

The Effect of Ownership on Health Plan Performance

Paul J. Feldstein
Professor
Graduate School of Management
University of California at Irvine

Michael Chernew
Associate Professor
School of Public Health
University of Michigan

December 11, 2001

Contents

1. Introduction and Overview	1
2. The Theory of Competition	2
3. What Do Insurers Produce	4
4. Who is the Consumer	6
5. Why Non-Profit Firms Exist.....	7
6. Comparing Costs Between Non-Profit and For-Profit Plans	9
7. Comparing Behavior of Non-Profits and For-Profits Regarding Premiums and Quality	14
7a The Importance of Non-Profit Objectives.....	14
7b. The Importance of Competition.....	19
8. Review of Studies	25
9. Empirical Evidence	29
10. Concluding Comments	33
11. References	35
12. Tables.....	37

1. Introduction and Overview

Over the past several decades, as the health care sector has become more market oriented, for-profit hospitals and health insurers have increased their market share. This has generated considerable controversy. Proponents of for-profit ownership contend that for-profit firms can provide services more efficiently than non-profit firms and may therefore stem rising health care costs. Opponents are concerned that for-profit firms charge higher prices and provide lower quality services in order to benefit their shareholders.

This paper provides a framework for assessing the influence of ownership type on relative performance of firms in the health insurance industry. We will focus on the distinction between for-profit and non-profit firms because that is where most of the theoretical and empirical literature has focused. While no studies have been conducted on the performance of mutual health insurance companies, a comparison of for-profit and non-profit health insurance companies can shed light on whether the corporate form has an effect on health plan performance. The advantages and disadvantages of profit and non-profit ownership are discussed. The published literature is reviewed to assess what is known, and what is not, about the impact of ownership type on quality in health insurance markets, and the performance of not-for-profit and for-profit health plans is compared using standard measures of health plan quality.

Several conclusions can be drawn from this analysis. First, the impact of both forms of ownership depends upon the environment in which they operate. Market forces, the regulatory environment, and institutional structures limit the extent to which ownership type influences outcomes. Because market forces are so important, competition and availability of information

are emphasized as factors that influence the extent to which ownership type affects firm behavior and market outcomes. Purchaser behavior, namely the role of employers, is thus crucially important in influencing the behavior of health plans. Based on the evidence to be discussed, it is our opinion that the conversion of a non-profit Blue plan to a for-profit Blue plan will likely have no adverse effect on the quality of service it provides to its enrollees.

2. The Theory of Competition

Exploring some of the rules of economics that impact the way non-profit and for-profit firms behave in the health care marketplace.

The price and quality of products produced in any industry depend on the costs of production, the demand from consumers, and the nature of competition. In models of perfect competition, societal welfare is maximized when every agent acts in their own self-interest. The key insight is that agents in competition with each other are constrained in their behavior by the behavior of others. The degree of constraint depends on the degree of competition. At one end of the spectrum is a purely competitive market. At the other end is a monopolist. Anti-trust policy in the U.S. is based on the premise that competitive markets are desirable in that they benefit the consumer more than markets organized as monopolies. Public anti-trust policy seeks to prevent monopolization of markets.¹

¹ Health care is a locally produced product. The relevant market is therefore the local area. Hence an acquisition of one firm by another that otherwise was constrained to operate in a different market would not change the market power in either market unless the acquisition affected cost curves or demand curves (through, for example, the value of an acquirer's brand name). For example, Blue plans are not permitted to enter the market area and compete with an existing Blue plan. Thus, Blue Plans in one market are not potential competitors of Blue's in other markets. If one Blue Plan acquires another, there is no change in the number of potential competitors in either market because, prior to the acquisition, neither could have entered the others market..

Important issues related to health care include whether health care markets are competitive and, to the extent they deviate from the competitive model, how they can be made more competitive. For example, in perfect competition, firms may want to raise prices, but they risk losing business—and profits—if their prices are above a competitive level. Similarly, if firms provide products of substandard quality, they lose business and profits fall. Firms may want to lower what they pay suppliers or workers, but they would be unable to attract necessary suppliers or workers if they attempted to pay below the competitive level. In this competitive environment, firms can achieve profits only if they produce their product more efficiently than their competition or if the regulatory environment offers them some advantage relative to their competitors.²

Deviations from the competitive model occur if the purchasers of the service are not perfectly informed or if there is an insufficient number of competing firms. Successful product differentiation (producing a product that consumers view as different from competitors' products) can have an impact on market outcomes, e.g., higher prices, similar to what occurs when there are few competitors.

Though the assumptions behind perfect competition are seldom fully achieved, the key issue is the magnitude of those deviations. For example, some work suggests that the benefits of competition can be largely achieved with only a handful of competitors (1). Moreover, in many cases it may not be the number of competitors that determines market competitiveness, but the

² Even a market with only for-profit firms may be affected by regulations. Regulations that affect only a subset of firms will generally put the affected firms at a competitive disadvantage and may allow the other firms to earn profits. For example, if one insurer were not allowed to change its provider networks (e.g. drop high cost or low quality providers), it would be at a disadvantage, depending on how many costly or low quality providers it was forced to keep in its panel and how successful its competitors were in excluding them. Generally this restriction would be disadvantageous for consumers because it would reduce competition and reduce incentives for such providers to lower costs or improve quality.

potential for entry. If any given firm abuses its market power, other firms may enter. The potential for entry thus serves as an additional constraint on firm behavior.

On the purchaser side, what matters is how willing consumers are to change buying habits in response to changes by any single firm in the prices and quality of its products. The sensitivity of consumers to the prices and quality from any given firm depends, of course, on their ability to purchase substitute products. A greater number of firms is associated with greater competition because more firms implies a greater set of substitution possibilities. However, even monopolists are constrained by the market because there may be entry by other suppliers and consumers may opt not to purchase the product at all.

Similarly, on the supplier side, what matters is how willing suppliers are to refuse to sell to a given firm if the price is set too low. If a firm attempts to pay suppliers too little, they will not be able to attract the quality of inputs necessary to produce the output they desire. Although they would want to pay less to suppliers, failure to pay a market rate would result in lower profits because they would be unable to serve the number of customers that they would like.

3. What Do Insurers Produce?

Insurers in today's changing health care marketplace provide services that go beyond those of traditional insurers.

Insurers produce multiple 'products' bundled together in varying degrees within each health plan. Traditionally, the insurance sector provided consumers protection from the financial risks associated with adverse health events. Consumers who required medical care could receive reimbursement for all or part of their medical expenses from the insurer. For this aspect of

insurance, the key quality dimensions are customer service and efficient administrative processes for claims payments.

In today's health insurance marketplace, insurers provide additional services beyond those of traditional insurers. For example, they commonly provide medical management services. This entails a wide range of managed care activities, including utilization review, creation and maintenance of physician panels, patient and provider education, design of physician incentive systems, and wellness programs. These, and similar, activities have ramifications for patient care, and are generally designed to reduce utilization (and hence costs), though in many situations they strive to increase utilization of certain health care services, such as preventive care, which are costly in the short run but are likely to enhance quality and may result in lower costs in the long term.

Medical management services are valuable because traditional insurance provided incentives for utilization to exceed the level that would be economically optimal. The fundamental problem with traditional insurance is that insurance inherently reduces the price of health care to consumers when they become ill. As a result, there are no incentives for consumers to be cost conscious when making decisions about care, and therefore much inefficient care may be delivered. Moreover, because providers have traditionally been paid on a fee-for-service basis, physicians have had incentives to increase use. Medical management services are also valuable because historically many desirable health care services, such as immunizations and cancer screenings, have been under-used and insurers have the administrative data systems to efficiently adopt strategies to increase use of these services.

Another component of the insurance product is 'price shopping' on behalf of enrollees. Under traditional insurance policies, consumers were not cost conscious and did not shop for

providers on the basis of price. As a result, incentives existed for prices to rise above economically optimal levels. By creating panels of providers willing to serve enrollees at pre-negotiated prices, insurers could instill price competition into the health care marketplace. The key to this system working is the ability of insurers to select providers on the basis (in part) of price.

Taken together, the excess utilization of health care services and inflated prices that stem from the incentives inherent in traditional fee-for-service insurance result in high insurance premiums. Today's insurers provide value by mitigating these excesses. In doing so they can reduce premiums and attract business while still retaining some funds left over for-profit (surplus) or non-profit goals.

4. Who Is the Customer?

The role of employers is crucial; acting as agents for employees, they exercise significant influence over health plan choices.

Analysis of health insurance markets is complicated because of the employment-based nature of the health insurance system. The vast majority of private coverage is purchased by employers on behalf of their employees. Thus both employers and employees can be viewed as customers. Employers are important because they select which plans the employees may choose and they determine the rules surrounding the choice of plan (how much the employee must pay to enroll in each plan). Although economists believe that employees ultimately pay for insurance, the role of the employer is important because it affects the relative incentives for joining different plans and the extent to which consumers will switch plans in response to various insurer activities.

For their part, employers provide coverage as a fringe benefit for employees. Their goal is not to purchase the least expensive coverage (that could be done by purchasing no coverage at all), but instead to purchase the coverage that makes their employees most satisfied. A company that obtains coverage from any given health plan at a lower premium than competing employers gains a competitive advantage in the labor market. Similarly, if a company can find a health plan that offers a premium/ benefit/ quality combination that employees prefer to that offered by competing employers, it would have a competitive advantage. Because employers ultimately care about how employees value the health plan packages offered, they can be viewed as acting as the employee's agents.

5. Why Non-Profit Firms Exist

Some key reasons non-profit firms have traditionally dominated health care markets.

In standard models of competition, firms act to maximize profits. For-profit firms dominate most markets, with few if any firms organized as not-for-profit organizations. In contrast, non-profit firms have traditionally dominated health care markets, with for-profit firms gaining market share only relatively recently. Examining the reasons why non-profit ownership exists facilitates understanding the ramifications of non-profit ownership.

What might explain the prevalence of non-profit ownership in health care markets? One explanation is that there was insufficient demand from consumers to generate profit in health care markets, therefore for-profit firms would not serve this market. Yet, the importance of health, and the desire of individuals to support health care, allowed non-profit firms to exist, supported by charitable donations. Undoubtedly this is part of the explanation, particularly in the years before insurance coverage existed and hospitals served the poor. (Hansmann [1980] labels

organizations serving such markets as ‘charitable’ because their primary mission is often to provide ‘public goods’, e.g, products such as public parks that society collectively desires, but demand from individuals will not be sufficient to encourage their production.) (2)

The co-existence of for-profit firms suggests an alternative explanation. Arrow, (1963) in his seminal work, suggests an explanation centering on imperfections in the health care sector, coupled with the importance of health care to consumers. (3) Consumers in health care markets cannot easily verify the quality of the services that they purchase, and if they purchase services with inferior quality, it is often difficult and costly to obtain a suitable remedy after the fact. As a result, they must place considerable trust in the firm or organization providing the service. Non-profit ownership is taken as a signal of quality because such firms presumably desire to produce high quality services and have less of an incentive to skimp on quality and save money to increase profits.

Because non-profit ownership might be taken as a signal of quality, non-profit firms are more likely to exist in industries where the quality of the product is very important and hard to observe. If information about quality becomes more widespread, one would expect the prevalence of non-profit firms to diminish because consumers can observe quality more directly.

Another explanation for the existence of not-for-profit firms in health care, particularly health plans such as Blue Cross, is that they were meant to serve the interest of health care providers such as hospitals and physicians. For example, Blue Cross plans were started by hospitals, which also provided their initial capital, and hospitals controlled Blue Cross plans for many years. By controlling the insurers, hospitals and physicians could influence their behavior in ways that would limit the extent to which insurers encouraged competition among health care providers. Non-profit ownership provided greater legitimacy for such activities and worked in

conjunction with codes of professional ethics that were designed to limit competition in the health care industry.

6. Comparing Costs Between Non-Profit and For-Profit Plans

Why for-profit plans may be better equipped and have greater incentives than non-profits to achieve cost savings and efficiencies.

One key policy question is whether ownership type affects costs. It is not clear whether non-profits or for-profit ownership would be expected to have cost advantages. Non-profits may have lower costs because of tax advantages. They may also have advantages if the health care providers that organized and sponsor them charge for-profit insurers higher rates or otherwise discriminate against the for-profit competitors, i.e. hospitals providing a discount to Blue Cross Plans. Finally, although access to donations would technically be viewed as an additional revenue source, the revenue from donations could be analyzed identically to a reduction in costs. Non-profit insurers receiving many donations may behave as if costs are lower.

Alternatively there are several reasons why one might believe for-profit firms have cost advantages. Let's examine three types of cost savings. First, ownership type may affect the nature of the product insurers produce. Specifically, medical management is a key component of the health insurance product. Firms may differ in the ways in which they manage utilization. If inappropriate or inefficient care can be reduced, cost savings will result. More efficient firms will reduce utilization, and associated costs, in ways that consumers will desire. For-profit firms likely have greater incentives to find the most efficient amount of medical management. For example, for-profit firms have incentives to innovate in terms of network design, contracting

with health care providers, information collection and dissemination, and in the way in which they empower and motivate patients.

The second type of efficiency relates to economies of scale. Specifically, unlike non-profit firms, for-profits have access to capital markets. This may reduce their cost of expanding and allow them to exploit economies of scale. To the extent that insurers face increasing fixed costs associated with contracting, information system development and quality improvement initiatives, the importance of economies of scale in the insurance market is likely growing.

Finally, the third cost savings approach involves producing the same output at a lower cost. The cost reductions could come from several sources. First, for-profit firms may be able to use a more efficient mix of non-clinical inputs, such as information technology, administrative staff or efficient use of out-sourcing. Second, they may organize administrative processes in ways to reduce costs. Third, they may be able to attract staff at wages closer to the competitive level. Fourth, they may pay health care providers, physicians and hospitals less.

Several factors influence the degree to which ownership type affects decisions on how far organizations should go in exploiting these sources of cost savings. For-profits will attempt to exploit each to the extent possible. Non-profits may not, depending on their objectives. If the non-profit firm includes in its objectives the well-being of workers, it may not fully exploit opportunities for more efficient use of labor or opportunities to reduce wages to competitive levels. For-profits, in general, have greater incentives for efficiency, and therefore tend to have greater cost savings.

Perhaps more important is whether non-profits will exploit opportunities to purchase physician and hospital services at competitive prices. Provider reimbursement by a health plan is determined by the degree of price competition among health plans as well as the degree of

competition among providers. A highly price - competitive health insurance market will require health plans to reduce their input costs and manage care more efficiently. Similarly, a high degree of price competition among providers to be included in the insurer's network will result in a greater willingness among providers to reduce the prices they charge health plans. Efficiencies may also be achieved if the insurer can generate competition among health care providers to obtain provider services at lower fees.

The extent to which this is possible depends on the willingness of providers to accept lower fees. The degree of market power between the health plan and the provider has a strong influence on the negotiated price. Excess capacity among hospitals and physicians, together with low concentration levels among providers, would result in large discounts in prices charged by hospitals and physicians. In areas with many hospitals, hospital consolidation has occurred, and this has enabled them to negotiate higher rates with health insurers. Physicians in areas with many physicians and physician groups have found it harder to similarly consolidate, leaving them in a more disadvantageous bargaining position. However, in areas with few hospitals or physician groups, physicians and hospitals may hold market power naturally. In these areas cases there may be little room for insurers of any ownership type to improve the efficiency of care delivery or drive prices to the economically efficient levels. In any case, excessive reductions in provider fees will result in unstable networks and reductions in insurer profitability.

Even if non-profits do wish to exploit those sources of efficiencies, for-profits may have a greater incentive to do so. Shareholders are likely to be more concerned with performance. And the ease with which profits can be observed facilitates evaluating the managers of for-profit firms. Moreover, because under-performing publicly traded for-profit firms risk being taken over by outside management, managers of for-profit firms face a stronger incentive to perform

well. For these reasons, for-profit firms have greater incentives to find innovative ways to lower costs so competitors will not steal their market; they similarly have stronger incentives to remain efficient.

In non-profit firms there are no institutional investors, which are a common feature of most publicly held firms, to monitor the performance of non-profit managers. Non-profit managers have few incentives to maximize their firm's financial performance and may not have access to capital necessary to make use of technologies that can improve efficiency. The varied nature of the mission of non-profit firms and the common difficulty in measuring outcomes make it difficult to assess managers' performance. The lack of an outside threat of takeover further reduces incentives for innovation and efficiency. With no market pressures that may affect their survival, non-profit firms are less likely to be efficient or to innovate.

The case of Blue Cross insurers illustrates both the importance of objectives and the importance of competition in determining whether ownership type will affect fees paid to health care providers. Established ties between providers and Blue plans may have encouraged plans to overpay health care providers. Historically, Blue Cross and Blue Shield plans were relatively generous in their reimbursement policies to hospitals and physicians. Further, these health plans did not interfere in the practice of medicine or contest physician decisions.

The relationship between health plans, including the Blues, and their providers began to change in the 1980s. Under pressure from employers to reduce the rise in health insurance premiums, health insurers became more active in their enrollees' choice of provider and even in the practice of medicine. Health plans limited their provider networks, establishing PPOs that affected a patient's choice of provider. Health plans established prescription drug formularies

and utilization management programs, both of which inserted the health plan between the physician's treatment decisions and their patient.

The changing insurer-provider relationship was not the result of the rise of for-profit health insurers and HMOs. The new adversarial relationship between insurer and provider occurred because the major purchaser of private health insurance, the employer, wanted a reduction in the rise in health insurance premiums.

Competition between health plans for employer contracts forced insurers to change the way they did business. Intense premium competition between health plans, not the form of health plan ownership, made hospitals and physicians worse off.

Health plans with large market shares and a willingness to shift their enrollees to providers that would discount prices and participate in the insurer's utilization programs forced many providers to acquiesce to their terms of participation.

Under pressure of price competition for employer business, not-for-profit Blue plans behaved no differently than for-profit health plans toward their providers. Historically, non-profit Blue plans were slow to adapt to the changing competitive environment. For-profit firms, such as new HMOs, were more innovative in identifying ways to reduce their input costs. In the more price competitive environment, however, all types of plans had to seek ways to lower their input costs to be price competitive. A redistribution of wealth has occurred. Providers, particularly physicians, have received lower payments, hence incomes, as a consequence of the shift to managed care competition. In turn, employers and their employees have paid lower health insurance premiums than if this market competition had not occurred. As long as the quality of its physician and hospital networks are not diminished, consumer welfare is enhanced through lower payments.

7. Comparing Behavior of Non-Profit and For-Profit Firms Regarding Premiums and Quality

Differences in objectives and the degree of competitiveness in the marketplace are key factors that affect the behavior of firms.

The motivation of for-profit firms in health care is obvious — to make as much money as possible for their shareholders. Therein lie both its disadvantages and advantages in health care. The for-profit form of ownership in health care presents the concern that to make a profit, the firm or health plan will sacrifice the consumer's interest to that of the stockholder. Will the for-profit firm raise premiums more than would a not-for-profit firm? Will the for-profit firm inadequately reimburse its providers to ensure dividends to its stockholders? Will the for-profit firm provide lower quality services, reduce access to care, neglect preventive services, and have lower customer satisfaction than a not-for-profit firm? More generally, would for-profit health plans behave any differently than not-for-profit health plans? In a price competitive market the answer to these questions, based on the literature and my experience, is no.

7a. The Importance of Non-Profit Objectives

Technically, the distinction between not-for-profit and for-profit firms relates to the restrictions placed on non-profit firms regarding how surpluses are distributed. Most importantly, for-profit firms can distribute surpluses (earnings) to shareholders. Not-for-profit firms cannot.

This technical distinction between firms of different ownership types is less important than any potential behavioral distinctions. Public policy must be concerned with whether firms

of different ownership type behave differently. Not-for-profit firms may behave differently than for-profit firms for several reasons. First, the non-profit firms presumably want to achieve goals other than profits, although profits (surpluses) may still be one goal of the organization. One way to conceptualize the ramifications of these differing goals on the behavior of non-profit firms is to assume that if they were profit maximizing, non-profit firms would spend the potential profits that could have been earned on their non-profit goals.

Analyzing markets with non-profit firms is complex because one must attribute objectives to these firms. Historically, before Blue plans were subject to intense price competition, some Blue plans had differing objectives. If the firm desires to serve unprofitable markets, the losses accrued in those markets can be viewed as funded by the profits from profitable markets. If the non-profit firm is acting in the best interest of consumers, they may charge a lower price than they otherwise would, essentially transferring some of the profits to enrollees. If the non-profit firm desires to improve the welfare of suppliers, they may spend some of the potential profits to increase the fees paid to suppliers. If the goal of a non-profit firm is to support the management or employees, salaries may be higher, working conditions more favorable, and the number of employees greater than would otherwise be observed. (The extent to which non-profits could achieve these goals depends upon the price competitiveness of the market. In more competitive markets, the funds may not exist to allow non-profits to achieve many non-profit goals.)

It is important to recognize that not all of these 'non-profit' objectives are socially desirable. For example, standard economic analysis would not consider improving the welfare of suppliers as an objective that improves societal welfare. The costs of improving supplier well-being would be paid by enrollees. For example, to the extent that the Blue-Cross/ Blue Shield

plans reduce competition among health care providers, and therefore act to maximize the welfare of health care providers as might be suggested by their history, this reduces societal well-being.³

Empirical work has yet to definitively demonstrate what activities, e.g., charity care, the preferred tax status, donations and any customer discounts ‘buy’ in the health care sector. (Even if favorable tax treatment and donations do result in greater community benefit from non-profit entities, it is not clear whether these mechanisms are the most effective way to fund such activities.) These advantages may buy the luxury of being inefficient in other areas or may fund the pursuit of non-profit goals that do not provide proportionate societal benefit.

Moreover, it is important to recognize that having non-profit status does not prevent abuses of power. The not-for-profit form of organization also led the management of some Blue plans to enrich themselves. Managers of these plans who could not increase their wealth through stock ownership used other means to benefit themselves. They were able to do so because these plans lacked the oversight normally provided by financially motivated investors.

³ Historically, the conditions under which Blue Cross operated discouraged price competition among hospitals. Blue Cross patients had a “service” benefit, whereby they did not have to pay anything if they were admitted into a Blue Cross participating hospital. Patients therefore had no financial incentive to choose the least expensive hospital or to be concerned with hospital charges. Also, Blue Cross plans typically had to sign participation agreements with 75 percent of the hospitals in their service area, thereby making it impossible for a Blue Cross plan to encourage price competition among hospitals by forming a preferred provider organization. Further, Blue Cross benefits were predominately for hospital care, excluding less costly outpatient services, which would have reduced hospital demand. In return for these arrangements, hospitals provided their Blue Cross plans with a competitive cost advantage over for-profit insurers by giving Blue Cross a price discount, as much as 25 percent. Blue Cross plans thus had two cost advantages over their for-profit competitors, an exemption from Federal taxes and a large hospital discount. These cost advantages enabled Blue Cross plans to expand their market share, even though neither their enrollees nor their hospitals had strong incentives to be efficient in their use or production of hospital services. Given the constraints that were placed on Blue Cross plans by their hospitals, Blue Cross plans were not as efficient as they might have been in selling health insurance.

The following quotes from a 1994 government document are informative in this regard:

(4)

- The Staff's previous investigations have revealed what we call a "Fortune 500 mentality" among some of the BCBS plans. This is usually evidenced by spending subscriber money on lavish items such as country club memberships, stadium skyboxes, and transcontinental flights aboard the Concorde. The Staff has expressed particular concern over such spending by BCBS plans because of their non-profit status.
- The Chief Executive Officer of BCBS of Colorado was fired for mismanagement that included granting lucrative contracts to Board members and engaging in extravagant spending patterns.
- In July of 1993, the Louisiana Insurance Department placed BCBS of Louisiana into conservatorship on grounds of mismanagement. On October 7, 1993, the Chief Executive Officer of the Mississippi BCBS plan, which runs the Louisiana plan, was indicted and eventually entered a guilty plea involving the bribery of State insurance regulators in Mississippi.
- In August of 1993, the FBI was reported in the press to have opened an investigation of the Cleveland BCBS plan for alleged kickbacks in regards to a \$5 million contract awarded by the Turnpike Commission. .
- Two former executives of the Maryland BCBS plan were indicted by a Federal Grand Jury in Baltimore on March 29, 1994, for secretly diverting plan assets to businesses in which they had a financial interest. The new Maryland Board of Directors also sued the former officers of the plan for waste of assets and improper payments, including a \$5 million supplemental retirement plan for the former CEO.

- On February 17, 1994, the New York Insurance Department issued a report, which confirmed major findings of the Subcommittee concerning widespread management abuse and wasteful expenditures. The new management team at Empire (New York) distanced itself from prior management's claim that "cherry-picking" by private insurance industry caused financial losses and blames prior management excess and incompetency for most of plan's problems.
- The Pennsylvania Insurance Department issued a report criticizing the Camp Hill BCBS plan management for excessive expenditures including a \$50,000 coffee table, over \$300,000 for sporting events and club dues for plan executives.
- The Insurance Department issued a critical report of both King County Medical Blue Shield and Blue Cross of Washington and Alaska for excessive salaries and exorbitant expenditures.
- On May 20, 1994, the Chicago Better Government Association reported that the FBI was investigating contracts between BCBS Illinois and a Chicago School Board official for steering contracts.

While the Blue plans cited above are likely not typical of Blue plans in general, it is clear that not-for-profit ownership by itself does not ensure that such plans will act in the consumers' interest. Other monitoring mechanisms are required when an organization is not responsible to shareholders and management's incentives are not aligned with those of the owners.

7b. The Importance of Competition

The extent to which non-profit firms can pursue goals that differ from what consumers demand depends on the degree of competition in the market. Competition is a key determinant of the amount of ‘potential profits’ that non-profits have to spend on their non-financial objectives. As markets become more competitive, this source of funding diminishes and one would expect non-profit behavior to approximate for-profit behavior, not because non-profits wish to pursue for-profit goals, but because they must abandon some of their goals just to remain in business. In non-profit circles, this gives rise to the phrase “no money, no mission”.

Assuming non-profit and for-profit firms had the same cost structure (which they may not as discussed above), one might expect any given firm to charge a lower premium if it were non-profit as opposed to for-profit (if in competition with each other both would charge similar premiums). The extent to which non-profit status might cause any given firm to charge a lower premium than an identical non-profit firm would depend on two factors. First, to what extent is the desire to keep premiums low part of the non-profit mission? As the ties between non-profits and the communities they serve weaken, they may be less concerned about community well-being and opt to serve other non-profit goals. Second, by how much does the profit maximizing premium exceed costs? Competition will drive the gap between premiums and costs to zero and therefore provide little discretion for a non-profit firm to charge below what a for-profit counterpart might.

Insurance premiums, however, are not the only basis of health plan competition. Employees, and employers on their behalf, seek several features in an insurance policy. The first is low premiums. All existing empirical work, whether examining employer behavior or consumer behavior, finds that, holding other plan traits constant, higher premiums reduces

market share. (5) Yet non-premium attributes of health plans are important as well. Obviously, the benefits (how much and what is covered) matter. But consumers also want plans that offer a wide choice of physicians and hospitals, particularly high-quality providers. When an insurer ponders limiting the size of its provider network, it must weigh the benefits associated with lower premiums against the desire of consumers to have a broad choice of physicians. If insurers go too far, they will lose business just as readily as if they were to raise premiums. It is for this reason that many staff-model plans with relatively narrow provider networks have expanded to become mixed-model plans, and it explains the growth of open-ended HMOs, point-of-service plans, and preferred provider organizations — all forms of coverage that allow access to a broad range of physicians.

In assessing whether ownership might affect plan quality, it is important to distinguish between observed and unobserved quality, because the effects of competition and ownership type will be sensitive to the available information. For observable dimensions of quality, the optimal level of quality would depend on the willingness of consumers to pay for quality. For-profit firms, because of their focused attention on the marketplace, would strive to provide quality that customers demanded and were willing to pay for. This might include measures of quality found in the two most common systems for measuring health plan quality, the Health Plan and Employer Data and Information Set (HEDIS) and the Consumer Assessment of Health Plans (CAHPS).⁴ Variables captured in these systems include immunization rates, rates of

⁴ HEDIS was created by a consortium of large employers (purchasers) and health plans in 1989 as a Health Plan evaluation tool to be used for quality improvement. It consists of standards for how health plans can measure their performance. For example, HEDIS defines which aspects of clinical care will be measured (e.g. immunizations) and which population of patients will be included for each measure (e.g. continuously enrolled adolescents). Although HEDIS was originally developed by a consortium of large employers and insurers, the responsibility for maintaining and revising HEDIS measures now lies with The National Committee for Quality

appropriate treatment following illness episodes such as heart attacks, and levels of enrollee satisfaction. Often, report cards that evaluate health plan quality recognize the multiple products bundled together in a health plan. Typically, the multiple measures are aggregated into domains of performance such as ‘patient satisfaction’ or ‘getting better’. Observable quality may also include other, perhaps related, dimensions of quality such as broad physician networks and easy referrals.

In some cases, achieving high quality along one dimension of performance may impede the ability of a plan to achieve high quality on other dimensions. For example, creation of a

Assurance (NCQA), which is the primary accrediting body for the MC industry. The measures contained in HEDIS are largely process measures but structural and outcomes measures are also included. For example, beta-blocker use after myocardial infarction is a process measure included in the data set, while percent of low birthweight babies is an outcome measure and percent of physicians with board certification is a structural measure.

The popularity of HEDIS has grown due to competitive market forces and industry regulation. Compliance has been significant and largely driven by large purchasers (e.g. corporations, state Medicaid programs, etc.) who demand that plans report HEDIS data as a requirement for contracting. In addition, many purchasers have also required plans to be accredited by the NCQA. Prior to 1999, NCQA required, as part of its accreditation process, that plans simply demonstrate the existence of a quality measurement and improvement program. Since HEDIS is administered by NCQA, most plans chose HEDIS to demonstrate that quality measurement was occurring and that a quality improvement program existed, even though specific use of HEDIS was not required for a plan to receive accreditation. Beginning in 1999, sixteen HEDIS measures are now required as part of the NCQA accreditation process, leaving plans with little choice but to report at least a portion of the HEDIS dataset if NCQA accreditation is desired.

A more recent health plan performance measurement system is the Consumer Assessment of Health Plan Survey (CAHPS) sponsored by the Agency for Health Care Policy and Research. Unlike HEDIS, which primarily relies on administrative records documenting clinical procedures, CAHPS uses survey methodology to capture the opinions of health plan enrollees about their experiences with their plans. CAHPS reports inform consumers about how others rate the care provided by their health plans. Like HEDIS, CAHPS measures have been disseminated publicly and have been incorporated into plan report cards. The CAHPS survey is now incorporated into the HEDIS data set, resulting in an assessment tool that includes administrative, clinical, and member survey data.

Most health plan report cards are based on some combination of HEDIS/CAHPS data. The exact methodology for combining HEDIS and CAHPS data is typically determined by the organization creating the report card, but standards are increasingly developing in this area as well.

broad physician network with easy referral, which is one measure of quality consumers desire, may tend to decrease the ability of the plan to achieve high immunization rates or consistently high rates of appropriate treatment following heart attacks measured in HEDIS. In these cases, the for-profit firm would let the market decide how to balance the competing dimensions of quality. The for-profit firm would strive to provide the level of quality on each dimension consistent with customer preferences and willingness to pay.

Non-profit insurers in the same situation may resolve the conflicts between alternative dimensions of quality differently, depending on their organizational objectives. For example, if a non-profit organization values clinical dimensions of care such as immunizations above non-clinical dimensions of quality, such as the breadth of the provider panel, they will strive to achieve greater clinical quality at the expense of breadth of provider network. Alternatively, if they value breadth of network above dimensions of clinical quality, they would strive to maintain a broad network. It may be that the non-profit goals match consumer desires, but if not, the non-profit insurer would likely be less responsive to those desires than the for-profit plan — unless the market is so competitive that the non-profit must match consumer preferences in order to survive.

Considerable resources from both employers and the government have recently been devoted to measuring and reporting health plan performance. Measurement systems such as HEDIS and CAHPS, though seriously flawed, are in continual development. Efforts are underway to incorporate more measures of outcomes into such systems and improve the manner in which they are disseminated. As these systems evolve and become increasingly adopted, we would expect the observable dimensions of quality to expand and the unobservable dimensions to decrease.

Moreover, the role of employers in the market likely enhances the degree of information available because employers are probably better equipped than consumers to shop for coverage. Large employers in particular have been instrumental in developing a variety of measures for health plan performance. For example, HEDIS, which provides the basis for most health plan report cards, was developed by a coalition of health plans and large employers. Mostly as a result of pressure from large employers and other health plan purchasers, such as the federal government, health plans now widely report HEDIS measures. Other attributes of health plans, such as the provider network and coverage policy, are also generally easily observable.

The specifics of medical management tools, including incentives given to providers of care, may be less observable, yet the role of employers in the market reduces the information gap. Because firms purchase insurance each year, they may have the opportunity to observe these difficult-to-observe traits, or at least proxies for these traits. Again, the role of employers in the market may help, because they may collect information over many years and from many employees. Although there can be some switching among plans, customers generally have experience with each plan over a period of time, and employers have the opportunity to observe and learn from the experiences of large numbers of employees. Moreover, satisfaction surveys are an accepted part of HEDIS and the industry as a whole, suggesting that it is unlikely that a plan could exist for long and provide poor service in secret.

Small employers are less likely than large ones to have first-hand experiences with health plans or to have the resources to extensively research plan reputations. Yet, currently we are in an environment of increasing public availability of information. Organizations such as the National Committee on Quality Assurance collect and disseminate health plan performance information, and an increasing number of media organizations produce health plan report cards.

With information readily available, for-profit plans will find it difficult to succeed with a strategy of providing lower quality care (along all dimensions) than consumers are willing to pay for. Some plans may provide above-average quality along certain dimensions, such as a broad physician network or easy access to referrals, at a higher-than-average cost, and some consumers will opt for such plans.

The importance of competition is illustrated by the evolution of the Blue Cross plans. To survive in an increasingly price competitive environment, Blue Cross plans changed. They had to separate hospitals' interests from their own. Blue Cross developed an adversarial relationship with their participating hospitals. They broadened their benefit packages to include less costly outpatient services, introduced utilization review, became a tougher negotiator over prices with hospitals, and formed PPOs and HMOs.

As Blue Cross sought to survive, the motivation of these not-for-profit entities began to change. Blue Cross had to become more like its for-profit competitors. As a result, Blue Cross and Blue Shield plans lost their federal tax-exempt status under the 1986 tax reform legislation. A Government Accounting Office (GAO) report found that the pricing practices of the Blues were similar to those of the commercials, namely: experience rating of large groups; few subsidies for high-risk individuals; and ownership of profit-making subsidiaries. The report found that "all these activities tend to reinforce the perception that the plans are similar to commercial companies". (6)

In an intensely price-competitive market, Blue plans must act similar to their for-profit competitors in terms of efficiency, their provider network, benefit design, and responsiveness to purchasers of health insurance.

The Blues' recent trend toward consolidation is consistent with trends in the rest of the health insurance industry. Health plans require large amounts of capital, and that has been difficult for the smaller not-for-profit Blue Cross plans. (7) Not-for-profit Blue plans need to have greater enrollment growth if they are to be able to generate greater profits. These increased profits are the primary method by which the not-for-profit plans will be able to finance their capital expenditures. The Blue plans will need increasing sums to finance new information systems, attract top executives, and take other steps necessary to remain competitive.

A relatively small Blue plan with a large market share is at a disadvantage with regard to its ability to expand its enrollment to gain additional profits or to take advantage of economies of scale. The Blue Cross trademark provides a Blue plan with exclusivity within its market area. The Blue plans can use the Blue trademark only to market their services within licensed mutually exclusive boundaries, which often are along state lines. While this exclusivity prevents other Blue plans from competing in their market, it also limits a smaller plan's ability to grow by expanding into new markets.

In the current marketplace, not-for-profit Blue plans are at a competitive disadvantage with their for-profit competitors in raising capital and in attracting top executives, who must be paid salaries and stock options comparable with what they would earn in a for-profit firm.

8. Review of Studies

Conclusions from studies measuring quality in non-profit vs. for-profit insurers.

Several published studies have attempted to more rigorously assess impact of ownership on plan performance. Himmelstein et al. (1999) analyze 1996 HEDIS data to assess the role of ownership type on reported quality. (8) They observe data on 329 HMOs, of which 81 are for-profit plans (41 additional plans did not report HEDIS data). Fourteen HEDIS indicators were

examined. Most are measures of screening and preventive service use, such as cancer screening or immunizations. Three of the 14 measures capture specific aspects of care for patients with identified diseases. These include β -blocker prescription for heart attack patients, eye examination for patients with diabetes, and outpatient follow-up for patients who had been hospitalized for mental illness. They also examined financial indicators including cost per member and medical loss ratio, which has been shown to be a poor measure of resource use.

They used linear regression to adjust for the region in which the plan operated, model type, (e.g., IPA, Network, Group, Staff, Mixed or Other) and data collection method. The control variables were generally at high levels of aggregation. For example, only 9 regions were controlled for, and model type is only a crude measure of plan characteristics.

The results suggest that for-profit plans do not perform as well as non-profit plans on each of the 14 HEDIS measures, though results are statistically significant for 12 of the 14 measures. Moreover, although non-profits and for-profit plans had similar costs per enrollee, Himmelstein et al. report that the non-profits spent more on medical services. Data presented in a letter to the editor in response to the Himmelstein article notes that organizational structure, specifically whether the plan was open or closed panel, has a larger effect than profit, but does not refute the notion that ownership status might play a role. (9)

There are several shortcomings of the Himmelstein et al. analysis. Most notably, the analysis fails to adjust for market factors that might influence the results or plan traits other than model type. For example, plan size and age are not controlled for. There are no controls for enrollee demographics or market competition.

Born and Simon (2001) replicate and extend the analysis using similar data for 1997. (10) Because of missing data, they include fewer plans in the analysis. Himmelstein et al. report that

the plans dropping out were likely to be the more poorly performing ones. If they are systematically concentrated among for-profit plans, this will bias the Born and Simon findings.

Nevertheless, Born and Simon examine 9 HEDIS measures, 2 of which were not directly comparable to those used by Himmelstein et al., and do not address the financial measures of performance. The Himmelstein results find statistically significant differences on each of the 7 comparable measures, suggesting for-profits performed worse. The updated analysis, using the same methods as Himmelstein et al., suggests that the effects of ownership type diminished between 1996 and 1997. Specifically, the estimated impact of 5 of the 7 measures diminishes. For example, the estimates using the 1996 data find that for-profit ownership reduces the percentage of heart attack patients receiving β -blockers by 6.5 percentage points. The 1997 data reports an analogous effect size of only 3.6 percentage points, a drop of 45%. Overall, the average effect size drops by about 35%. Moreover, the estimates for 4 of the 7 measures are no longer statistically significant. This might be due to the different sample, but it may also be attributed to changes in the market environment, causing performance measures to converge.

The effects of ownership type drop even further when a richer set of controls, particularly market controls, are included. Competition measures, such as HMO penetration and hospital competition, seem to have an effect, with greater HMO penetration and more hospital competition increasing quality scores. The presence of large employers also appears to increase quality scores. Finally, demographic factors matter. For example, as the share of the market that is non-white rises, quality measures decline.

When these measures, as well as measures of past plan profitability, are included, the results change even more dramatically. Specifically, 5 of the 9 measures now suggest for-profit plans perform better. Two of these 5 estimates are statistically significant. Only 1 of the

coefficients that suggest a worse performance by for-profits is statistically significant. The comparison of the results using the updated Himmelstein specification to that using the same data with a richer set of controls demonstrates that the set of environmental controls is very important.

Landon et al. (2001) perform similar analyses using data from Medicare beneficiaries responding to the consumer assessment of health plans (CAHPS) survey. (11) The analysis controls for patient characteristics, plan traits (including model type, accreditation status, size, and age) and region. They examine three measures of performance: access to care, customer service, and overall plan rating. Each plan is rated on a scale of 1 to 4 for access to care and customer service and on a scale from 1 to 10 for overall rating. The results suggest that local for-profit plans have the most favorable reported performance on all three dimensions, although the statistical significance of the results appears sensitive to how region was controlled for. Substantively, the differences between plan types appear to be small. The predicted differences in mean scores drops by less than 1% for access to care if a local plan is assumed to be for-profit vs. non-profit. The comparable figure for customer service and overall ratings is 2%.

National for-profits had the lowest scores, but it is not clear if the differences from national non-profits were statistically significant. It was ambiguous whether local for-profits performed better than national non-profits. They appeared to perform better on overall rating and customer service, but not access to care. However, statistical tests of the differences were not reported. The authors also note that there was substantial heterogeneity within ownership classification and that many for-profit plans outperform average not-for-profit plans.

9. Empirical Evidence

Plan performance varies widely within ownership types and across quality ratings.

Concern over the behavior of for-profit insurers often focuses on abuse of medical management activities. Given that medical management and ‘price shopping’ are valuable services provided by insurers, assessment of whether for-profit insurers act in undesirable ways must rely on the extent to which such activities are undertaken, relative to consumer demand, as opposed to whether they are undertaken at all.

Most of the comparisons of quality between for-profit and non-profit health plans rely on HEDIS or CAHPS indicators to measure quality. Tables 1 – 5 report the results for key dimensions of performance from the 2001 California health plan report card. Several caveats are worth mentioning before examining the tables. First, although the measures were selected because medical literature suggests that higher scores are better, this does not necessarily mean that consumers are willing to pay what it would cost to improve scores. Consumers may prefer for plans to have lower scores (and lower costs).

Second, plan scores will be sensitive to the characteristics of the enrollees and benefit design (typically chosen by the employer) as well as to initiatives from the plans. These measures are not adequately case mix adjusted. When plans share similar physician networks, as they do in most markets, deviations are unlikely due to differences in how physicians are behaving, though some physicians may base clinical recommendations on a patient’s coverage. Instead, differences likely reflect differences associated with enrollee traits and differences associated with enrollee cost sharing. Health plan influence may be exercised through patient education. Finally, the report cards cannot capture spillover effects between plan types. For example, if for-profit plans push to increase mammography rates by encouraging their physicians

to refer all appropriate patients for mammography, this would likely increase mammography rates for non-profits as well.

Table 1 examines measures in the *staying healthy* domain. This domain is particularly sensitive to enrollee characteristics because most of the measures require initiation of contact with the medical system by enrollees. Non-profits and for-profits appear to be similar for the *check-ups for pregnant women and new mothers* and similar for *breast and cervical cancer screening*. The non-profits score better, on average, for *immunizations* and *screening for sexually transmitted diseases*. Interestingly, Zaslavsky et al. (2000) report that adolescent immunization rates are among measures most sensitive to adjustments for enrollee characteristics. (12) Nevertheless, even in these categories there is considerable overlap among plans in the different ownership types. For example, all but two of the for-profit plans perform as well or better on adolescent immunizations than the non-profit Inter Valley Health Plan. There is even considerable variation within the same company with the for-profit Aetna US Healthcare North performing almost as well as the best non-profit while Aetna US Healthcare South performs below average for both non-profits and for-profits.

Table 2 reports the results for the domain labeled *getting better*. Non-profits perform better on each of the measures, although the differences are generally not very large. Yet again the variance within ownership types is striking. For example, within initiation of Medication for depression, the top two plans are for-profit plans and the for-profit average is pulled down by one poor performing plan (Maxicare).⁵ Moreover, the rankings of plans depend on the measure used. In contrast to the findings from the *staying healthy* domain, Aetna US Healthcare South

⁵ Subsequently Maxicare has declared bankruptcy. Although this may not be related to performance, it is consistent with the view that consumers were not satisfied with the Maxicare product and poor performing plans will find it difficult to survive in the marketplace.

scores better on most measures in this domain than Aetna US Healthcare North. How one would view these plans would depend on how one values the various services.

The *living with illness* (Table 3) domain presents a different picture than the previous two domains. Specifically, the for-profit plans perform better, on average, on 7 of the 10 measures, though again the differences are not very large. There remains considerable variation within plans. For example, on the *asthma medication for adolescents* measure, Western Health Advantage scores half as well as Kaiser Permanente – South, although both are non-profit. Yet for a measure from the staying healthy domain that also deals with health care for adolescents, *adolescent immunization*, Western Health Advantage was in fact the best performing plan.

The fourth domain, *doctor communication and service* shows very similar performance among ownership types (Table 4). The mean scores differ by less than 1 percent for the subset of doctor communication measures. This would be expected since the measures are related to one's physician, and the physicians are largely treating patients of both plan types. Non-profits tend to score better on *getting care quickly*, but the for-profits score better on *shorter office waits* and *getting routine care soon*. In general, the scores have less variation, but for some measures there is noticeable variation within ownership type.

The final domain is *plan service*. Differences between mean scores by ownership type tend to be small (Table 5). In some cases, such as *handling complaints*, for-profits appear on average to score better, but in other areas, such as *information is clear*, they appear to score worse. The key message to take from all of these tables is that there is wide variation in plan performance within ownership type and across ratings.

Some of the variation reported above is likely due to unmeasured differences in the markets in which the plans operate or unobserved plan characteristics. Table 6 provides an alternative

comparison that examines only Blue Cross or Blue Shield plans. This table reports ratings on a 1 to 4 scale, with 4 being the best, in a variety of domains of performance. No consistent pattern emerges, and the sample size is small. Most scores are 3 or 4. The for-profit plans never score lower than a 3 in any domain. Non-profit plans score a 1 or 2 twice for HMOs and once for POS plans.

Part of this difference could be regional variation in the markets served by these plans, so a final comparison is between Blue-Cross and Blue Shield of California (Table 7). Blue Cross (Wellpoint) is for-profit and Blue Shield is non-profit. They serve largely the same market. In the non-Medicare market, the for-profit plan performs better on 3 of the 6 domains (including *accreditation*). The non-profit plan never scores better. In the Medicare market the for-profit plan scores better on 4 of the domains, and the non-profit plan scores better on one domain. Though these differences may not be clinically meaningful, it is clear that on commonly used measures of performance, the for-profit Blue plan performs better, on balance, than the non-profit Blue plan.

Summary Comments on Studies and Empirical Evidence

No one study is conclusive as to how ownership status affects outcomes. Other factors, such as competition and organizational form, are likely to be more important than ownership. Therefore conversion from a non-profit to a for-profit form of ownership, by itself, should not have any adverse effect on health plan outcomes because many quality measures are heavily influenced by physicians, and the impact of changing ownership should not affect quality of care if the physician network is not substantively changed.

Given the competitive market in which health plans find themselves, namely, that health plans compete on the basis of price, service, and their provider network, there is no reason for a health plan that is competing successfully in the marketplace to dramatically change the bases of its success simply because of a change in its ownership. Instead, it is likely that with a change to for-profit ownership, a health plan will attempt to build on those factors that enable it to increase its market share, namely, remaining price competitive, attempting to improve its service, and strengthening its provider network.

10. Concluding Comments

A number of factors other than ownership type influence health plan performance.

As the health care industry continues to evolve, observers struggle with the implications of change. One of the controversial trends is the shift toward for-profit health care providers and insurers. The impact of this shift will depend on the extent of competition. Greater competition will tend to generate convergence in the behavior of the two types of firms.

Pressure from customers, largely employers, forces insurers of all ownership types to strive for cost reductions and will prevent non-profit insurers from achieving non-profit goals. The trend toward for-profit ownership and consolidation among insurers suggests that for-profit insurers may have an advantage in exploiting opportunities for efficiencies.

Because of the large number of variables that affect outcomes, it is difficult to confidently characterize how premiums would be affected by ownership type. For example, whether non-profits charge lower premiums than for-profits will depend on the extent to which cost disadvantages associated with non-profit ownership due to inefficiencies are offset by willingness to charge lower prices than the profit-maximizing premium.

The extent to which reduced costs in the for-profit sector yield lower premiums depends not only on the degree to which non-profits opt not to maximize surplus, but also on the extent of competition. In competitive markets, the discretion non-profits will have in setting premiums, given costs, diminishes. As a result, cost advantages will drive premiums. For this reason, competition between sectors may be particularly important because it provides a disciplinary effect on firms of each type. The existence of for-profit competitors adds to the incentives of non-profit firms to be efficient in their production. Although they would have no incentive to be purely wasteful without competition, the competition from for-profit firms may raise the stakes for non-profit firms in the same market.

Differences in plan quality are also hard to predict. In addition to competition, the availability of information will be crucial in determining how health plans will behave. Because plans of all ownership types use the same provider networks, many important quality indicators will be only marginally related to ownership type. Competition and pressure from employers will tend to force all plans to provide the level of quality they desire, recognizing not only the multiple dimensions of quality, but also the cost/quality tradeoff.

Finally, the difficult financial position many health care providers have found themselves in has been the result of intense health plan competition and an inability of many providers to differentiate themselves from their competitors, not the form of ownership of the health plan. Unless providers are able to improve their bargaining position with their insurers, either through consolidation or by sufficiently differentiating themselves from their competitors so that insurers need to contract with them, their financial position is unlikely to greatly improve. Similarly, there is no reason to believe that their financial position will get worse solely because of a change in ownership.

11. References

1. Timothy F. Bresnahan and Peter C. Reiss, "Entry and Competition in Concentrated Markets," **Journal of Political Economy**, 99(5), Oct 1991: 977-1009.
2. Hannsmann, H, "The Role of Nonprofit Enterprise," **Yale Law Journal**, 89, 1980: 835-901.
3. Kenneth J. Arrow, "Uncertainty and the Welfare Economics of Medical Care," **American Economic Review**, 53(5), December 1963: 941-973.
4. U.S. Senate, Committee on Governmental Affairs, **Hearings On Oversight Of The Insurance Industry: Blue Cross/Blue Shield - Federal Contracts**. August 4, 1994. Text from Federal Document Clearing House Congressional Testimony. Available from Congressional Universe (online Service) Bethesda, MD: Congressional Information Service.
5. Thomas C. Buchmueller and Paul J. Feldstein, "The Effect of Price on Switching Among Health Plans," **Journal of Health Economics**, 16(2), Apr 1997: 231-247.
6. U.S. House, Committee on Ways and Means, Report to the Chairman, **Health Insurance: Comparing Blue Cross and Blue Shield Plans with Commercial Insurers** (Washington, D.C.: U.S. General Accounting Office, July 1986): p. 20.
7. Laura Benko, "Blues of the Nation, Unite: Study Recommends More Mergers for Plans' Survival," **Modern Healthcare**, 31(13), March 26, 2001, p. 26.
8. David U. Himmelstein et al., "Quality of Care in Investor-Owned vs Not-For-Profit HMOs," **Journal of American Medical Association**, 282(2), July 14, 1999: 159-63.

9. Michael Maniccia, Letter, **Journal of American Medical Association**, 283(5), February 2, 2000: 603-604.
10. Patricia H. Born and Carol J. Simon, "Patients and Profits: the Relationship Between HMO Financial Performance and Quality of Care," **Health Affairs**, 20(2), Mar-Apr 2001: 167-74.
11. Bruce E. Landon et al., "Health Plan Characteristics and Consumers' Assessments of Quality," **Health Affairs**, 20(2), Mar-Apr 2001: 274-86.
12. Alan M. Zaslavsky et al., "Impact of Sociodemographic Case Mix on the HEDIS Measures of Health Plan," **Medical Care**, 38(10), October 2000: 981-92.

Tables 1-7