Private health insurance: New measures of a complex and changing industry

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Private health insurance benefit payments are an integral component of estimates of national health expenditures. Recent analyses indicate that the insurance industry has undergone significant changes since the mid-1970's. As a result of these study findings and corresponding changes to estimating techniques, private health insurance estimates have been revised upward. This has had a major impact on national health expenditure estimates.

This article describes the changes that have occurred in the industry, discusses some of the implications of those changes, presents a new methodology to measure private health insurance and the resulting estimate levels, and then examines concepts that underpin these estimates.

Introduction

The private health insurance estimates prepared in conjunction with the national health expenditure estimates have undergone a major revision. The need to reexamine the private health insurance estimates became apparent during an investigation of changes in the taxation of employer-sponsored health insurance. The aggregate amount of employer contributions was being reviewed because it determines the magnitude of the impact on Federal revenues for both the proposed cap on employer contributions and proposals to permit widespread use of flexible spending accounts in cafeteria plans.

Comparisons with other independent measures indicated that the previous Health Care Financing Administration (HCFA) estimates were too low. For example, the proportion of personal health care expenditures for hospital care and physicians' services paid for by insurance was decreasing in the national health expenditure accounts (Gibson, Waldo, and Levit, 1983). This decline seemed unreasonable because it occurred during a time when the proportion of population covered by insurance remained constant. Furthermore, the level of benefits continued to increase, because deductibles and out-of-pocket limits tend to be fixed in dollar terms.

The examination disclosed that important components of the industry, previously excluded from the estimates on the grounds that they would cause double counting, were, in fact, not duplicative. The principal items omitted were the "administrative services only" and "minimum premium plan" premiums of insurance companies. In addition, provisions were made for new components of the industry which were not previously estimated. An example is an emerging form of insurance administration known as "third-party administrators."

An approach was developed that incorporated these considerations and reflected the new data sources, improvements in estimating techniques, and a revised conceptual framework for the estimates. The result was to increase the 1982 benefit levels by approximately 19 percent, with a $14.2 billion dollar increase in total benefits, from $76.6 billion to $90.8 billion. The revised approach affects estimates back to 1975 and is implicit in the new 1983 estimates.

This article discusses the new methodology for measuring private health insurance, and summarizes the results of the revised approach. Also examined are health insurance concepts such as: administration, risk, regulation, provider choice, and others. The final section presents a summary of the findings and points out the need for further research in this area.

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New estimates of private health insurance

Industry changes

Several fundamental changes have occurred during recent years in the financing and administration of private health insurance plans. Insurers increasingly provide administrative services only for many employer health insurance plans, and they no longer bear any of the risk.[1] For many other employers, contracts have been split into self-funded and insured portions, with the insurer providing protection that is equivalent to a traditional insurance plan.[2] Other employers self-insure, but they obtain protection against catastrophic level of claims. This type of insurance is variously referred to in the industry as excess-loss insurance, stop-loss insurance, or reinsurance. It will be referred to herein as excess-loss insurance.

These changes occurred at a time when large numbers of employers were converting insurance contracts into some form of self-insurance or self-funding. Here

[1]The primary example is administrative-services-only (ASO) contracts, a contract to provide self-insured plan services such as actuarial support, benefit plan design, claims processing, data recovery and analysis, employee benefits communications, financial advice, medical care conversions, and preparation of data for reports to governmental units. A similar contract form offered by Blue Cross and Blue Shield is the administrative services contract (ASC).

[2]The insurance companies refer to these arrangements as "minimum premium plans," a combination approach to funding an insurance plan that is aimed primarily at premium tax savings. The employer self-funds a fixed percent of the estimated annual claims, and the insurance company insures the excess over those anticipated on the basis of actuarial projections.

"self-insurance" refers to the assumption by an employer, union, or other group of all or most of the risk of claims for a policy year. "Self-funding" refers to the payment of claims from an employer bank account or a trust established for the purpose. Whether a self-funded plan is also self-insured depends on whether arrangements are made to transfer risk to another party through an insurance contract. Self-insurance and self-funding offer several advantages to employers. Self-insured plans are exempted from State regulation by Federal legislation in the Employee Retirement Income Security Act of 1974. Hence, State laws mandating coverage of specific facilities (such as alcohol treatment facilities), practitioners (such as podiatrists, chiropractors, or clinical psychologists), or therapy (such as outpatient psychiatric care) do not apply. The potential advantages of self-funded plans are to avoid most premium taxes, permit employers access to the claim reserves for business use, and obtain tax-free interest on reserves.

The trends to self-insurance and self-funding provided new market opportunities for independent management companies, called "third-party administrators" (or TPA's), and these companies have claimed a substantial portion of the market share.[3] Other significant changes have been the growth of health maintenance organizations (HMO's) and other alternative health systems, including preferred provider organizations (or PPO's) and "cafeteria plans." All of these changes fundamentally affect the division of risk between employers and insurers, the responsibility for determining the amount to be reimbursed, and other important aspects of insurance arrangements.

Review of prior methods

Previous HCFA private health insurance estimates were based on three principal data sources: the Blue Cross Association and Blue Shield Association (the Blues), the Health Insurance Association of America (HIAA), and the Survey of Independent Prepaid and Self-insured Health Plans conducted each year by HCFA. These sources continue to be available. The Blues provide estimates for the national totals for Blue Cross/Blue Shield financial coverage and enrollment data.[4] HIAA provides similar estimates for insurance company regular business and, since 1978, for administrative-service-only (ASO) contracts and minimum-premium-plans (MPP) business. These estimates are based on an annual sample survey conducted with insurance companies writing health insurance. The results from their regular business survey are controlled to totals compiled from annual statements filed with State insurance departments.[5] Finally, the HCFA Survey was designed to cover the rest of the health insurance industry. Surveyed are self-insured employer and union plans, and prepaid plans such as HMO's, and dental and vision plans.

Many of the problems with the previous estimates are associated with the treatment of independent plans and, in particular, with proper measurement of self-insured plans. The HCFA Survey of independent health plans has been conducted each year since 1942. This annual Survey is benchmarked to periodic census measures of the independent plan universe. The last census was conducted in 1978 for 1977 data.

Recent evaluation of the process suggested two general shortcomings. First, the universe of independent plans was incomplete, because virtually all of the labor management plans in the census are self-insured and self-administered. Plans which are self-insured but administered by a third party, an insurance company, Blue Cross or Blue Shield Plan, or a TPA, were found to be largely missing from the data base. Second, no method existed to measure annual changes in the number of new independent plans in the universe. These problems are especially serious because, according to data from HIAA, a large proportion of participating experience-rated plans insured by commercial insurers were converted to ASO or MPP during this period. ASO and MPP estimates became available in 1978. However, they were not included in the private health insurance estimates because they were thought to duplicate the HCFA Survey estimates of self-insured plans.

In addition to ASO's and MPP's, the TPA's were growing rapidly. Hundreds of TPA firms have been identified, though only a few of these were in operation in 1975. Finally, new developments have led to a rise in the number of self-administered plans. Notable among these developments is the availability of time-shared software and specialized consultants to assist plan administrators.

The result of the incomplete and fixed sample frame for surveys conducted in 1978 and later years was a downward bias in the estimate of self-insured plans. In fact, no TPA administered plans were surveyed, and relatively few ASO or MPP plans were included in the sample frame. In addition, the fixed sample frame did not allow for a growth in the number of self-administered, self-insured plans. These findings were revealed by a special survey of the 66 self-insured plans included in the annual HCFA Survey. Only two had an ASO arrangement and none used a TPA. The plans were also asked about their administration in 1977, the census year, and the responses were the same.

[3]Third-party administration involves independent management companies (not insurers) that maintain all records regarding persons covered under an insurance plan, prepare drafts for claim payments from an employer or trust bank account, maintain statistical data concerning claim payments, and may provide other services needed to manage a self-insured plan.

[4]These data include regular business and cost-plus contracts (equivalent to insurance company minimum premium policies), and exclude administrative service contracts.

[5]Insurance company health and accident information is tabulated by the National Association of Insurance Commissioners and reported in the *Argus Health Chart*, published by The National Underwriter Company.

Table 1

Revised and previously published private health insurance estimates for premiums[1] and benefits, and difference: United States, selected years 1965-83

Year	Revised estimates		Previous estimates		Difference	
	Premiums	Benefits	Premiums	Benefits	Premiums	Benefits
	Amount in billions					
1965	$10.0	$8.7	$10.0	$8.7	$0.0	$0.0
1970	16.9	15.3	17.1	15.6	−.2	−.3
1975	33.2	31.2	32.4	30.1	.8	1.1
1976	40.4	37.6	38.2	35.5	2.2	2.1
1977	48.0	43.0	44.6	40.0	3.4	3.0
1978	53.6	49.1	49.7	45.0	3.9	4.1
1979	62.0	56.9	55.9	50.2	6.1	6.7
1980	72.5	67.3	63.6	57.0	8.9	10.3
1981	84.8	78.8	73.2	66.8	11.6	12.0
1982	99.3	90.8	84.2	76.6	15.1	14.2
1983	110.5	100.0	—	—	—	—

[1]Premiums refer to the premiums of insurance companies, the subscription income of the Blues, and the Sum of benefit and administrative expenses and interest income for independent plans.

Revised methodology

The primary information gaps cited above are that neither the HIAA nor the HCFA estimates of self-insured plans are complete measures of self-insurance. Each measures a different type of self-insured plan: HIAA measures those that are administered by insurance companies, and HCFA those that are self-administered. In addition, neither includes still another type of self-insured plan, namely those administered by TPA's. As noted, the previous methodology used only the HCFA Survey results to avoid presumed double counting. The conclusion from current studies is that data from both HIAA and the HCFA Survey should be used as the basis for estimates of their respective components of self-insured plans. In addition, a measure of the TPA self-insured plans is needed.

The data needed to make the ASO and MPP changes were available from HIAA. Information on third-party administrators were not readily available, and an estimation procedure had to be developed for these new measures of private health insurance. The estimates are an amalgamation of information from a variety of sources, principally from *Business Insurance,* a weekly trade journal, and from Temple, Barker, and Sloane, Inc., an industry management and consulting firm.

Business Insurance conducts an Annual Survey of Third-Party Administrators (Cain, 1984). The information reported includes the total number of claims administered for all firms and for self-insured firms and the proportion of claims that were for health insurance. Also included are estimates of gross revenues and total staff.

Additional information is available for some TPA's from a survey by Temple, Barker, and Sloane that was used to supplement the *Business Insurance* list of TPA's (Moore, 1984). This information includes estimates of total health insurance claims paid, the staff devoted to paying claims, and the dollar volume of health claims paid. TPA's administer claims for many entities, including self-insured plans, insurance companies, associations, and prepaid plans. The TPA estimates are for the administration they provide for self-insured plans only.[6] From all sources, information was available for 137 TPA's serving the health insurance industry. Since many more TPA's are known to exist, these estimates should be considered preliminary and most likely as a lower bound of the actual level.

Findings

Table 1 shows the effect of the private health insurance revisions. The 1982 levels for insurance are substantially higher than those previously published. The increases are partially the result of new information, especially preliminary estimates of TPA business. However, the major source of revision stems from the new interpretation of self-insured and insurance company data as it relates to the ASO and MPP data. Part of the increase was offset by eliminating "auxiliary" coverages, for reasons discussed later in the article.

The effects of using different accounting frameworks to analyze private health insurance from a variety of perspectives is illustrated in Tables 2 and 3. Shown are benefit payments in selected years according to who administers the insurance and separately by who is at risk. Though total private health insurance benefits are the same in both classification systems, the detail in the two tables shows distinct differences between the two measures. The Blue Cross and Blue Shield and the prepaid plan totals are the same under both frameworks. However, the market shares for insurance companies and self-insured plans vary greatly from one system to the other. Under the administrative framework, their market shares are essentially unchanged over time. Insurance companies,

[6]TPA's also serve prepaid plans, but no split is available for the amount of claims processed under these arrangements. This split would provide a more accurate accounting for the level of TPA's under a framework showing who administers plans. The increase in the TPA total would be offset by a reduction in the prepaid plan total (see Table 4).

Table 2

Private health insurance benefit payments and percent of market share, by type of insurer who administers: United States, selected years 1965-83

Year	Private health insurance	Insurance companies: Total	Individual policies	Group policies	Minimum premium plans	Administrative service only	Blue Cross and Blue Shield	Self-insured, self-administered	Third party administrator	Prepaid health plans[1]
					Amount in billions					
1965	$8.7	$4.2	$.8	$3.4	$0.0	$0.0	$3.9	$0.4	$0.0	$0.2
1970	15.3	7.2	1.0	6.1	0.0	0.1	7.1	0.5	0.0	0.5
1975	31.2	14.1	1.3	11.3	0.2	1.3	14.2	1.5	0.2	1.2
1980	67.3	31.2	2.2	18.1	5.2	5.7	25.5	5.5	1.5	3.6
1981	78.8	36.9	2.6	19.8	8.3	6.2	29.2	6.3	2.0	4.4
1982	90.8	43.6	3.2	21.8	12.1	6.5	32.2	7.0	2.7	5.3
1983[2]	100.0	48.0	3.1	23.8	14.3	6.8	35.2	7.7	3.0	6.1
					Percent of market share					
1965	100	48	9	39	0	0	45	5	0	2
1970	100	47	7	40	0	1	46	3	0	3
1975	100	45	4	36	1	4	46	5	1	4
1980	100	46	3	27	8	8	38	8	2	5
1981	100	47	3	25	11	8	37	8	3	6
1982	100	48	4	24	13	7	35	8	3	6
1983	100	48	3	24	14	7	35	8	3	6

[1]Health maintenance organizations and others.
[2]1983 values are preliminary projections based on partial data.

Table 3

Private health insurance benefit payments and percent of market share, by type of insurer who is at risk: United States, selected years 1965-83

Year	Private health insurance	Insurance companies: Total	Insurance companies: Individual policies	Insurance companies: Group policies	Insurance companies: Minimum premium plans	Blue Cross and Blue Shield	Self-insured health plans: Total	Self-insured health plans: Administrative service only	Self-insured health plans: Self-administered	Self-insured health plans: Third party administrator	Prepaid health plans[1]
						Amount in billions					
1965	$8.7	$4.2	$.8	$3.4	$0.0	$3.9	$0.4	$0.0	$0.4	$0.0	$0.2
1970	15.3	7.1	1.0	6.1	0.0	7.1	0.6	0.1	0.5	0.0	0.5
1975	31.2	12.8	1.3	11.3	0.2	14.2	3.0	1.3	1.5	0.2	1.2
1980	67.3	25.5	2.2	18.1	5.2	25.5	12.7	5.7	5.5	1.5	3.6
1981	78.8	30.7	2.6	19.8	8.3	29.2	14.5	6.2	6.3	2.0	4.4
1982	90.8	37.1	3.2	21.8	12.1	32.2	16.2	6.5	7.0	2.7	5.3
1983[2]	100.0	41.2	3.1	23.8	14.3	35.2	17.5	6.8	7.7	3.0	6.1
						Percent of market share					
1965	100	48	9	39	0	45	5	0	5	0	2
1970	100	46	7	40	0	46	4	1	3	0	3
1975	100	41	4	36	1	46	10	4	5	1	4
1980	100	38	3	27	8	38	19	8	8	2	5
1981	100	39	3	25	11	37	18	8	8	3	6
1982	100	41	4	24	13	35	18	7	8	3	6
1983	100	41	3	24	14	35	18	7	8	3	6

[1]Health maintenance organizations and others.
[2]1983 values are preliminary projections based on partial data.

for example, ranged from 45 to 48 percent of the total market; self-insured plans, with one exception, ranged from 5 to 8 percent. Under the risk measure, the change from 1965 to 1980 for both sets of plans has been considerable.

An examination of the self-insured category discloses that, in the aggregate, self-insured, self-administered plans have not grown rapidly over time. These are primarily union and large employer plans that were established before the advent of ASO- and MPP-type arrangements. Although only anecdotal information is available, the newly self-insured plans are mid-sized firms. Self-insurance by such firms is made feasible by markets that supply administrative services and protection against catastrophic insurance. On the other hand, the advantages of self-insurance to employers has led to a rapidly increasing demand for these services. Minimum premium arrangements have extended these advantages to a broader scope of firms while providing insurers a competitive line of business. Whether companies wished to self-insure, and stimulated insurers to meet this change with new products, or whether the new products, such as ASO and MPP, encouraged the move to self-insurance is difficult to determine. As with most questions of cause and effect, the phenomenon was probably some of both. Clearly, the increasing importance of employee benefit packages, because of their costs, is a factor behind both supply and demand of these services. Third-party administration, however, seems to be a clear response by entrepreneurs to fill a demand made by those wishing to self-insure.

The main point is that most new self-insurance is associated with at least some form of outside administration. Hence, under the administrative classification, self-insurance shows little change in market share. However, many of those who self-insure bear full risk for their plan members. Thus, self-insurance as measured by risk has more than twice the market share as when measured by administration.

Private health insurance concepts

Definitional scope

Private health insurance is defined here as insurance that pays for the costs of preventing, diagnosing, or treating an accident, illness, pregnancy, or other health condition requiring medical related services. The definition of health insurance is limited to benefits that are payable contingent on the provision of a medical service, where the service indicates the presence of a health condition.

This article excludes those classes of insurance in which payment is not contingent on the provision of medical services, though these are forms of insurance that are legally classified as "accident and health" insurance. Among such excluded insurances are: sick leave or short-term disability, which replaces income lost as the result of a temporary illness; long-term disability, which protects against the risk of an indefinite loss of employment as a result of a health condition; and accidental death and dismemberment, a combination of accidental death insurance and presumptive disability (on the basis of a loss of sight or limb). These coverages have in common that they protect the insured against a loss of income attributable to illness, rather than to provide income intended (at least in concept) to cover the cost of caring for an illness. Although the loss of income is an important component of the cost of illness, it is not considered within the scope of health insurance as discussed in this article or for the data presented in the national health expenditures article.

Reimbursement health insurance is the most common form of health insurance. It is designed to either pay providers directly for the cost of providing medical services or to reimburse patients directly for their outlays. Benefits are contingent on the occurrence of the specified medical services for which there is a charge. Patients are normally responsible for deductibles, copayments, coinsurance, and differences between the amounts charged and the limits on reimbursement (for example customary and prevailing charges).

An alternative to the reimbursement form of insurance is auxiliary coverage. Among the oldest health insurance policies written are "indemnity" coverages, which pay a fixed fee contingent upon a particular medical event (for example, $50 per day confined in a hospital, $75 if an appendectomy is performed, etc.). These auxiliary policies have been largely replaced by more comprehensive reimbursement coverages, especially major medical insurance which reimburses the actual cost of most hospital and medical services.

Traditional classifications

As described earlier, private health insurance has traditionally been classified into three categories. The two principal categories have been the Blue Cross and Blue Shield Plans and "commercial" insurers, that is, those regulated as insurance companies by State insurance departments.[7] The third category, independent plans, consisted of all other private health insurers, including self-insured employer plans, union plans, HMO's and similar organizations, and single service plans (for example, Delta Dental).

Administrative-services-only plans and minimum-premium plans were classified as independent health plans. This was consistent with the distribution of risk as defined by the insurance industry, that is, in terms of responsibility for funding the claim payments (the expected outlays of the insurer and employer). However, the traditional classification does not reflect the bearing of risk in terms of an open-ended liability for unexpectedly high-claim payments, because with MPP's the insurer bears the risk in this sense.[8]

[7]In some States, Blue Cross and Blue Shield Plans are also regulated as insurance companies through State insurance departments.
[8]In most cases, the insurance is on a participating-experience-rated basis. In these cases, it is more precise to say that the insurers bear the risk that an employer will cancel with an accumulated deficit.

Although the ASO and MPP plans were defined as independent health plans, estimates of them were not included in prior estimates to avoid presumed double accounting.

Recent developments affecting classification

During the past decade, the insurance industry has undergone major changes that affect the proper interpretation of industry data and the adequacy of the principal data sources. These developments have also changed the features of the plans that are most important for industry analysis. As a result, the estimating methods previously used have become biased through omitting important and rapidly growing segments of the industry. The most important of the omitted segments are administrative-services-only contracts, minimum premium plans, and plans administered by third-party administrators.[9]

Changes in the industry have also rendered the classifications previously used inappropriate for analysis. Questions increasingly relate to the organization of the medical system, especially as to the choice of providers available to patients and restrictions on their use. These are the principal tools of alternative health plans in controlling cost and utilization. They are crucial to the design and operation of competitive systems. Taxation, especially as it affects employee ("fringe") benefits, and regulation are also receiving increased focus. Among the changes already noted are: a move towards self-insurance; a shift by insurance companies to providing administrative services, rather than insurance, as the primary service offered to large employers; the rise of third-party administrators; conversion of a large proportion of the remaining insured plans to minimum premium arrangements; and the increasing complexity in the industry, including competition among plans and also cafeteria plans with "flexible spending accounts".

Other changes have also tended to blur the importance of some of the traditional classifications used to characterize the insurance industry. The similarity between the Blues and other insurers is growing. In fact, nine of the Blue Cross and Blue Shield plans have converted to a mutual ownership status, and many own for-profit insurance subsidiaries which are regulated by State insurance departments. Both the Blues and the insurance companies now offer similar products in direct competition that differ more from product line to product line than between these two types of insurers. The remaining distinctions between the two relate primarily to taxation, regulation, and market share. The latter allows Blue Cross plans to obtain substantial discounts from hospitals in many States and exempts them from the premium tax in most States. Because of the similarity between the Blues and the commercial companies, a few States make no distinctions between them.

The past decade has also been marked by the growth of group model and independent-practice-association (IPA) type HMO's and by the emergence of a number of new types of organized health systems. Notable among the new systems are the preferred provider organizations and the HMO-like provider organizations contracting to provide Medicaid services in States with capitation demonstration programs. For example, all Medicaid services in Arizona are now provided through competing capitated health plans. Only a few of these plans are Federally qualified as HMO's.

Cafeteria plans with flexible spending accounts are a further complication to classifying insurance plans. Cafeteria plans offer employees choices among health insurance coverages, usually involving a trade-off between other employee benefits, including additional wages in some cases. Flexible spending accounts (FSA's) are a recent innovation which allow employees to recharacterize wages as medical care reimbursement (formerly a salary reduction), thereby saving taxes. Current regulations for new plans require employees to set aside the dollars to be recharacterized in advance of the receipt of services, and to forfeit any unused amounts. To the extent that the sums set aside may be forfeited, these amounts should be considered to be health insurance. Sums set aside are a prepayment for health coverage and forfeited amounts are similar to paying a premium and then not needing health care services.

FSA plans in existence or planned in January 1984 may continue to permit salary reductions through 1985 to pay for health care services without forfeiting benefits. They may be used to fund other tax preferred benefits, such as pensions. Although these benefits are prepaid, they do not represent insurance, but resemble more a direct payment funded by the withdrawal of cash from savings. Some existing plans permit retroactive recharacterization of wages as medical reimbursement. These plans are referred to as zero balance reimbursement accounts, or "Zebras." These amounts should not be considered health insurance, since no prepayment occurred. While not yet a large dollar item, FSA's are expected to grow rapidly during the next decade, if favorable tax treatment is extended.

Alternative classifications

The health insurance industry has become highly complex. Traditionally, risk-bearing was considered the most important feature. In recent years, however, market share has become increasingly associated with the administrative responsibility, because this function accounts for a much larger portion of insurer net income than the provision of insurance, and employs more people in the industry. Analysts may wish to follow trends in administration or changes in regulations or restrictions to the choice of provider. Some

[9]A small number of TPA and insurance company administered plans were included in past estimates. However, the number included was less than that of the self-administered, self-insured plans omitted.

of the most important of these aspects (or "dimensions") of insurance services, as currently provided, are as follows:

- Administration, that is, who decides when and what payments are made.
- Assumption of risk, that is, who has the open-ended liability for payment of claims.
- Regulation, that is, how the plan is viewed by Government agencies and what rules must be followed.
- Restrictions on the choice of provider and the utilization reimbursed by insurance.

A discussion of the nature of each of these dimensions of health insurance follows.

Administration

The most important administrative responsibilities concern: determining eligibility of claimants, services covered, and appropriate reimbursement amounts; accounting for the amount spent; and making the financial projections needed to determine the incurred status of a plan and the rates and aggregate funds needed for the next year. The financial analysis is normally supplied by the insurer or by consultants. The other duties are allocated according to the objectives and needs of the employer and for economy of operation.

Employer involvement in the important decisions affecting the operation of a health insurance plan and in the day-to-day administration varies widely. Most employers leave all such responsibilities and duties to insurers or TPA's. Others are involved intimately with the details of operating the plans and the decisions concerning the payment of providers and claimants. A common arrangement in large employer plans is for most of the day-to-day operations to be carried out by employees of the company, rather than those of the insurer. In such situations, the insurer provides specialized technical services, such as actuarial support, adjudication of difficult claims, auditing, etc.

Risk

The question of which party is at risk in a health insurance arrangement is more complicated than it appears. Unlike most other forms of insurance, employment-based health insurance generally makes each employer pay its own costs over time, at least for employers with 100 or more employees. Insurers have developed a variety of arrangements that adjust the net cost charged to an employer to the sum of the actual costs of paying claims, administering the policy, and a "risk" charge. These types of arrangements include:

Experience-rating—The premium charged is a projection of the claims and administrative charges, plus a margin for safety. The estimate of future claims is a projection from past experience. In nonparticipating experience-rated plans, the subsequent year's premiums may be adjusted down to pay back a surplus or raised to recoup a deficit. In participating experience-rated plans, dividends (or rate credits) are paid at the end of each policy year equal to the excess of premiums collected over claims incurred and administrative and other charges made according to the insurer's formulas. The insurer agrees to pay a dividend based on the excess of premiums over claims incurred and specific "retention charges" covering all charges other than claims. Interest is usually paid on the cash flow of the policy, and dividends may be accumulated with interest. The terms of the agreement may follow the insurer's normal dividend formulas or be determined by competitive bidding.

Administrative services only—The insurer pays the claims, issues booklets, and provides other administrative functions. Claims are normally paid from an employer bank account or trust established for this purpose. Otherwise, the insurer bills the employer for the amount paid.

Claim charge-backs—Under these arrangements, the insurer has a contractual right to charge the employer for the claim run-off (the liability for claims for services that have been rendered, but for which payment has not been made) if the policy is cancelled. The only premium collected is an estimate of the cash outlays for claims payments and retention charges. This is a form of self-insurance, since there is no risk for the insurer. (There may be supplemental agreements between the insurer and the employer for excess loss reinsurance.)

These approaches all have in common that, as long as an employer continues with the same insurer, the accumulated outlays by the insurer will be continually adjusted to reflect the accumulated claims incurred, plus administration and other insurer charges. Less direct mechanisms may be applied to smaller groups, which have the effect that over time employers still pay most of their own costs. Such mechanisms include:

Credibility percentage—This is the practice of assigning smaller groups credibility factors, that vary with the size of the group. The most usual arrangement is the assignment of a credibility factor X (between zero and 100 percent) to each group based on its size and, therefore, on the expected variation in claims from year to year. Instead of charging the actual claims, the insurer charges X percent of the actual claims and (100 − X) percent times the expected claims (that is, actuarially forecast claims). The expected claims for this purpose are usually based on the actuarial characteristics of the plan (including a safety margin), just as if the plan were fully insured.

Aggregate stop-loss insurance—With this type of insurance, the insurer reimburses the employer (or pays the excess claims) if claims exceed a designated level. This level may be set in terms of nominal premium rates (i.e., expected benefits with associated administrative charges and margin) per employee and per family to allow for changes in the level of employment and the mix of families and single employees. Normally, excess loss insurance is purchased at a level that protects an employer from an unusually bad year; for example, claims more than 15 percent to 25 percent above what would be expected on the basis of

an actuarial projection. Protection can limit the benefit payment level for either the entire plan or an individual claim.

Individual stop-loss insurance—The insurer charges an employer an actuarially determined expected claim amount, rather than the actual catastrophic claims in order to spread risk (e.g., more than $25,000 in a year for an individual). Such charges represent direct risk-bearing by the insurer.

Pooling—The experience of a number of small employers is combined, and premiums are determined on the basis of the collective experience of all employers in the pool.

Minimum premium plan—This is a combination of self-funding and participating experience-rated insurance. The insurer pays the claims from an employer bank account up to an agreed maximum for the year. Any excess claims beyond this maximum are paid by the insurer. The "minimum premium" is the amount charged by the insurer for insuring the excess, any amounts pooled, and for administering the plan. The financial effect of the arrangement is the same as a participating experience-rated policy, except that premium taxes are greatly reduced and the employer has the use of the funds that would be tied up in claim reserves. In some situations, insurers insist on holding claim reserves, especially where the financial capacity of the employer or union to pay the claim run-off is in doubt. The insurance arrangements are usually on a claims revealed basis (that is, the insurer will pay for claims presented for payment by providers or insured persons) beyond an agreed maximum per month or year.

Despite technically being at risk for claims, insurers do not normally have to use gains generated from other employer groups to pay for losses where an employer-sponsored plan has a bad year. In the short run, at least as long as the plan continues with the same insurer, the lag between the dates of service and payment permit payment of all claims presented without drawing on insurer funds. The insurer will raise the premium rates for the next year by enough to cover both future costs and to make up the deficit. Insurer funds are only needed when an employer cancels with an accumulated deficit. Thus, as long as the insurer does not change, the insurance mechanism serves to spread the costs of unusually high claims over a period of years, rather than to spread it across other insured groups.

To reduce the chances that an employer will cancel with a deficit, insurers include margins in their rates proportional to the risk of loss. This risk diminishes as the size of the group grows. Thus, one dimension of any classification based on risk should be the magnitude of the risk of adverse fluctuations, and this varies principally with the size of the insured group. Variance is also affected by the design of the plan (for example, a large deductible increases the variance of claim aggregates), the demographic composition of the group, and other features.

Insurers have many ways to protect themselves against cancellation with a deficit. First, a deficit must be substantial for there to be an adequate financial incentive to change insurers. In addition, a bid from a new insurer must be increased for the cost of installing a new administrative system, acquiring the basic enrollment data, enrolling dependents and employees if contributions are required, issuing booklets, and other start-up tasks. Further, the incumbent insurer will have more information to define the risk, and can prepare more accurate projections of future claims (for example, claim files showing the nature of existing health conditions in the group). In contrast, a prospective new insurer will usually resolve most uncertainties by increasing the premium rates to reflect the worst cases, and will perhaps add a further margin to cover the possibility of other unpleasant surprises. Further, a prudent insurer will charge a higher margin to an employer who has canceled with a deficit with a previous insurer.

Substantial deficits should occur relatively infrequently if the insurance is managed prudently. In addition, insurers often persuade employers with deficits to continue, or they encourage employers to accumulate dividends in a "claim fluctuation reserve" that effectively removes all risk of loss. They may also have other business relationships with the employer that discourage cancellation.

For this article, risk is assumed to rest with the insurer where the insured group's liability is set at a level that represents the expected claims plus a normal margin (5 percent to 10 percent of expected claims). This is, in effect, assumed to occur under all regular group insurance contracts and all minimum premium plans. Contracts with excess loss insurance are treated as being self-insured, despite the presence of full or partial protection against catastrophic losses. These coverages occur primarily under ASO, TPA, and self-administered contracts. This classification reflects the limitations of the data available concerning how much risk is present and how it is actually borne. A substantial market share is held by insurers that are not reported by the HIAA (for example, Lloyd's of London).

Regulation

Health insurance plans are regulated under a number of different State and Federal laws, and through State and Federal agencies. The laws and regulations differ widely by State, and may be implemented by different State agencies. Each State has an insurance department that regulates the "commercials" (that is, those insurers other than the Blues, HMO's, and single service plans). The commercial insurers consist of stockholder and mutual (policyholder-owned) companies, and are regulated in two distinct groups: the life and annuity companies and the property and casualty companies. All may write both group and individual insurance policies. The terms "individual" and "group" insurance as

used in the insurance field relate to the type of regulation, not necessarily the relationship of the insured to the insurer. Different sets of rules are applicable, depending on the State laws, pertaining to the filing of rates, required policy provisions, loss ratios, and other important matters.

In most States, the Blue plans are regulated by the State insurance department. In a few States, no distinctions are made between the Blues and other insurers. Most States, however, have separate laws governing the Blues and any other service plans operating in that State (e.g., Delta Dental plans, Vision Care, Paid Prescriptions).

The insurance departments of most States regulate HMO's with respect to insurance functions, especially financial solvency. Federally qualified HMO's are also regulated by the Federal Government. Those participating in Medicare and Medicaid must conform to HCFA regulations.

All employer and union plans are potentially regulated by the Department of Labor. In fact, the regulation of self-insured plans is preempted by the Federal Government. States may not regulate self-insured plans covered under the Employee Retirement Income Security Act (ERISA). This regulation, however, is limited to the disclosure of certain data such as the benefit plan, premiums, claims, commissions paid, etc. Employer plans are also regulated indirectly by the Treasury through approval of deductions from Federal taxes.

Federal and State tax policies also affect the operations of insurers. Different taxes are imposed on the different types of insurers, and may vary with the mix of insurance policies sold and other details of the businesses. The nonprofit Blues, single service plans, and HMO's are largely untaxed at either the State or Federal level.

Provider choice

The restriction of benefit payments to purchases of the services from a panel of "preferred providers" is important for the potential control of health care costs. Health maintenance organizations exemplify one of the earliest forms of such restrictions in provider choice. Many reimbursement insurance plans are now including restrictions or incentives to use a preferred provider organization, or PPO. The current interest in introducing competition into the purchase of services under group insurance programs has attracted great interest in the potential for these plans.

Prototype PPO's vary widely in features, and many more variations may prove to be feasible. Typical characteristics include: simplified billing and prompt payment; provider discounts and agreement to accept payment as full compensation; competitive advantages for preferred providers, ranging up to exclusive contracts (EPO's), in return for higher patient volume; prior selection of restricted panel with cost-sharing advantage and/or reduced employee contribution; agreements for precertification of admissions and to abide by the results of utilization review; formal gatekeepers (for example, a single physician must approve all nonemergency care for any patient); and acceptance of risk sharing by providers.

It is too early in the development of PPO's to determine appropriate classifications. The list above suggests several important dimensions according to which PPO's may be classified: type of sponsor, reduction on provider choice, methods of provider compensation, approach to utilization management, degree of risk sharing (if any), and choices provided to employees.

Other dimensions of interest

Analysis of private health insurance involves other dimensions, although these have less direct impact on estimating total spending for insurance. For example, the specific features of individual insurance contracts are of obvious relevance to policy analysis. These include such matters as the specific types of services covered, the definitions of eligible providers, the payment provisions, and cost sharing. The demographic, economic, and health characteristics of the persons insured are also of vital importance. These microeconomic aspects of private health insurance are, however, beyond the scope of the current inquiry. Also, no attempt is made here to classify the various approaches to the control of the utilization of services.

Table 4 summarizes the classification of private health insurance plans according to the dimensions previously discussed. It shows, for example, that Blues nonexperience-rated standard contracts are administered by the insurer, entail risk borne by the insurer, are regulated by the State, and provide unrestricted provider choice. It shows, moreover, that while nearly all Blues plans are identical with respect to provider choice and administration, there are important differences with respect to regulation and risk. Thus, if either regulation or risk is the key variable of interest, it would clearly be inappropriate to categorize all Blues plans as a single entity. This observation reinforces the need, expressed earlier, for an expansion of the traditional method of classifying private health insurance.

The primary intent of Table 4 is to demonstrate relationships and to convey a sense of the complexity involved in measuring private health insurance. If each of the X's in the table were to be converted to a numeric estimate, one could derive the volume of private health insurance for which the insurer bears the risk versus that which is self-insured by summing down the appropriate columns; similarly, one could derive the split among modes of administration, regulation, and provider choice. Caution must be exercised, however, for certain types of plans, indicated by the footnotes. Self-insured plans, for example, often purchase some degree of catastrophic protection. Similarly, plans which are administered by insurers sometimes involve a sharing of administrative functions, and so on.

Table 4
Private health insurance plans, by type of classification

Type of plan	Administration: Insurer	Administration: Employer/ union	Administration: Agent	Risk: Insurer	Risk: Employer/ union	Regulation: Federal	Regulation: State	Regulation: None	Provider choice: Restricted	Provider choice: Unrestricted
Blue Cross and Blue Shield plans										
Standard contracts										
Nonexperienced rated [1]	X			X			X			X
Experienced rated	X			(4)	X		X		(8)	X
Cost plus	X			(4)	X		X		(8)	X
Administrative service contracts (ASC)	X				X	(6)		X	(8)	X
Insurance company plans										
Individual policies	X			X			X			X
Group policies										
Nonexperienced rated [1]	X			X			X			X
Experienced rated	X	(2)	(2)	(4)			X		(8)	X
Minimum premium plans (MPP)	X	(2)	(2)	X			(7)		(8)	X
Administrative service only (ASO)	X			(5)	X	(6)		X	(8)	X
Self-insured, self-administered plans		X		(5)	X	(6)		X		X
Third-party administered plans (TPA)			X	(5)	X	(6)		X	(8)	X
Prepaid plans										
Health maintenance organizations (HMO)	X			X		X	X		X	
Single service plans										
Individual contracts	X		(3)	X			X		X	
Employer contracts	X		(3)		X		X		X	

[1]Includes individual contracts, small group contracts, and some larger groups.
[2]Under many contracts, administrative responsibilities are divided between the insurers and the employer or union. In other cases, insurers contract administration out to TPA's.
[3]Some specialized services plans contract administrative responsibilities out to TPA's.
[4]The insurer typically bears only risk of cancellation with a deficit.
[5]Some self-insured plans purchase excess-loss insurance or other catastrophic coverage that transfers part of risk to an insurer.
[6]Under ERISA, all noninsured employer or union sponsored plans are nominally regulated by the Department of Labor. State or local government regulation is specifically precluded by ERISA.
[7]The minimum premium paid to insurers is clearly subject to State regulation. Some States claim regulatory (and tax) authority over the self-funded portion of the premium as well.
[8]Some insurers and self-insured employers have contracted with PPO's and impose various forms of restrictions to encourage PPO use.

Summary

An evaluation of private health insurance estimates has resulted in changes in both measurement techniques and the conceptual or accounting framework used to depict the industry. A key finding is that the administrative-service-only contracts of insurance companies should be included in the estimates. The proper classification for these contracts depends upon the objective of the analysis, which may make risk, administration, regulation, or some other perspective the appropriate focus.

In similar fashion, minimum premium plans are now incorporated in the estimates as an appropriate measure of self-funded plans with such arrangements. MPP's had always been recognized as belonging in the insurance company estimates, but until recently data had not been available to split them from ASO plans. Likewise, data are only now becoming available on third-party administrators. Preliminary estimates of TPA's have been made for the new insurance totals.

The estimates provided in this article are not final. Refinements, based on further research, are needed, particularly for TPA's, because estimates are based on an incomplete universe. Further, this is a rapidly changing industry. For example, the move to self-insurance is associated with new market forms of products such as ASO's, MPP's and TPA's. Cost-containment efforts have led to cafeteria plans and preferred provider organizations. Advances in health care treatment and technology, the aging of the population, and changes in the delivery system will all precipitate new insurance needs. Continued competition among insurers will inevitably lead to the introduction of new lines of insurance to meet these demands. This, in turn, will cause a need for new measures and conceptual frameworks for analysis. Many of the old industry distinctions have been blurred by recent changes, and assuredly, the distinctions being developed here will be blurred by tomorrow's events.

Further research

Because of its dynamic characteristics, analysts must keep pace to produce an accurate picture of private health insurance. The Health Care Financing Administration has awarded a contract to study independent-prepaid and self-insured health plans. The contract effort will carry on the traditional series of independent-plan censuses, providing comprehensive benchmark data on enrollment, coverage, and financial characteristics of these plans. In addition, the contract calls for an evaluation of HCFA current definitions, classifications, and methodologies in measuring independent health plans. Emphasis is to be given to potential overlaps in data sources, especially the insurance company and Blue Cross and Blue Shield arrangements with self-insured plans. Finally, a time series measure for data on self-insured plans using a TPA is to be developed. The independent health plan study will provide benchmark data for 1984 and annual survey data for the 3 following years. Information from these studies will be published periodically.

Acknowledgments

The authors particularly want to thank Jim Mays of Actuarial Research Corporation who helped all along the way, and Leonard Greenberg of Mandex, Inc., who was there when we needed him the most. We also wish to thank Mark S. Freeland, George I. Kowalczyk, Carolyn Cocotas, Katharine R. Levit, Carol S. Cowell, Patricia A. McDonnell, Robert M. Gibson, Daniel R. Waldo, Lawrence M. Davidoff, Sally T. Sonnefeld, all of the Division of National Cost Estimates, Stephen A. Meskin, FSA, of the Division of Medicaid Cost Estimates, and Jim Price of Actuarial Research Corporation, for their many constructive comments on the article. Special thanks go to Nancy Smythe of Actuarial Research Corporation who suffered through many drafts and more than one late night typing session. The authors are grateful to Carol Pearson, Division of National Cost Estimates, who put the final product together.

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