical expenditures markedly. Altering the tax treatment of employer-paid premiums would be the most useful step the government could take

to encourage the redesign of insurance benefits. While the actual form of cutbacks in coverage stemming from a change in tax deductibility is difficult to gauge (Pauly 1986), our data tend to suggest that reductions would come in those areas where they would be especially beneficial: elimination of first-dollar coverage for hospital care and increased deductibles under major medical. Although small, the reductions in coverage that employers made between 1981 and 1985 occurred in these two areas.

It is time to reconsider what the government can do to foster greater private-sector cost-control initiatives. Various mechanisms to limit the federal tax subsidy for employer-provided health insurance should be reexamined from a perspective of their differing abilities to motivate desirable changes in coverage. Most analyses of tax policy alternatives (e.g., Wilensky and Taylor 1983; Phelps 1982; Enthoven 1984; Jensen 1985; and Chernick, Holmer, and Weinberg 1987) have not given this issue enough attention, nor made full use of available data. We believe that, if provided with stronger incentives for restructuring benefits, employers and employees could prove to be a potent force in containing health care costs. Without a change in policy that spurs them to act, however, the "silent majority" of purchasers will continue to pay only lip service to the concept of cost containment.

Appendix: Data and Methods for Computing Estimates

In most cases we report the percentage of workers covered by a specific feature of health insurance among all full-time nonexecutive workers with health insurance coverage. By using the worker rather than the firm as our unit of analysis, we describe how coverage has changed for a large segment of the United States population. If, instead, coverage were described by tabulating the percentage of firms offering particular features, trends might look very different from what we report here because the distribution of firms by size is skewed toward smaller-sized firms whereas the distribution of workers by size of the employing firm is skewed toward larger-sized firms. Since most persons work in larger than average-size firms, our data are more representative of coverage in large firms.

The health insurance data collected in each survey include information

on employee premium contributions for each plan offered; each plan's funding media—i.e., whether it was self-funded by the employer, or if not, the type of insurer sponsoring the plan; whether various categories of care were covered by the plan; the specific cost-sharing provisions (e.g., the deductible, coinsurance rate, etc.) applicable to each category of covered services; and the number of workers enrolled in each plan. U.S. Bureau of Labor Statistics field workers visited each sampled establishment to gather the data and obtained the ERISA booklets describing the specific provisions of each plan offered by the employer. Information from these booklets was then coded by the Bureau of Labor Statistics staff. For each responding firm, data were collected separately for three broad occupational groups within the class of fulltime nonexecutives: professional and administrative, technical and clerical, and production workers.

Our statistics on the percentage of workers with various health insurance traits are unbiased estimates of population percentages, the population being all workers within the scope of the survey. For every statistic, we first produced national estimates for each of the three occupational classes covered by the survey. Estimates for all employees were then derived by aggregating the estimates for the three occupational groups. Employment in each group was used to determine the relative weight to assign to each occupation-specific estimate. Since each year's sample was stratified by industry and establishment size, we used a Horvitz-Thompson estimator for population percentages within each occupational group, which adjusted for both the stratified sample design and possible nonresponse bias (Cochran 1977). The estimator's general form was

$$P = \left(\sum_{i=1}^{n} f_i X_i \Big/ \pi_i\right) \Big/ \left(\sum_{i=1}^{n} f_i Y_i \Big/ \pi_i\right)$$

where π_i is the probability that firm i was included in the sample (of size n), f_i is a weight-adjustment factor for nonresponses in firm i's stratum, X_i is the number of employees in firm i with the particular insurance trait of interest, and Y_i is the number of employees with health insurance in that firm. For a detailed description of strata definitions, sample size by stratum, adjustment methods for nonresponse, and other aspects of the survey and our estimation methods, see U.S. Bureau of Labor Statistics (1982–1987) and Gilliland (1985).

Because the numbers we present are derived from a sample of establishments, rather than based on the entire population of all medium and large firms, they are subject to sampling error. The standard errors of our percentage estimates are quite small, however, due to the survey's large size and its stratified sampling design. As with any percentage estimate, the standard error is smallest for percentage estimates close to the extremes (either zero or 100) and highest for estimates in the neighborhood of 50 (Cochran 1977). For our data, the maximum standard error is approximately 1.8 percentage points. For estimates above or below this 50 percent, the standard error is smaller. Approximate standard errors for different percentage values are as follows: 1.6 percentage points for estimates of 67 or 33 percent, 1.5 for estimates of 80 or 20 percent, 1.2 for estimates of 90 or 10 percent, 0.8 for estimates of 95 or 5 percent, and 0.4 for estimates of 98 or 2 percent. For percentages other than those listed here, interpolation will produce an approximate estimate of standard error (also, see U.S. Bureau of Labor Statistics 1982–1987).

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