The National Costs of Physician Antitrust Waivers

Charles River Associates Inc.

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Introduction

The Quality Health-Care Coalition Act of 1999 (H.R. 1304), introduced by Representative Thomas Campbell on March 25, 1999, would cause "the antitrust laws [to] apply to negotiations between groups of healthcare professionals and health plans and health insurance issuers in the same manner as such laws apply to collective bargaining by labor organizations under the National Labor Relations Act." This legislation would grant physicians and other health care professionals immunity from both state and federal antitrust laws that generally prohibit collective negotiation by independent competitors over fees and other contract terms, such as utilization review or management protocols.

The legislation is based on the premise that "permitting health care professionals to negotiate collectively with health care plans will create a more equal balance of negotiating power, will promote competition, and will enhance the quality of patient care." Advocates of collective bargaining for health care providers argue that, as a result of numerous consolidations, health plans have gained significant market power in recent years. This market power, it is alleged, has allowed them to negotiate provider payment rates that are so low that providers can no longer deliver the high quality health care services demanded by patients. The proposed legislation is therefore required, it is alleged, to "level the playing field."

This justification for the proposed antitrust immunity legislation ignores three important factors, all of which argue against its merits:

- The legislation will raise health care costs, financed by both the public and private sectors, considerably;

- Legitimate mechanisms exist already in the application of the antitrust laws by which health care providers can collaborate to negotiate with health plans when it is pro-competitive for them to do so; and

- Consolidation among health plans has been subject to substantial antitrust scrutiny of its own, both at the federal and state levels. The health insurance industry remains very competitive, making it improbable, if not impossible, for it to exert significant market power in its negotiations with health care providers.

We discuss each of these arguments below.

Costs of Collective Bargaining Legislation

Legislation that immunizes physicians and other health care providers from antitrust scrutiny opens the door for anticompetitive activities that could raise health care costs by reducing providers' incentives to offer competitive prices and to comply with the cost-effective utilization controls that have enabled managed care organizations to reduce the rate of health care cost inflation substantially. While private health insurance premiums increased by 10.9 percent between 1991 and 1992, by 1996, the annualized rate of increase was only one half of one percent.[1] As managed care plans have enrolled an increasing proportion of private and publicly insured individuals, their effect on overall health care cost trends has become stronger. Legislation that grants market power to an important sector of the health care industry is likely to undermine many of the competitive benefits of managed care, which historically have been passed on to employers and consumers.

Managed care has achieved savings on physician and other professional provider fees for at least two reasons. First, managed care companies have been able to reduce the prices they pay for each provider service by encouraging vigorous competition among providers. In their efforts to attract enrollees, competing managed care plans have passed these savings on to employers and employees. Second, by "managing" the services that are covered, managed care companies have been able to minimize the excessive utilization of medical services that had characterized the industry. Such overuse is common when the amount consumers of a good pay is not directly related to the quantity that they consume, for example, when enrollees pay a fixed health insurance premium regardless of the number and complexity of health services they use. This divergence between the consumer and the payor creates an externality or "moral hazard" characterized by the enrollee who faces lower costs than the value of the services consumed, and, therefore, purchases too much health care. In addition, prior to managed care's introduction of capitation or other forms of risk sharing, the physician also had financial and defensive incentives to encourage the use of too much care. By requiring both subscribers, through copays, and physicians, through risk sharing, to bear some of the costs of a claim, managed care insurance policies have reduced total costs. The introduction of managed care is the private market's partially successful attempt to align physician and consumer incentives to induce cost-effective utilization, thereby reducing costs and improving consumer welfare.

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[1] P. Ginsburg & J. Pickreign, "Tracking Health Care Costs: An Update." *Health Affairs* 16, July/August 1997.

One would expect that if health providers were allowed to bargain collectively, they would attempt to regain some of their lost earnings by negotiating a return to the old rules. Such a return would decrease consumer welfare. Moreover, unions or other physician groups also support the types of provisions that are encompassed by various recent forms of "Patients' Bill of Rights" or "Medical Necessity" legislation, such as "any willing provider" (AWP) and/or "freedom of choice" (FOC) requirements. Such requirements would further reduce managed care companies' ability to contain costs by reducing their ability to "manage" utilization and to negotiate fee discounts. For example, to date, managed care companies have been able to negotiate lower prices with providers in exchange for higher volumes, but if every physician can become part of the network (as is the case of AWP requirements), higher volumes cannot be assured to member physicians. The effect would be to make the health plan a common carrier and to increase costs.[2]

In the cost model below, we estimate a range of likely dollar impacts for each of four related effects: two price effects and two utilization effects. Each estimate within the range reflects a particular scenario; scenarios vary according to the assumptions made about the parameters that define the model, as outlined below.

We predict the annual total dollar impact of the proposed legislation to range from approximately $29 billion up to about $95 billion in increased expenditures for personal health care services (financed by both the public and private sectors).[3] These figures represent from about 2 ½ percent to 8 percent of total personal health care expenditures[4] predicted for the year 2000 in the National Health Expenditures Projections published by the Health Care Financing Administration (HCFA).[5] The percentage impact on annual private health insurance premiums can be expected to be greater since most private insurance is now some form of managed care: premiums are anticipated to rise by approximately 5 to 13 percent. It is reasonable to anticipate that the short-run impact of

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[2] W. Duncan Reekie, "Competition in Health Care: Is it Working?" *International Journal of the Economics of Business*, 4 November 1997, pp. 323-334.

[3] Alternative scenarios of the model produce projected impacts ranging from $22 billion to $130 billion; however, the two most extreme scenarios are probably less likely than the more intermediate values. In all cases, the text focuses on the range of estimates implied by scenarios 2 through 5. The tables indicate the more extreme values.

[4] HCFA reports health care expenditures by both sources and uses of funds. Personal health care expenditures is a broad category of uses which excludes research, administrative costs, and public health activities. Private health insurance is one of the categories of sources of expenditures.

[5] All of the projections described in this report are derived from year 2000 predictions of health expenditures. While the true dollar projections for later years are likely to be higher because of higher anticipated spending in the absence of the legislation, the percentage impact should remain constant.

the antitrust exemption legislation will result in costs toward the lower end of the range, about 2.5 to 4 percent of personal health care expenditures or 5 to 7 percent of private health insurance premiums. In the longer run, larger impacts can be expected as health care providers increasingly gain the upper hand in negotiations with public and private payors, from 6 to over 8 percent of personal health care expenditures and 10 to 13 percent of private health insurance premiums. These effects will persist; the levels of annual health care costs and private insurance premiums will remain higher than they would have been in the absence of the legislation.[6]

Price Effects

The two price effects focus on the increase in physician and other health care provider fees that is likely to occur when providers no longer face the competitive incentive to discount their prices. The first effect measures the costs associated with the anticipated increase in provider payments required of public and private managed care plans[7] when provider discounts are reduced. The second, related effect is a spillover onto the payment rates faced by non-managed (indemnity) insurance arrangements.

Managed care has been credited with achieving provider discounts ranging from 5 to 6 percent with some loosely managed plans to 20 or 25 percent with more tightly managed plans. A review by the Barents Group of studies performed by CBO, Lewin-VHI, and itself found discounts ranging from 6 to 15 percent relative to fee-for-service plans, from which it calculated an "all HMO" average discount of 13 percent.[8] Our estimates of the price effect on managed care include assumptions that the discounts enjoyed by managed care plans range from 6 to 25 percent. We estimate scenarios that reflect six different assumptions about the average level of discounting achieved by managed care: 6 percent, 10 percent, 13 percent, 15 percent, 20 percent, and 25 percent.[9] We assume that from one

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[6] This projected increase in the level of expenses is additional to already projected inflationary increases in premiums.

[7] H.R. 1304 defines a "health plan" as a "group health plan, a health insurance issuer that is offering health insurance coverage, a Medicare+Choice organization that is offering a Medicare+Choice plan, or a Medicaid managed care entity offering benefits under title XIX of the Social Security Act." Section 3d2(A).

[8] Barents Group L.L.C., Impacts of Four Legislative Provisions on Managed Care Consumers: 1999-2003. Report prepared for The American Association of Health Plans, April 22, 1998.

[9] In fact, much of the economic literature on the effects of collective bargaining or unions suggests wage effects that are 20-30 percent. See, for example, N. Rose, "Labor Rent Sharing and Regulation: Evidence from the Trucking Industry." *Journal of Political Economy* 95, 1987; C. Robinson, "The Joint Determination of Union Status and Union Wage Effects: Some Tests of Alternative Models." *Journal of Political Economy* 97 (1989); R. Edwards and P. Swaim, "Union-Nonunion Earnings

half to all of these discounts would disappear if providers were allowed to negotiate collectively, and estimate scenarios that reflect 50, 60, 75, 85, and 100 percent losses of existing discounts by public and private managed care plans. The combined effect of these two assumptions is that provider fees paid by managed care plans would rise somewhere between 3 percent (.5 x 6) and 25 percent (1 x 25). These percentage increases are applied to the provider fees paid by public and private managed care plans.

We base our projected dollar increases in health provider fees on data from the National Health Expenditure Projections, 1999 (based on the National Health Accounts) for the year 2000, published by the Health Care Financing Administration. The National Health Expenditure Projections distinguish among a variety of expenditure categories. For estimating the possible effect of the antitrust exemption on health provider fees paid by managed care organizations, we rely on projections of expenditures on Physician Services, Dental Services, and Other Professional Services as the legislation focuses on all health providers. [10]

We consider fee increases affecting managed care plans covering privately insured as well as publicly insured individuals. We estimate the proportion of private expenditures for physicians attributable to managed care plans as approximately 85 percent.[11] ` To be

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Differentials and the Decline of Private-Sector Unionism." *American Economic Review* 76 (May 1986).

[10] Estimates of the fees paid by managed care plans are a composite of data from several sources. We base the estimate of the effect on private spending on HCFA's projected 2000 spending for physician, dentist, and other health professional services by private insurance. A portion of out-of-pocket expenditures is grouped with private managed care payments.

[11] We assume, based on a variety of studies, that 85 percent of physician payments are through managed care plans. In a study prepared for AAHP, Barents Group assumes a 70 percent penetration rate but argues that 85 percent is a more current estimate. Mercer/Foster Higgins National Survey of Employer-sponsored Health Plans, 1998 reports a rate of 87 percent. *Health Affairs*, January/February 1998, reports a rate of 81 percent. KPMG Peat Markwick's Health Benefits in 1998 reports that 86 percent of employees are in managed care plans. Most recently, the Kaiser Family Foundation/Hospital Research and Educational Trust (KKF/HRET) Employer Health Benefits 1999 Annual Survey estimated that 91 percent of all covered workers are enrolled in some type of managed care plan. The 85 percent figure that we use is derived as the proportion of privately employed individuals enrolled in managed care adjusted for the differential between average per capita premiums for managed and indemnity enrollees. The KKF/HRET report provides the data necessary to estimate this adjustment. It identifies the annual cost per employee for a: traditional indemnity plan, PPO, POS, and HMO. The survey also reports the percentage of employees enrolled in each type of plan. This information is used to estimate the average per-employee cost of a managed care plan (a weighted average of the costs of PPO, POS, and HMO plans). The ratio of managed care costs to traditional indemnity costs is .932. The portion of expenditures attributable to managed care is adjusted down using this ratio based on the assumption that managed care plans achieve some cost savings. It is worth noting that the implied estimate of a 7 percent savings attributable to managed care is lower than

conservative, we assume that only half of this percentage (42.5 versus 85) of out-of-pocket expenditures are associated with managed care enrollees. We calculate the proportion of Medicare and Medicaid based on data available from HCFA on the proportion of each program's expenditures attributable to their risk plan enrollees.[12] We assume that the same percentage of public expenditures (other than Medicare or Medicaid) is managed as for private insurance expenditures, since these expenditures are primarily workers' compensation and military programs, both of which are commonly covered by private managed care.

We follow an analogous methodology for estimating the proportion of dentist and other health provider fees attributable to managed care. To be conservative, we assume that half of the percentage of physician expenditures in each category that is attributable to managed health care is appropriate for dentists and other health providers. That is, we define approximately 45 percent of expenditures on dentists and other health professionals as managed.[13]

Our estimates of the annual costs of antitrust immunity in terms of higher health care provider fees charged to managed care plans range from $10.8 to $30.7 billion. These figures imply that total expenditures on health provider services will increase by 2.7 to 7.7 percent of total expenditures on health professionals and by .9 to 2.7 percent of total personal health care expenditures.

We assume that the vast majority of the effect of an antitrust exemption on fees negotiated with providers will impact managed care plans and, as a result, employers and their employees. A spillover effect, however, will also occur if increases in managed care fees occasion a rise in the price paid by private indemnity plans or public fee-for-service programs. In the case of fees, we assume the spillover is small, ranging from zero

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many others cited in this report. The Mercer study is based on a limited set of employers and does not account for any systematic differences in health status between managed and indemnity enrollees.

[12] We use HCFA figures on total Medicare and Medicaid expenditures as well as the proportions that cover enrollees in risk-based programs. The Profile of Medicare Chartbook reports that 13 percent of Medicare expenditures were for managed care in 1996. A more recent figure cited in the *Wall Street Journal* (2/21/99) suggests that 15 percent of Medicare beneficiaries in 1998 were enrolled in risk programs. The 1998 HCFA 64 reports Medicaid expenditures attributable to managed care as 10.4 percent of the total. In the case of Medicaid managed care expenditures, the proportion (10.4 percent) reflects estimates collected from the states. This figure may be somewhat conservative, since approximately 40 percent of all Medicaid enrollees belong to managed care plans.

[13] We do not have data that address directly the percentage of dental and other professional fees that are covered by managed care.

to 10 percent of the price increase absorbed by managed care.[14] We also assume that public fee-for-service payors, which generally pay based on established fee schedules will not face a fee increase. This assumption may also be conservative, particularly since we use current Medicare and Medicaid risk plan penetration rates, even though the managed segment of these programs is growing rapidly. The spillover effect ranges from $.4 to $2.1 billion.

Combining the measured effects of fee increases both on managed care expenditures directly and as a spillover to indemnity payments results in an estimated annual increase in expenditures for health care providers of $11.2 to $32.8 billion.

Utilization Effect

The very title, Quality Health-Care Coalition Act of 1999, implies that the legislation is intended to permit collective negotiations not only on the basis of price, but also on the types of services that managed care organizations will be required to cover. Therefore, it is reasonable to expect that the legislation would permit physicians and other health care providers to demand that managed care organizations cover the same types of services outlined in many of the related pieces of legislation currently under debate that are labeled "Patients' Bill of Rights" acts.

While the fee impact of an antitrust exemption for physicians and other health providers is likely limited to the services that they provide directly, the legislation's impact on service utilization has much broader implications. Health providers such as physicians or other professionals are responsible for ordering the vast majority of services consumed by patients. To the extent that the legislation reduces managed care plans' ability to maintain policies that providers do not support, its impact on utilization of all managed health care services could be substantial. Moreover, to the extent, as suggested by several studies, that there are substantial "spillover" effects from managed care to fee-for-service settings in utilization patterns, any change in the ability of managed care plans to "manage" care will affect the entire health care sector (including traditional programs).

Several estimates exist of the costs associated with various patient protection and bill of rights proposals. These other pieces of legislation generally focus on particular services, such as emergency room care or specialty services. Therefore, the cost increases that they postulate that are attributable to the legislation's anticipated effect on utilization are likely to be smaller than those that could occur, if, in the long run, managed care plans lose all control over utilization because of the proposed antitrust exemption. In that case, it is possible that all the savings attributable to managed care would disappear, not only

[14] For example a 5 percent spillover implies that for a 10 percent increase in the fees paid by managed care plans, indemnity prices would increase by ½ of 1 percent.

for managed care plans but also for all payors and their enrollees. While this prediction may seem extreme, it is a useful scenario to consider.

The Barents Report, cited earlier, reviews various estimates of the utilization savings attributable to various forms of managed care relative to traditional fee-for-service indemnity coverage. It finds savings ranging from 4 to 18 percent from utilization management activities, depending on the type of plan. Based on relative enrollments, the weighted average of these effects is 6.8 percent. Barents also attributes an additional 4 percent savings to utilization review, regardless of the nature of the managed care arrangement. The technical expert panel that it convened agreed that somewhere between 60 to 90 percent of these savings could be lost if legislation making such activities less permissible were enacted. Based on these findings, we posit a range of costs resulting from increases in utilization attributable to the antitrust exemption ranging from 3 to 9.7 percent.[15] This increase in utilization is expected to apply to both private and publicly funded managed care plans. It is expected to occur across all services to some extent, although the impact may be anticipated to be most substantial on the services provided directly by the professional providers for whom the legislation is designed.[16]

We estimate the potential dollar increase in expenditures resulting from reduced ability to perform utilization review and management activities from the National Health Expenditures Projections for the year 2000 for all personal health expenditures. The dollar estimate ranges from $16.2 to $43.1 billion annually, or 1.4 to 3.7 percent of total personal health expenditures.

Various studies suggest that the utilization review and management activities practiced by managed care have had spillover effects onto the practice of medicine that is still reimbursed on a fee-for-service basis.[17] That is, health care providers tend not to have

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[15] Applying Barents Group's analysis to the issue at hand results in an estimated cost increase due to increased utilization of health care services of between 6.5 percent and 9.7 percent. However, to the extent that health providers do not reclaim complete control of medical decisions from managed care companies and/or that their control does not affect utilization of all health care services, the increase in costs will be smaller. Therefore, we posit that the cost increase that would result from increased utilization falls within the range of 3 percent to 9.7 percent.

[16] The more modest estimates of increased utilization account for a smaller impact on the cost of increased utilization of other health care services than on those provided by health professionals.

[17] See, for example, L. Baker, "The Effect of HMOs on Fee-for-Service Health Care Expenditures: Evidence from Medicare." *Journal of Health Economics,* 1997; D.J. Gasket and J. Haley, "The Impact of HMO Penetration on the Rate of Hospital Cost Inflation, 1985-1993." *Inquiry* 34, Fall 1997; T. M. Wickziger and P.J. Feldstein, "The Impact of HMO Competition on Private Health Insurance Premiums, 1985-1992." *Inquiry* 32, Fall 1995.

multiple practice styles that depend on the source of payment, but rather practice reasonably uniformly. Therefore, to the extent that utilization increases in the managed care sector, at least some increase in utilization in the non-managed sector should be anticipated as well. We estimate that the spillover utilization increase ranges from zero (no spillover) to half of the utilization cost increase that would be experienced by managed care. This results in up to an additional $19.6 billion, or 1.7 percent of total personal health care expenditures.

Summary of Cost Increases

Table 1 presents the dollar cost increase estimates from each of the four components under six different combinations of assumptions (each of which is labeled a "scenario"). For each scenario, the cost effects are provided for private insurance, all private and public expenditures, and for private and public combined.[18] The results do not account for such "second order" effects as the tax consequences that depend on who bears the private sector cost increase.[19] Nor do they account for the interaction between price and utilization effects,[20] or the effect of higher health care premiums on the number of uninsured.[21]

Table 2 presents the same results as a percentage of private and public health expenditures, as well as on private health insurance premiums. In each case, percentages are taken of the expenditures in question; for example, the percentage impact on private insurance expenditures is calculated from a base of all private health insurance

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[18] There is nothing "magic" about the six scenarios chosen; rather, they reflect combinations of parameters that seem to be potentially reasonable alternative scenarios. Other combinations are also possible but produce similar estimates of impact as the ones presented.

[19] Private health plans will presumably pass on the cost increases in the form of higher premiums to employers. Whether employers bear the additional burden or pass it on to employees in the form of lower wages will affect total tax collections. Most researchers assume that most of the cost increases will be passed on.

[20] That is, higher health provider fees will be applied to a larger number (higher utilization) of provider services, compounding the aggregate effect on cost.

[21] As prices increase, consumers (employers and individuals) may reduce their purchases of health care. Some consumers may discontinue their health care coverage. While our estimates do not reflect this effect, to the extent it occurs, the newly uninsured will likely respond in one of two ways: join public assistance programs and/or seek high cost health care services through the emergency room. In either case, a larger portion of the cost burden will fall on the public sector. Therefore, the magnitude of aggregate spending subject to the effects of collective bargaining legislation may not change significantly. Moreover, these individuals will receive health care coverage that they find less preferable to the coverage they would otherwise have received.

expenditures. It should be noted that the approximately $17 billion in expenditures by the FEHBP program are included in private health insurance rather than public expenditures.

The total predicted annual impact ranges from about $29.2 billion (when provider fees increase by 6 percent, utilization increases by 3 percent, and there is a 5 percent spillover effect on price and a 10 percent spillover effect on utilization) to $95.4 billion (when prices increase by about 17 percent, utilization rises by 8 percent, there is a 10 percent price spillover, and a 40 percent utilization spillover).

Both tables distinguish between the legislation's likely impact on private and public spending based on the sources of funds reported in the National Health Expenditure Projections. Between approximately 70 and 80 percent, depending on the particular scenario, of the expected incidence will fall on the private sector. We also distinguish between direct and spillover effects, with the latter accounting for about 8 to 23 percent of the total predicted increase in costs.

As a basis of comparison with other studies, Table 2 also presents the impact on private health insurance premiums. This impact ranges from 4.7 percent to 13.2 percent of predicted year 2000 premiums. Given the competitive nature of the health insurance industry, it is anticipated that this impact would be passed on in the form of higher premiums to employers. Higher premiums would, in turn, likely be at least partially passed on to employees.

In the short run, the more conservative scenarios are likely more appropriate predictions of the likely effects of the antitrust immunity legislation. As new patterns of negotiations between providers and plans become more established, the larger predictions may be increasingly likely.

Current Antitrust Enforcement of Provider Networks

The analytical framework used by the antitrust agencies to evaluate collective negotiation by physicians over price and price-related terms is primarily set forth in Statements 8 and 9 of the Federal Trade Commission and Department of Justice Statements of Antitrust Enforcement Policy in Health Care, most recently updated in 1996 (Statements).[22] As FTC chairman Robert Pitofsky noted last year, the statements "have been widely cited for

[22] While health care is the only industry in which the antitrust agencies have issued industry-specific Statements, the agencies emphasize that these Statements are meant only to clarify the application of standard antitrust principles to the health care area and are not meant to indicate there is more lenient or more strict application of the antitrust laws in such markets.

reducing uncertainty and recognizing that a wide range of joint activities by health care providers potentially can be pro-competitive and benefit customers."[23]

Below, we discuss the analytical principles set out in these Statements as well their practical application to current antitrust policy enforcement. Overall, many types of physician networks are regarded as lawful by the agencies, provided these organizations also create value for their customers and do not pose a substantial threat to competition.

The Health Care Statements

The Statements first describe those types of physician networks in which collective fee negotiation will not be challenged by the agencies absent extraordinary circumstances. The Statements strongly emphasize that these safety zones are not meant to establish ceilings on the types of physician activities that are considered lawful, but rather establish floors below which collective negotiation by physicians will not be challenged.

Two criteria must be met in order for physician network joint ventures to qualify for these so-called "safety zones." The first is that all physician-owned organizations that wish to engage in collective fee negotiation must "share substantial financial risk." The sharing of financial risk is primarily manifested in the way in which the network, or each individual physician within the network, is compensated. The key element is that compensation must somehow be tied to the performance of the entire group.[24] Financial risk sharing is not an end in itself. Rather, what is important is that such financial risk sharing is likely to affect physician incentives in a way that will encourage them to engage in a broad range of efficiency generating activities relating to clinical, as well as business, operations. Further, since they are at risk for the performance of the group as a whole, collective control over the financial terms at which the group sells it services can be justified as well.

The second criterion that must be satisfied in order for collective negotiation by physicians to qualify for safety zone treatment concerns the market share of the venture. Thus, when a network is exclusive, and meets the financial risk-sharing criterion discussed above, the network must encompass no more than 20 percent of the providers in the relevant market(s) to qualify for safety zone treatment. On the other hand, if the

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[23] Robert Pitofsky, Prepared Statement of Federal Trade Commission Concerning H.R. 4277, The Quality Health-Care Coalition Act of 1998. July 29, 1998.

[24] The Statements also emphasize that the examples of financial risk sharing enumerated therein are not meant to be an exhaustive list and that it is not the agencies' intention to drive the form or structure of physician networks. Indeed, in 1996 the Statements were revised to list several forms of financial risk sharing not included in the previous versions.

financial risk-sharing criterion is met, and the network is non-exclusive, a 30 percent threshold applies.[25]

The Statements also make it clear that physician networks that do not qualify for "safety zone" treatment are often also lawful. Thus, the Statements indicate that physician joint ventures that share substantial financial risk, but fall outside the market share thresholds, even significantly so, may be procompetitive depending on a number of factors, such as the number of physicians in an area, the circumstances surrounding the formation of the venture (e.g., whether the venture formed at the initiative of payors rather than providers), the degree of exclusivity, steps taken to prevent anticompetitive spillovers, and the number of competitors to the proposed venture.

Similarly, the Statements emphasize that ventures that do not share financial risk may also be lawful, if the venture creates significant efficiencies. This can be true even when its membership exceeds the market share thresholds. Indeed, the revised versions of the Health Care Statements issued in 1996 have significantly expanded the discussion regarding the types of arrangements that establish such efficiency potential.

The Statements also describe how physician organizations that do not wish to share substantial financial risk or otherwise integrate can still lawfully offer their services to employers and third-party payors using one of several types of "messenger models." The key ingredient underlying these messenger models is that the messenger must not negotiate on the providers' behalf nor should it in any way facilitate an agreement among competitors on prices or price-related terms.

Antitrust Policy in Practice

The actual application of antitrust policy to the health care area is manifested in various consent agreements negotiated by the agencies with physician organizations and through the agencies' Business Review and Advisory Opinion processes. It would appear that enforcement actions have only been brought against organizations whose structure and conduct indicated they posed a substantial threat to competition without any significant offsetting efficiency potential. Nevertheless, as evidenced by the agencies' Business

[25] Because physician networks may represent themselves as non-exclusive while behaving in an exclusive manner, the agencies lay out several criteria that must be met beyond a simple declaration of non-exclusivity. However, it may be difficult to establish the fact of non-exclusivity when managed care has not yet penetrated an area. The Statements recognize this dilemma and lay out several scenarios where a physician network can establish the fact of non-exclusivity even in situations where such a network constitutes the first managed care entrant to an area. For example, example 6 regarding physician network joint ventures discusses an IPA with more than 30 percent of the physicians in a rural area where managed care has not yet entered that appears, nonetheless, to be non-exclusive.

Review and Advisory Opinion processes, it would appear that a number of types of physician network arrangements are lawful.

Consent Decrees

The agencies have prosecuted only a handful of physician network joint ventures through the years. These entities involved physician groups holding extremely high market shares that were involved in arrangements that indicated they were cartel devices aimed solely or primarily at increasing prices and that held out very little prospect of efficiency benefit.

For example, in 1996 the FTC took action against Montana Associated Physicians Inc. (MAPI). According to the FTC's complaint, there were approximately 115 physician-shareholders in MAPI who comprised approximately 43 percent of all physicians in Billings, Montana, and over 80 percent of all "independent" Billings physicians (those who were not part of a large multispecialty physician practice known as the Billings Clinic or employed by a hospital). The physicians agreed to settle charges that MAPI acted as a group to delay the entry of managed care into Billings and to raise the prices its members would accept from insurers. Among the actions cited in the complaint was that when a PPO sought to collect fee information from MAPI members in order to devise a proposed fee schedule, MAPI urged its members to submit prices higher than they currently were charging in order to inflate said fee schedule.

Another recent example involves the North Lake Tahoe Medical Group, Inc. The physician membership of this organization comprised at least 78 percent of the physicians in a market designated as the North Lake Tahoe area of California and at least 70 percent of the physicians in a market designated as the South Lake Tahoe area of California. Among the actions cited in the complaint was that the organization encouraged its members to departicipate from a Blue Shield PPO and threatened area employers that few of its members would continue to participate with Blue Shield, and that these employers should contract with payors that had agreed to contract with the IPA.

As exemplified in the preceding examples, there are clearly cases where physician networks have been little more than cartel devices, and continued antitrust enforcement in this area appears warranted.

Advisory Opinions and Business Review Letters

In order to reduce the inevitable uncertainty associated with antitrust enforcement, the agencies have indicated that persons seeking guidance regarding the legality of their conduct can take advantage of the Department of Justice's "Business Review Letter" procedure or the Federal Trade Commission's "Advisory Opinion" procedure. These processes do not appear particularly

burdensome[26] and generally provide quick turnaround.
Since the 1996 version of the Statements was issued, the agencies have issued 10 opinions involving horizontal agreements among physicians; they approved all of these[27]. These business letters and advisory opinions attest to the numerous types of lawful physician organizations that appear to be forming in the marketplace, including multi-specialty and single specialty networks; networks of various sizes (ranging from 11 physicians to over 250), and networks in rural as well as all sizes of urban areas. Almost all of the networks addressed in these opinions were non-exclusive in nature and almost all involved financial risk sharing of some type.[28] Many of the review letters described numerous other ways they would seek to control costs and generate value for their customers.

Also of interest is that most of the organizations approved by the agencies exceeded the market share thresholds established in the safety zones, often by a substantial amount. For example, in its May 14, 1997, advisory opinion for Yellowstone Physicians L.L.C., the FTC approved a venture that proposed to contract with 39 percent of the active physicians in the Billings, Montana, area and considerably higher percentages in some specialties. Indeed, in the area of general surgery, Yellowstone proposed to have 64 percent of the general surgeons as participants, though those surgeons practiced in three different practice groups.

Current antitrust policy appears to offer physicians significant scope to form organizations that can engage in collective negotiation provided those organizations do not pose a substantial threat to competition and provide value for their customers. Indeed, as seen in the agencies' business letters and advisory opinions, such organizations can be viewed as lawful even when they exceed the market thresholds laid out in the Statements, even by a significant amount. Nevertheless, as evidenced by the agencies' enforcement actions, physician-controlled networks can well be cartel devices whose sole purpose is to increase prices or forestall the entry of managed care. Thus, continued

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[26] For a list of the materials required see Judith Moreland, "Overview of the Advisory Opinion Process at the Federal Trade Commission." Speech presented at the National Health Lawyers Association, Antitrust in the Healthcare Field, Washington, DC, February 13-14, 1997.

[27] The following opinions specifically involving horizontal networks involving physicians (as opposed to horizontal agreements among providers in general) were issued during this time period: Sierra CommCare, Inc. (8/15/96); Cincinnati Regional Orthopedic and Sports Medicine Association (10/4/96); Santa Fe Managed Care Organization ("SFMC") (2/12/97); Southwest Orthopedic Specialists (6/10/97); Vermont Physicians Clinic (7/30/97); First Priority Health System ("FPHS") (11/3/97); Heritage Alliance/Lackawanna Physicians' Organization (9/15/98); Yellowstone Physicians LLC (5/14/97); Phoenix Medical Network, Inc. (5/19/98); and, Associates in Neurology, Inc. (8/13/98).

[28] Two exceptions were Sierra CommCare, Inc. and Santa Fe Managed Care Organization, which indicated that for contracts not involving risk, the messenger model would be utilized.

vigilance still appears warranted to ensure that innovative cost and quality assurance efforts in the physician services area will continue.

Competition Among Health Plans

Competition remains intense among health plans. In most markets, the concentration of health plans is low. No single managed care company is in a position unilaterally to increase the price of health care coverage above the competitive rate. Any attempt by a single plan to increase prices above the competitive level would be offset by its competitors (HMO, POS, and PPO, and traditional health insurers) taking the opportunity to grow their businesses at the expense of the plan attempting to raise its rates. Similarly, any attempt by a single plan to decrease the rates it pays providers below the competitive level would be offset by its competitors taking the opportunity to grow their businesses at the expense of the plan attempting to reduce its fees paid to providers.

Health plan markets are not highly concentrated. In virtually every market, there are numerous players, all providing services that cover a continuum of options. Plans vary in specifics, such as copays, formularies, deductibles, etc. Still, despite the lack of homogeneity of the products offered, plans compete with one another for enrollment. Any measure of concentration must both identify all firms providing health care coverage and quantify the number of enrollees in each firm. In reality, it is nearly impossible to obtain this information. For example, although it is possible to obtain detailed information on commercial HMO/POS enrollment data from InterStudy[29] and Medicare and Medicaid HMO enrollment data from HCFA, there is no reliable private or public source of information concerning PPO or self-funded HMO enrollment.[30] Yet, even using incomplete data limited to HMOs that are available, it is evident that the industry is not concentrated in most areas. For example, of the 316 Metropolitan Statistical Areas (MSAs) for which InterStudy provides HMO enrollment data, 184 have at least five HMOs competing with one another. Over 100 MSAs have eight or more HMOs competing. Many MSAs have in excess of ten HMOs competing with one another.[31] Most of the MSAs with few plans have low HMO penetration and/or small populations.

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[29] Interstudy Publications, MSA Profile Database version 8.2, January 1, 1998.

[30] Although InterStudy does collect PPO data, the company recognizes that its PPO enrollment data are incomplete.

[31] In this business, each health plan must be viewed as a competitive threat. Unlike firms that produce widgets, health plans are typically not capacity constrained. For example, if a particular health plan were to win a large contract, it could readily increase the size of its physician panel and/or rent a physician network. Expansion can be accomplished rapidly. As a result, using current shares to measure concentration overstates the likely market power that a large plan would have.

Not only are there many companies already in the business of selling health care products in nearly every MSA, entry is relatively easy. Despite physicians' allegations to the contrary, both industry analysts and academics recognize this fact. For example, Geoffrey E. Harris, managing director for Salomon Smith Barney, noted recently that the number of HMOs competing in local markets grew from 550 in 1993 to 800 by the end of 1998.[32] Professors Deborah Haas-Wilson and Martin Gaynor also found that, "potential entrants into the market for insurance do not appear to be scarce."[33] Growth has been very rapid during profitable periods. Any current absence of growth should be attributed to a lack of profits at this time, not to barriers to entry.

Competition leads both to low prices for consumers and to efficient production. With no monopoly profits to be earned, companies can only stay in business if they minimize the costs of production. Society benefits from competition because resources are allocated to where they are most valuable. Consider, for example, Ocean State Physicians Health Plan's successful entry into Rhode Island. Ocean State, like many other managed care plans, was able to erode the incumbent's (in this case, Blue Cross Blue Shield's (BCBS)) near-monopoly market share by introducing a plan with lower reimbursement rates to physicians. The strategy was extremely profitable and forced BCBS to renegotiate lower physician fees. Consumers directly benefited because prices for health care coverage declined.[34]

Similarly, competition prevents any health plan from being able to earn excess profits by reducing fees to physicians below competitive rates. If a health plan attempted to pay less than the competitive wage to its providers, both existing firms and entrants would use this as an opportunity to increase their market shares. Since very few physicians sell their services exclusively to a single managed care plan, physicians would readily encourage their patients to switch their coverage to a plan where the physician earned higher fees. Patients are far more loyal to their doctors than to their managed care plans. The fact that competition prevents health plans either from earning excess profits to the detriment of either consumers or health care providers is an example of what Adam Smith termed the “invisible hand” at work.

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[32] “Wall Street Comes to Washington: Analysts' Perspectives on Health System Change.” Issue Brief, Center for Studying Health System Change, No. 17, December 1998.

[33] Deborah Haas-Wilson and Martin Gaynor, “Increasing Consolidation in Healthcare Markets: What Are the Antitrust Policy Implications?” *Health Services Research* 33, December 1998, Part II.

[34] Lawrence G. Goldberg and Warren Greenberg, “The Response of the Dominant Firm to Competition: The Ocean State Case.” *Health Care Management Review* 20, Winter 1995.

The Formation of a Cartel Would Be Unsuccessful

There is also no evidence that managed care plans have colluded in the past, or would be able to collude in the foreseeable future. Economic theory suggests that as the number of firms increases, the likelihood of successful collusion declines, because the more members in a cartel, the more difficult it is to agree on what price to charge and/or who may sell the restricted quantity of the product. Enforcement is also more difficult as the number of members grows. Moreover, as the number of purchasers (in this case, employers and individuals) increases, the likelihood of successful collusion declines. With many buyers making independent purchase decisions, it is difficult to determine whether increased sales by a particular firm (plan) occurred randomly or if those sales should be viewed as evidence of that firm's (plan) "cheating" on its fellow cartel members by offering lower prices (or higher quality) than that agreed upon by the cartel. Managed care is characterized by both many sellers and many buyers. Over the past several years, the identity of who offers health care plans has changed as firms have entered and exited. On the buyer side, many employers switch the plan or plans they offer to their employees relatively often. Any attempt to collude in this market would be extremely difficult.

Moreover, the low profit margins experienced by many managed care organizations in recent years hardly suggest cooperation, either explicit or implicit. According to InterStudy, in 1998, in over two thirds of the MSAs, HMOs, as a group, were unprofitable. That is, in 213 MSAs, the HMOs, as a group, had negative operating margins.[35] In that same year, *Business Insurance* reported that stock prices of the health maintenance organizations it tracked declined 1.82 percent. By March of this year, the group's stock price had declined another 5.45 percent.[36]

Antitrust Laws Are Applied to Health Plans

Both federal and state antitrust laws are applied vigorously to health plans. Given the importance of this industry to consumers, each proposed acquisition receives careful scrutiny, with both private and public parties given ample opportunity to raise any concerns they might have. Although some mergers have been completed virtually unchallenged, this does not imply that they were not reviewed by the antitrust agencies, but rather that no competitive issues were identified. Others have gone forward only after federal and/or state agencies have been assured that the proposed merger would have no anticompetitive consequences.

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[35] Operating margins equal premium revenues minus medical and administrative expenses.

[36] "Analysts Predict Improved HMO Stock Performance," *Business Insurance*, March 22, 1999.

In at least one instance, this has meant that the companies were required to divest certain plans. In June 1995, United HealthCare announced its intention to acquire MetraHealth. While the main effect of the merger was to provide United with a presence in additional markets, in St. Louis, the merger would have resulted in the post-merger company having what state authorities worried was too large a share of managed care enrollment. As a result, the Missouri Department of Insurance ordered United HealthCare to divest its MetraHealth subsidiary in the St. Louis area. To avoid litigation that might have postponed or jeopardized the merger, United agreed.

In 1998 United HealthCare and Humana entered into merger negotiations. Both the DOJ and several states expressed an interest in better understanding whether the merger might reduce competition. The investigation was cut short by the two companies' decision not to proceed with the merger.

Later in 1998, Aetna US Healthcare announced it intended to acquire Prudential's health care division. The proposed acquisition of Prudential by Aetna has received careful scrutiny, both by the federal and state regulators. In response to the initial Hart-Scott-Rodino filing submitted by the merging parties, the DOJ issued an extensive second request requiring Aetna, alone, to provide to the DOJ more than 300 boxes of materials and more than one million pieces of paper for the government's review.[37] After nearly seven months, the Department of Justice and the Texas attorney general required divestitures in Dallas and Houston prior to approving the transaction. The merger was not completed until all regulators were sufficiently comfortable that it would not be problematic for consumers.

Physicians Are Increasingly Joining Large Groups

In recent years, physicians are increasingly joining large groups. Factors encouraging consolidation include reduction in transactions costs in negotiating contracts with managed care companies, risk sharing, and the need to purchase expensive equipment. Approximately 60 percent of physicians belong to groups with three or more physicians; these figures are expected increase dramatically in the next few years.[38] Many practice groups have several hundred physicians.

Large groups are especially effective when bargaining with managed care companies. In many geographic areas, it is nearly impossible to offer a plan that does not include one or

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[37] "Aetna Chief Frustrated by Long Review of Planned Acquisition of PruCare Unit," *Wall Street Journal*, May 7, 1999.

[38] "Wall Street Comes to Washington: Analysts' Perspectives on Health System Change," Issue Brief, Center for Studying Health System Change, No. 17, December 1998.

more particular physician groups. This fact enhances the bargaining power of these (and other) large physician groups, counterbalancing any power that a health plan might attempt to exert over doctors. It is in physicians' interests to sign contracts with every managed care company willing to pay competitive fees. In this way they can offer their existing and prospective patients the maximum flexibility possible.
Consider, for example, the dispute between Aetna and the Genesis Group in Dallas, a dispute that arose, in part, from Aetna's "all product" policy. In protest to the requirement that every doctor who contracted with Aetna to participate in any Aetna physician panel must participate in all Aetna physician panels, Genesis Group, and its 748 doctors, terminated its contract with Aetna.[39] Thus, despite Aetna's size, the company learned it was far from the "only game in town." Indeed, the Genesis Group had contracts with over 80 other managed care companies.[40] This abundance of contracts permitted Genesis to encourage its doctors' patients to switch health plans so that they would not have to switch physicians.[41] The press documented the group's success, for example, noting that one human resources director acknowledged that, rather than wait for employee complaints, she added another plan that included the Genesis Group. The papers also reported that Dr. Shouse, vice chairwoman of the Genesis Physicians Practice Association, noted that a physician could expect to drop Aetna with little or no change in cash flow.[42] In contrast, Aetna lost enrollment and revenues from the Genesis departure.

Health plans understand the importance of large physician groups. According to Tony Van Roekel, president and general manager of CIGNA Texas and Louisiana, "We put a big emphasis on the importance of a win-win relationship with the physicians as individuals and as members of larger groups. When physician groups terminate particular plans because of disputes or other reasons, the loss is very significant to the patients the plan serves."[43] Similarly, Pat Feyen, president of PacifiCare Texas noted, "With the size of physician organizations, the potential loss of one large group is a significant issue for any health plan product. It really puts the impetus on full disclosure,

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[39] Aetna was able to get some Genesis doctors to sign individual Aetna contracts.

[40] Joanne Wojick, "400 Dallas Doctors Walk Out on Aetna." *Business Insurance*, October 26, 1998.

[41] In 1995, 62 percent of insured workers were offered two or more health plans (up from 52 percent in 1993), and 84 percent of insured employees at firms with greater than 200 workers had choice of health plans. Gail Jensen et al., "The New Dominance of Managed Care: Insurance Trends in the 1990s." *Health Affairs* 16, January/February 1997, pp. 125-136.

[42] Lisa Tanner, "Physicians Playing 'Power Game' with Health Insurers." *Dallas Business Journal* 21, No. 49, p. 8.

[43] The Gale Group, "Genesis Doctors Challenge Aetna Direct Contract Numbers, Offer Suggestions for Patients Affected by Physician/HMO Dispute." PR Newswire, September 3, 1998.

good working relationships and setting expectations between the physician group and the health plan up front."[44]

Finally, the presence of large physician groups as well as loosely structured IPAs facilitates an entrant's ability to establish a provider network because there are fewer entities with which a plan must contract and resulting reduced transaction costs. For example, by negotiating with only three Houston physician groups, Baylor, MD Anderson, and the University of Texas, an entrant could build a provider network with approximately 1,500 physicians.[45]

Bilateral Market Power

Physicians argue that they must be permitted to form unions in order to negotiate on a more equal footing with health plans. Even assuming that it were true that a health plan had monopsony power over physicians, permitting physicians to form a union to bargain with that health plan (e.g., to countervail the monopsony power by permitting the physicians to become a monopoly) will not necessarily lead to a better outcome, either financially or clinically, for patients. Whether society as a whole would benefit or be worse off depends on the responses of all the players (plans, employers, providers, and patients) in that particular market. A priori, it is impossible to know whether this "second best" solution would lead to an improvement or a deterioration in the allocation of resources.

It is even more difficult to predict the effect on society's welfare that the formation of a physician union would have if physicians do not sell their services to a single health plan but instead sell to a few health plans in a given market. Since there is no general theory regarding the welfare effects of oligopoly, it is not possible to draw any conclusion about when encouraging the existence of countervailing power is likely to help or harm society.[46]

Conclusion

Managed care has played a substantial role in the reduction in the rate of health care spending growth that has occurred over the last decade. It has accomplished this

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[44] Charles Ornstein, "Aetna Has Little Luck Re-signing Doctors." *Dallas Morning News*, September 1, 1998.

[45] Harris County Medical Society, "Impact of Aetna Merger on Houston Physicians, A Report by HCMS." http://www.hcms.org/aetna/mainpage.htm, March 31, 1999.

[46] Martin Gaynor and William B. Vogt, "Antitrust and Competition in Health Care Markets." Working Paper 7112, National Bureau of Economic Research, May 1999.

reduction through a combination of negotiated discounts with providers and controls on service utilization. The Quality Health-Care Coalition Act of 1999, and similar legislation that would permit collective bargaining by health care providers considered in several states,[47] threatens to undermine managed care's ability to maintain health care cost increases at modest levels.

We estimate that if this, or similar, legislation were enacted, total annual personal health care spending would rise between 2.5 and 8.3 percent, or by $29.2 to $95.4 billion dollars annually. Approximately 70 to 80 percent of this increase would be borne by the private sector (including the effect on private insurance, federal employees' health benefit programs and out-of-pocket expenditures). A larger impact on public spending could be expected in the future if the current trend of increasing managed care penetration in Medicare and Medicaid continues. Private health insurance premiums would increase annually by 4.7 to 13.2 percent ($18.0 to $51.1 billion). Annual impacts toward the lower end of the range can be anticipated to result fairly quickly, while the longer-term impact could fall toward the upper end of the range.

These results are fairly consistent with other analyses of "patients' rights legislation" that predict somewhat smaller impacts for narrower pieces of legislation that would result in lesser reductions in managed care's ability to "manage." For example, a study by the CBO of the revised, more narrowly focused Patients' Bill of Rights Act of 1999 (S. 6)[48] estimates that its long-run impact on private health insurance premiums would equal 4.8 percent. The Barents Group study, cited earlier, focuses on specific pieces of legislation. For example, it estimates that medical necessity legislation would result in a 4.1 to 6.1 percent increase in health plan costs, before consideration of any spillover effects.

Proponents of the collective bargaining legislation argue that it is necessary to protect patients from restrictions on medical practice that lead to poor quality care. These proponents allege that consolidation among health plans has provided them with market power sufficient to reduce provider payments below competitive levels and to place restrictions on utilization that result in insufficient care being delivered. Such arguments, however, ignore the fact that the antitrust agencies have been active in providing alternative mechanisms for physicians and other providers legitimately to negotiate collectively when such activities enhance consumer welfare. Moreover, competition among health plans has been aggressive in recent years, as evidenced by their poor profits in recent years. Such competition does not suggest the exercise of market power by plans. Finally, recent consolidations among health plans have received careful scrutiny by the antitrust agencies to ensure that competition is maintained.

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[47] The Texas legislature passed similar legislation in May 1999, which was signed by the governor.

[48] Congressional Budget Office, Cost Estimate: S. 6, Patients' Bill of Rights Act of 1999, June 16, 1999.

Table 1 -- Federal

Federal Estimates of the Cost of Physician Antitrust Waivers (in Billions of Dollars)

	Parameter Values for Scenario:					
Parameter	**One**	**Two**	**Three**	**Four**	**Five**	**Six**
Provider Discounts	6.0%	10.0%	13.0%	15.0%	20.0%	25.0%
% Discount Lost	50.0%	60.0%	75.0%	75.0%	85.0%	100.0%
Spillover Price Effect	0.0%	5.0%	8.0%	10.0%	10.0%	10.0%
% Change in Utilization	3.0%	3.0%	4.4%	6.5%	8.0%	9.7%
Spillover Utilization Effect	0.0%	10.0%	20.0%	30.0%	40.0%	50.0%
Managed Care Penetration	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%

	Costs (Billions $)			
Source of Cost	**Private Insurance**	**All Private**	**Public**	**Total**
Scenario One				
Price Increases (direct)	3.9	4.8	0.6	5.4
Price Increases (spillover)	0.0	0.0	0.0	0.0
Total Price Effect	3.9	4.8	0.6	5.4
Utilization (direct)	9.8	12.6	3.5	16.2
Utilization (spillover)	0.0	0.0	0.0	0.0
Total Utilization Effect	9.8	12.6	3.5	16.2
Total (direct)	13.7	17.5	4.1	21.6
Total (spillover)	0.0	0.0	0.0	0.0
Total	**13.7**	**17.5**	**4.1**	**21.6**
Scenario Two				
Price Increases (direct)	7.8	9.6	1.2	10.8
Price Increases (spillover)	0.1	0.4	0.0	0.4
Total Price Effect	8.0	10.0	1.2	11.2

Utilization (direct)	9.8	12.6	3.5	16.2
Utilization (spillover)	0.2	0.7	1.1	1.8
Total Utilization Effect	10.0	13.3	4.7	18.0
Total (direct)	17.7	22.3	4.7	27.0
Total (spillover)	0.3	1.1	1.1	2.2
Total	**18.0**	**23.3**	**5.9**	**29.2**

Scenario Three

Price Increases (direct)	12.7	15.7	1.9	17.6
Price Increases (spillover)	0.4	0.9	0.0	0.9
Total Price Effect	13.1	16.6	1.9	18.6
Utilization (direct)	14.4	18.5	5.2	23.7
Utilization (spillover)	0.5	2.0	3.4	5.4
Total Utilization Effect	14.9	20.6	8.5	29.1
Total (direct)	27.2	34.2	7.1	41.3
Total (spillover)	0.9	3.0	3.4	6.3
Total	**28.1**	**37.2**	**10.5**	**47.6**

Scenario Four

Price Increases (direct)	14.7	18.1	2.2	20.3
Price Increases (spillover)	0.6	1.4	0.0	1.4
Total Price Effect	15.3	19.4	2.2	21.7
Utilization (direct)	21.3	27.4	7.6	35.0
Utilization (spillover)	1.1	4.5	7.4	11.9
Total Utilization Effect	22.4	31.9	15.1	47.0
Total (direct)	36.0	45.5	9.9	55.3
Total (spillover)	1.7	5.8	7.4	13.3
Total	**37.7**	**51.3**	**17.3**	**68.6**

Scenario Five

Price Increases (direct)	22.2	27.3	3.4	30.7
Price Increases (spillover)	0.8	2.1	0.0	2.1
Total Price Effect	23.1	29.4	3.4	32.8
Utilization (direct)	26.2	33.7	9.4	43.1

Utilization (spillover)	1.9	7.4	12.2	19.6
Total Utilization Effect	28.1	41.1	21.6	62.7
Total (direct)	48.4	61.1	12.8	73.8
Total (spillover)	2.7	9.4	12.2	21.6
Total	**51.1**	**70.5**	**25.0**	**95.4**

Scenario Six

Price Increases (direct)	32.7	40.2	5.0	45.2
Price Increases (spillover)	1.2	3.0	0.0	3.0
Total Price Effect	33.9	43.2	5.0	48.2
Utilization (direct)	31.8	40.9	11.4	52.3
Utilization (spillover)	2.9	11.2	18.5	29.7
Total Utilization Effect	34.6	52.0	29.9	81.9
Total (direct)	64.4	81.1	16.3	97.4
Total (spillover)	4.1	14.2	18.5	32.7
Total	**68.5**	**95.3**	**34.9**	**130.1**

Table 2 -- Federal

Federal Estimates of the Cost of Physician Antitrust Waivers (as a Percentage of Total Expenditures by Payment Source)

	Parameter Values for Scenario:					
Parameter	**One**	**Two**	**Three**	**Four**	**Five**	**Six**
Provider Discounts	6.0%	10.0%	13.0%	15.0%	20.0%	25.0%
% Discount Lost	50.0%	60.0%	75.0%	75.0%	85.0%	100.0%
Spillover Price Effect	0.0%	5.0%	8.0%	10.0%	10.0%	10.0%
% Change in Utilization	3.0%	3.0%	4.4%	6.5%	8.0%	9.7%
Spillover Utilization Effect	0.0%	10.0%	20.0%	30.0%	40.0%	50.0%
Managed Care Penetration	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%

	Costs as Percentage of Expenditure*			
Source of Cost	**Private Insurance**	**All Private**	**Public**	**Total**

Scenario One				
Price Increases (direct)	1.0%	0.7%	0.1%	0.5%
Price Increases (spillover)	0.0%	0.0%	0.0%	0.0%
Total Price Effect	1.0%	0.7%	0.1%	0.5%
Utilization (direct)	2.5%	1.9%	0.7%	1.4%
Utilization (spillover)	0.0%	0.0%	0.0%	0.0%
Total Utilization Effect	2.5%	1.9%	0.7%	1.4%
Total (direct)	3.6%	2.7%	0.8%	1.9%
Total (spillover)	0.0%	0.0%	0.0%	0.0%
Total	**3.6%**	**2.7%**	**0.8%**	**1.9%**
Scenario Two				
Price Increases (direct)	2.0%	1.5%	0.2%	0.9%
Price Increases (spillover)	0.0%	0.1%	0.0%	0.0%
Total Price Effect	2.1%	1.5%	0.2%	1.0%
Utilization (direct)	2.5%	1.9%	0.7%	1.4%
Utilization (spillover)	0.0%	0.1%	0.2%	0.2%
Total Utilization Effect	2.6%	2.0%	0.9%	1.6%
Total (direct)	4.6%	3.4%	0.9%	2.3%
Total (spillover)	0.1%	0.2%	0.2%	0.2%
Total	**4.7%**	**3.6%**	**1.2%**	**2.5%**
Scenario Three				
Price Increases (direct)	3.3%	2.4%	0.4%	1.5%
Price Increases (spillover)	0.1%	0.1%	0.0%	0.1%
Total Price Effect	3.4%	2.6%	0.4%	1.6%
Utilization (direct)	3.7%	2.8%	1.0%	2.1%
Utilization (spillover)	0.1%	0.3%	0.7%	0.5%
Total Utilization Effect	3.9%	3.2%	1.7%	2.5%
Total (direct)	7.0%	5.3%	1.4%	3.6%
Total (spillover)	0.2%	0.5%	0.7%	0.5%
Total	**7.3%**	**5.7%**	**2.1%**	**4.1%**
Scenario Four				
Price Increases (direct)	3.8%	2.8%	0.4%	1.8%
Price Increases (spillover)	0.1%	0.2%	0.0%	0.1%
Total Price Effect	4.0%	3.0%	0.4%	1.9%

Utilization (direct)	5.5%	4.2%	1.5%	3.0%
Utilization (spillover)	0.3%	0.7%	1.5%	1.0%
Total Utilization Effect	5.8%	4.9%	3.0%	4.1%
Total (direct)	9.3%	7.0%	2.0%	4.8%
Total (spillover)	0.4%	0.9%	1.5%	1.2%
Total	**9.8%**	**7.9%**	**3.5%**	**6.0%**

Scenario Five

Price Increases (direct)	5.8%	4.2%	0.7%	2.7%
Price Increases (spillover)	0.2%	0.3%	0.0%	0.2%
Total Price Effect	6.0%	4.5%	0.7%	2.8%
Utilization (direct)	6.8%	5.2%	1.9%	3.7%
Utilization (spillover)	0.5%	1.1%	2.4%	1.7%
Total Utilization Effect	7.3%	6.3%	4.3%	5.4%
Total (direct)	12.5%	9.4%	2.6%	6.4%
Total (spillover)	0.7%	1.4%	2.4%	1.9%
Total	**13.2%**	**10.8%**	**5.0%**	**8.3%**

Scenario Six

Price Increases (direct)	8.5%	6.2%	1.0%	3.9%
Price Increases (spillover)	0.3%	0.5%	0.0%	0.3%
Total Price Effect	8.8%	6.6%	1.0%	4.2%
Utilization (direct)	8.2%	6.3%	2.3%	4.5%
Utilization (spillover)	0.7%	1.7%	3.7%	2.6%
Total Utilization Effect	9.0%	8.0%	6.0%	7.1%
Total (direct)	16.7%	12.4%	3.3%	8.5%
Total (spillover)	1.1%	2.2%	3.7%	2.8%
Total	**17.7%**	**14.6%**	**7.0%**	**11.3%**

* For instance the category entitled "private insurance" reports the increase in private insurance costs as a percentage of
total expenditures on personal health care made by private insurance companies.