INCREASING CONSOLIDATION IN HEALTH CARE MARKETS:

WHAT ARE THE ANTITRUST POLICY IMPLICATIONS?

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I. INTRODUCTION

Market forces are leading to fundamental changes in the way health care is financed and delivered. Hospitals, physicians, and insurers have been aligning in a plethora of coalitions as mergers, networks, joint ventures, and contracts have developed and dissolved with great rapidity. In 1996 there were 997 health care mergers and acquisitions announced, an increase of 58 percent from 1995.[1] These new coalitions include both horizontal associations (associations among firms in the same product market), and vertical associations (associations between firms operating in different, but related product markets-- insurers and hospitals, insurers and physicians, and physicians and hospitals).

The implications of this reorganization for health care competition, and thus, for costs, quality, and innovation, are profound. The key question is to what extent are these changes in health care markets efficiency and quality enhancing and to what extent do they facilitate collusion, market power, and higher prices or lower quality. Increasing horizontal consolidation and increasing vertical consolidation may be consistent with the goals of lower health care costs and higher health care quality. The increasing collaboration and integration may also be consistent with strategic attempts by firms to achieve market power. By market power, we mean the ability of a firm to increase its profit margins to the detriment of consumers' welfare. This can be achieved by increasing price, decreasing quality, or both.[2] If competition is lessened, is there a significant loss of social welfare, and if so, what is appropriate antitrust policy? Further, even if there are no direct price and quality effects of consolidation, there may be reductions in social

welfare if such consolidations reduce the number of consumers' choices or firms' incentives to innovate.

The antitrust laws are written to promote and protect competition, not collaboration. Thus, it is not surprising that the rapidly changing health care financing and delivery system coupled with the push for increased cost control has raised significant antitrust issues in health care. In the 1990s we have witnessed the introduction of many proposed pieces of federal legislation which would significantly change antitrust enforcement in health care.[3] The Clinton health reform proposal contained both some limitations and an extension of antitrust enforcement.[4] The Medicare reforms proposed in Congress in the Fall of 1995 contained significant relaxations of antitrust for health care. The Department of Justice (DOJ) and the Federal Trade Commission (FTC) have adopted new antitrust guidelines for health care three times in the past 4 years.[5] Further, increasingly states are substituting state regulation for federal antitrust enforcement for certain health care activities.

Antitrust has emerged as a crucial element of health policy. The potential for market forces to constrain health care costs is, in part, determined by the enforcement of the antitrust laws that are designed to ensure that competition will lead to procompetitive rather than anticompetitive behavior. The importance of antitrust enforcement policy in health care markets has been underappreciated by many policy makers and the public, who continue to focus attention on Medicare, Medicaid, and insurance markets. While policy in those areas continues to be of critical importance, health care markets are being fundamentally transformed in ways that may either be beneficial or inimical to the public interest.

The rapid transformation of the health care financing and delivery system raises at least three major antitrust challenges and at least two antitrust issues that require special attention. The first, and most obvious antitrust challenge, is that the extensive horizontal consolidation is creating concentration in previously unconcentrated markets. The consequence is that the exercise of market power is becoming a legitimate concern in markets previously considered extremely competitive. Second, as vertical relations between insurers and providers or hospitals and physicians emerge as key elements of competition in health care markets, concerns about such arrangements foreclosing competitors from the market, reducing competition, and increasing the potential to exercise market power are emerging. Third, the increasing geographic expansion of firms of physicians or hospitals, and insurers raises concerns that multimarket contact may increase the probability of collusion.

In addition, the increasing prevalence of managed care, the increasing vertical relations between insurers and health care providers, and the increasing product differentiation in the health care financing market make product and geographic market definition, an essential exercise in antitrust cases, substantially more challenging than in the past. The proper definition of the relevant market is a necessary predicate to assessment of whether the proposed merger, acquisition, network, joint venture, etc. will have anticompetitive effects. If the product and geographic markets are defined too broadly, then antitrust analyses will err on the side of allowing too much consolidation.[6] If the product and geographic markets are defined too narrowly (competitors are excluded), then antitrust analyses will err on the side of prohibiting consolidations that are actually in the public interest.

Further, the traditional focus of antitrust analysis on higher prices as evidence of the exercise of market power creates a large blindspot in health care antitrust enforcement. The focus on price in antitrust analyses and the difficulties inherent in observing quality in health care markets may result in health care antitrust enforcers failing to detect the exercise of market power in health care markets and may encourage health care firms to exercise market power by lowering quality (rather than by raising price).

In this paper we discuss these three antitrust challenges and attempt to illustrate the importance of market definition in health care antitrust. We analyze the potential procompetitive and anticompetitive impacts of increasing horizontal consolidation, increasing vertical consolidation, and increasing multi-geographic market contacts, and then analyze current antitrust enforcement policy in each of these area.

Both horizontal and vertical consolidation can enhance efficiency and improve quality of care. However, federal and state antitrust enforcers should not simply sit by and watch health care markets evolve, as others have suggested.[7] To the extent there are barriers to entry and barriers to expansion in the relevant health care markets, horizontal and vertical consolidations can have anticompetitive effects. Barriers to entry are costs that must be incurred by new entrants that incumbent firms have not had to incur. If there are no barriers to entry and thus, entry of new firms into the market is easy, then even a market with only one firm may be very competitive. The reason is that the monopolist cannot exploit her market power for fear of inducing entry. Alternatively, a market with many firms may not be very competitive if there are entry barriers. If

there are 4 or even 8 firms in a market, those firms may find if feasible to collude and raise prices (or lower quality) if they know that the entry of other firms is extremely difficult.

Managed care seems to have raised the stakes in horizontal and vertical consolidations, and thus there is an increasingly important role for antitrust enforcers to play. Under managed care physicians and hospitals compete for managed care contracts, rather than for individual patients. If a physician or hospital cannot compete for managed care contracts unless it is part of a network, then the entry barriers in the markets for physician services and hospital services may be significantly higher. This has important implications for determining the anticompetitive impacts of horizontal and vertical consolidations in markets with high managed care penetration.

In what follows, section II covers issues associated with horizontal consolidation, section III is concerned with issues of vertical consolidation, and section IV covers geographic expansion. Section V contains a summary.

II. INCREASING HORIZONTAL CONSOLIDATION

Horizontal associations include hospitals integrating or collaborating with other hospitals, physicians integrating or collaborating with other physicians, and insurers integrating with other insurers. Between 1994 and 1996 there were 2,153 hospitals, approximately 41 percent of the 5,200 hospitals in the United States, involved in 649 mergers/acquisitions.[8] Columbia/HCA, the largest for-profit hospital chain, bought or entered into joint ventures for 41 hospitals with 8,708 beds in 1995.[9] By 1995 just over a third of all practicing physicians were in group practices.[10] There has also been tremendous growth in Independent Practice Associations (IPAs). As of August 1996, there were approximately 4,000 IPAs with an average of 300 physicians each, up

from approximately 1,500 in 1990.[11] In 1991 very few physician management firms existed. As of August 1996, at least 22 public and many private physician management firms were buying and managing physician practices.[12] In 1996 Medpartners acquired Caremark International creating the largest physician management firms with 7,400 affiliated physicians.[13]

Further, insurers or managed care organizations (MCOs) are integrating with each other. In 1975, there were over 120 independent Blue Cross or Blue Shield plans. By June of 1996, there were only 63.[14] Aetna Health Plans acquired U.S. Healthcare in 1996 creating the third largest HMO chain with 4.3 million HMO members and 2 million POS members.[15] PacifiCare Health System acquired FHP International in 1997, creating a MCO with 3.9 million HMO enrollees in 15 states, 430,000 PPO eligibles, 550,000 indemnity lives, and 5.28 million lives in specialty managed care products.[16]

The Procompetitive Effects or Efficiency Gains

Multiple factors provide strong efficiency stimuli for horizontal consolidation. Declining demand for inpatient hospital services, the shifting of risk from private and public insurers to providers, greater price and quality sensitivity on the part of buyers, and selective contracting by MCOs have contributed to the trend toward increasing horizontal consolidation.

--Excess Capacity

Many hospitals have found themselves with substantial excess capacity as inpatient utilization and occupancy rates have fallen. The number of inpatient days per year in community hospitals declined from 218.3 million in year ending July 1990 to 185.8 million in year ending July

1996[17]. Community hospital occupancy rates declined from 64.5 in 1990 to 59.7 in 1995[18]. Closure, merger, and acquisition are all efficient responses to these changing market conditions.

--Risk Spreading

Changes in payment methodology by both public and private payers have resulted in substantially more risk bearing by providers. Increasingly providers are bearing the risk related to the frequency of insured patients' medical problems and the costs of treating those patients' medical problems. The Medicare Prospective Payment System for hospitals and the spread of capitation contracts, percentage of premium contracts, and fee-for-service with withholds contracts have shifted risk from payers to providers. An efficient response to an increase in risk is to increase size in order to spread risk[19]. Increasing the number of providers in the group/network or the size of the insured population will reduce the variance in medical treatment utilization and costs.

--Fixed Costs of Quality Assurance

At the same time, MCOs are facing increasingly price sensitive buyers who are demanding information on quality and enrollee satisfaction. Purchasers' new emphasis on utilization and quality control, and increasing risk bearing by providers has provided incentives for hospitals, physicians, and MCOs to begin or increase monitoring activities. Monitoring includes the activities that are designed to reduce the costs of agency problems in health care markets.[20] Examples of monitoring activities include the development and imposition of treatment protocols (critical pathways and practice guidelines), utilization management methods (preauthorization requirements for certain tests or referrals or profiling of physicians' utilization patterns), and

activities that are designed to maintain or increase quality of care, such as quality assurance programs. Since the implementation of monitoring systems involves fixed costs, larger firms can spread these costs over more patients or enrollees and thereby realize lower per unit costs. However, it is not clear how large the fixed costs of such systems are, hence it is not clear that a firm must be large to achieve these efficiencies. For example, the most recent estimates for HMOs suggest that all scale economies are achieved in the range of 50,000 to 100,000 enrollees,[21] not particularly large for an HMO.

--Musical Chairs

The spread of selective contracting as enrollment in managed care plans has increased has left providers concerned about their inclusion or exclusion from plans' provider networks. As patients' ability to freely choose their provider becomes curtailed, exclusion from a network becomes increasingly threatening to providers. A great deal of what we observe happening among providers can be understood as jockeying for position to make sure not to be the one "left standing when the music stops." Providers want to make sure they are included in a health insurer's panel of providers. This can be accomplished simply by being large,[22] by offering the lowest cost services, or by offering a comprehensive array of services. It is not clear that such responses are efficient, in that they may not necessarily result in arrangements that are cost reducing or quality enhancing, but the motives described are not anticompetitive. What we are observing among providers may also be providers' attempts to improve their bargaining positions relative to insurers. This has the potential to be anticompetitive and is discussed in the next section.

The Anticompetitive Concerns Associated with Horizontal Consolidation

The main anticompetitive concern associated with horizontal consolidation is the exercise of market power to raise prices and/or lower quality. As firms decrease in number and increase in size the possibility of the exercise of market power increases. A single firm may grow large enough to possess substantial market power through market dominance. Alternatively, even if no single firm dominates a market, the number of firms may be small enough to allow for collusion and the collective achievement of market power. The likelihood of the exercise of market power depends critically on the existence of current or potential competitors and this depends, in part, on the extent of barriers to entry and expansion.

--HMO Consolidation

How large is too large for antitrust purposes? Interestingly, at the federal level neither the FTC or the DOJ have challenged a merger of HMOs.[23] Most recently, the FTC decided not to challenge the merger of PacifiCare Health Systems and FHP International, despite estimates that the merged firm would have a very high market share in the Medicare HMO market in Orange and San Diego counties in California (66% and 70-90%, respectively).[24] Whether or not allowing this HMO merger (or mergers of this sort) was good public policy depends on two critical issues.[25] First, is there a separate product market for HMOs? Does the relevant product market for HMO consolidations include all insurers (HMOs, PPOs, POS plans, managed FFS plans and traditional FFS plans) or is there a separate market for HMOs.[26] Inclusion of PPOs and other insurers in the relevant product market of the merging HMOs increases the probability that the antitrust analysis will conclude that the HMO merger will not have anticompetitive effects.

Second, are there barriers to entry? If there are entry barriers, then HMOs with market power may be able to raise premiums or lower quality, and earn positive economic profits without stimulating the entry of new firms into the market.

In general, the relevant product market includes all firms that provide the same product as the merging firms, all firms that provide close substitutes for that product, and all potential competitors or firms that could provide that product or a close substitute with relative ease. Economists use the concept of the cross price elasticity of demand to determine whether two products are substitutes for one another. The cross price elasticity of demand is a measure of the responsiveness of demand for one product to changes in the price of another product. If two goods are substitutes, then the cross price elasticity of demand will be positive. For example, butter and margarine or tea and coffee have positive cross price elasticities of demand.

The jury is still out on the issue of the relevant market for HMO consolidation because there is little current empirical evidence on the cross price elasticities between HMOs and other types of health plans.[27] There is one study based on 1994 data from California that suggests that individuals with managed care plans are more likely to switch within plan types (for example, one HMO to another HMO) and not across plan types (for example, HMO to PPO).[28] However, another study of Harvard University employees suggests substantial switching across plan types.[29] The argument that HMOs and traditional FFS plans are in different markets is based on current enrollment patterns and a prediction about future enrollments. Currently, the vast majority of individuals covered by employer sponsored health insurance are enrolled in managed care plans.[30]

Further, some have argued that traditional FFS insurance will disappear from the market due to a death spiral of adverse selection.[31]

What are the potential sources of entry barriers in this market? The existence of large sunk costs, costs that cannot be recovered upon exit from the market, in combination with demand uncertainty may discourage entry. Potential entrants may be able to make a profit at current prices, but fear that demand and prices may fall to the point where they would be making negative profit. Examples of sunk costs include the costs of building a provider network, such as the costs of identifying cost-effective and high quality providers or the costs of finding compatible information systems for billing, utilization management, and quality assurance with providers.

Certain types of contractual arrangements between payers and providers, such as exclusive deals and noncompete clauses, may lead to market foreclosure.[32] If an HMO has exclusive contracts with a large portion of the providers in the market, there may not be enough independent providers remaining to allow efficient entry by another firm. This is only likely to be a problem if the contracts are with a large share of the providers in the market and if the exclusivity clauses are truly binding on providers. This is likely to be so if they have substantial enforceable penalties for breach of contract and if they are of a fairly long duration. Similarly, integration between an HMO and provider firms can cause the same problems. Noncompete clauses in contracts typically specify restrictions on contracting with rival firms for a specified period in a specified geographic area during or after the termination of a contractual relation. These can make entry for rival firms difficult for exactly the same reasons as exclusive contracts.

--Consolidation in the Market for Physician Services

Similarly, the federal agencies have not yet challenged a merger of physician practices. Physician practice mergers are most likely to be of concern in rural areas or small towns, or when they involve providers of specialized services.

Instead the focus of federal antitrust enforcement has been on physician networks. The issue of how large is too large for antitrust purposes is established, in part, by the FTC/DOJ Statements' "safety zones" for physician networks. Nonexclusive networks that include 30 percent or fewer of the physicians in the same specialty and exclusive networks that include 20 percent or fewer of the physicians in the same specialty will not be challenged. Physician networks that fall outside the safety zones and that meet the federal agencies' stated criteria for legitimate integration, such as the network bears substantial financial risk (for example, capitation contracts) or participates in extensive clinical integration (for example, programs to monitor, evaluate, and change clinical practices by the network's physicians) will be reviewed under rule of reason analysis. This requires that the network demonstrate efficiencies or no ill effects on competition.

Recent DOJ Business Review Letters provide guidance on allowable network size for networks outside the safety zones and illustrate the importance of market definition and the challenges of market definition under managed care. For example, 65 to 70 pediatricians practicing in southern New Jersey proposed formation of a network to contract with managed care plans. The pediatricians argued that the relevant product market included all primary care and specialty care physicians who treat children and that the relevant geographic market included the greater Delaware Valley or southern New Jersey, southeastern Pennsylvania, and northern

Delaware. Under this market definition, the network would not possess market power and would not have anticompetitive effects. The DOJ, however, argued in their Business Review Letter of March 1, 1996 that family practitioners are not substitutes for pediatricians in the formation of managed care physician networks and that the geographic market for basic pediatric services is very local. Under the DOJ's market definition, the network would have a market share of 50 to 77 percent, and thus the ability to exercise market power. The DOJ rejected the pediatricians' proposal to form a network.

--Hospital Consolidation

Most hospital mergers/acquisitions fall outside the FTC/DOJ safety zone[33] and are analyzed according to the DOJ/FTC 1992 Horizontal Merger Guideline.

In several recent court cases judges have ruled in favor of the merging hospitals and against the federal enforcement agencies. The judges' decisions in these cases have given a green light to hospital consolidation in markets with few competitors and thus, have serious, negative implications for competition policy in hospital markets. For example, in June of 1994 the DOJ challenged the merger of the only two general acute-care hospitals in Dubuque, Iowa on the basis that the merger would substantially lessen competition for acute-care hospital services. The judge denied the DOJ's request for an injunction to block the merger on the grounds that the geographic market is quite large and the merged hospital will compete with hospitals 70 to 100 miles away.[34] The decision was based, in part, on the notion that managed care plans can induce persons to use hospitals far outside of Dubuque through the use of financial incentives. However, there is little empirical evidence that consumers are willing to travel long distances for many hospital services.

Further, managed care can either increase or decrease the size of the relevant geographic market.[35]

In another recent case[36] the court conceded that the FTC had established that the two merging hospitals would have substantial monopoly power in the Grand Rapids, Michigan hospital services market. The judge, however, allowed the merger on the grounds that, since the hospitals were nonprofit hospitals, they would not exercise market power to the detriment of the community, even given the opportunity. The judge's decision was based, in part, on an empirical study by Lynk using data on California hospitals from 1989 that found for-profit hospitals charge higher prices in less competitive markets, but nonprofit hospitals charge lower prices.[37] This finding is somewhat confusing, because it is hard to explain why nonprofit hospitals' prices are lower (as opposed to not being any higher), the less is competition.[38]

The Grand Rapids case raises a very important antitrust issue: can mergers between nonprofit organizations have anticompetitive effects? The federal antitrust enforcement agencies' clear position has been that hospitals will attempt to exercise monopoly power when presented

over time. Specifically, he finds that in later periods nonprofits do charge higher prices in less competitive markets. Melnick's study indicates that, while nonprofit hospitals may have behaved differently from for-profit hospitals in the mid to late 1980s, by the early 1990s their behavior with respect to the exercise of market power was not substantially different.

III. INCREASING VERTICAL CONSOLIDATION

In addition to horizontal associations, the pace of vertical associations has increased. For example, the number of physician practices owned or managed by hospital based systems increased by 60 percent between 1994 and 1995, from 7,015 to 11,234.[41] However, it is unclear whether the trend is toward vertical integration and exclusive vertical contracts or toward looser vertical associations, sometimes called "virtual integration." There is evidence of both. For example, Allina Health System which covers approximately one-fourth of Minnesota's residents through its HMO and PPO is the result of a 1994 merger between a hospital chain and a health plan. In 1995 Kaiser Permanente Health Plan in Dallas signed an exclusive, five year contract with Columbia/HCA.[42] However, this year Medpartners agreed to buy Aetna U.S Healthcare's physician practices and also signed a ten year, nonexclusive contract with Aetna U.S. Healthcare to provide services to the insurer's HMO enrollees.[43] Further in 1996 other insurers, such as FHP International Corp., Foundation Health Corp., PacifiCare Health Systems, and Physician Corp. of America, sold their physician operations.[44]

Vertical relations between hospitals and physicians or between insurers and providers are quite controversial. Current thinking is that vertical relations have the potential to enhance efficiency, but also to enhance firms' market power in markets with significant barriers to entry.

The antitrust policy implications are that vertical relations should be judged under the rule of reason, in other words, the benefits, or efficiencies associated with the vertical relations should be weighed against the costs, or anticompetitive impacts.[45]

The Procompetitive Effects or Efficiency Gains

The same factors that provide efficiency stimuli for horizontal consolidation also provide efficiency stimuli for increasing "vertical relations" or mergers, acquisitions, and tighter contractual relations between physicians, hospitals, and insurers. For example, monitoring and controlling health care utilization and quality may be done more efficiently in organizations where physicians, hospitals, and insurers are vertically integrated or have long-term contracts, and thus, share similar goals and aligned incentives. Independent firms may work at cross purposes. For example, when an independent physician develops a practice style that results in lower quality care to patients, the physician will consider the costs of lowering quality to his/her own reputation, demand, and income, but may not consider the costs of lowering quality to the hospital's or insurer's reputation, demand, and profits. Vertical integration or close contractual relations provides the opportunity to align incentives across firms, and in this example the opportunity to increase quality. Further, vertical relations between hospitals and physicians provide the opportunity to increase quality by improving coordination of care or continuity of care.

Further, to the extent that monitoring activities are specific to the relationship between the two firms (for example, a provider and a insurer) and involve fixed investments to implement, it may be very costly for a provider to undertake monitoring of utilization and quality to the differing specifications of multiple insurers. Dealing with a single insurer may provide the

economies necessary to invest in monitoring systems. Another point is that such investments are more likely to take place in the context of a long term ongoing relationship, where the provider has more assurance of recouping a return on its investment. Integration or close contractual ties constitute such a relationship.

--Transactions cost savings

Merger or tight contractual arrangements between insurers and physicians, insurers and hospitals, or hospitals and physicians may increase efficiency by lowering the costs of transacting between the two markets. Transactions costs include the costs of negotiating, writing, monitoring, and enforcing contracts. Transaction costs are especially high when there is uncertainty and thus it is costly to negotiate contracts with all possible contingencies, when there are few alternative suppliers and thus there are opportunities for opportunist behavior, and when extensive coordination among the firms at the different stages of production is required.[46] All three of these conditions are present in markets for health care. An insurer that is integrated with a set of physicians or deals contractually with the same set of physicians on a repeated basis may have significantly lower transactions costs than one who deals with a fluid set of physician suppliers. Similarly, physicians may have significantly lower costs by transacting with a single insurer, as opposed to writing and maintaining contracts with multiple insurers on an individual basis.

Anticompetitive Concerns Associated with Vertical Relations

There is no general consensus about whether vertical relations have anticompetitive effects. Early court decisions were extremely restrictive in their treatment of vertical integration

and restraints.[47] The courts expressed concern that vertical relations led to market foreclosure and consequently were harmful to competition. In the 1950s, 60s, and 70s, however, the "Chicago School" thinking on vertical relations emerged and the antitrust pendulum swung to the other extreme.[48] Proponents of the Chicago School argued that vertical relations were procompetitive rather than anticompetitive or at least, vertical associations were competitively neutral.[49] The Chicago School view is based on economic models that made strong assumptions, such as output is produced using inputs in fixed proportions[50], that there is perfect competition in the input market, and that there is monopoly in the output market. These assumptions do not hold in most markets and certainly do not hold in health care markets.

More recently, the "Post-Chicago School" approach to vertical relations has emerged and the antitrust pendulum is swinging more toward the middle.[51] Proponents of the Post-Chicago School argue that vertical relations can enhance efficiency, but also allow that vertical relations can be anticompetitive under certain conditions.[52] The anticompetitive impacts of vertical relations come from 1) the potential for a vertically related firm to raise rivals' costs and/or foreclose rivals' access to a necessary market and 2) the potential for vertical relations to confer market power by facilitating horizontal coordination or collusion.

--Raising Rivals' Costs and Foreclosure

As mentioned in the discussion of HMO mergers, vertical relations between hospitals (or physician groups/networks) and insurers may raise the costs of rival insurers or raise the costs of potential entrants into the market, and thus increase the ability of the insurer with the vertical relation to increase prices or lower quality. For example, if there are two insurance plans in a

market and one hospital, then a merger between one of the insurers and the hospital has the potential to be anticompetitive. The merged insurer and hospital may choose not to sell hospital services to the other insurance firm, thereby completely foreclosing its access to the hospital services market and rendering it unable to compete.[53] Alternatively, the merged insurer and hospital may sell hospital services to the rival insurer, but at a price higher than the internal cost to the merged firm. This puts the rival insurer at a competitive disadvantage, forcing it to sell at a higher price, thus allowing the merged firm to sell insurance at a price above its cost, but still remain competitive. It is this sort of foreclosure, or "raising rivals' costs" that is of concern in vertical relations.[54]

That there are not alternative sellers of hospital services (or physician services in the case of vertical relations between insurers and physicians) is critical to this analysis. In a recent case, Blue Cross/Blue Shield of Wisconsin charged that Marshfield Clinic, a physician owned clinic that was vertically integrated with its HMO, had excluded the BC/BS HMO from the health care financing market by monopolizing the market for physician services.[55] On appeal the court ruled that the facts of the case did not support this charge. Marshfield Clinic employed about 400 physicians and contracted with approximately 900 additional physicians through its HMO. These contracts were not exclusive. The contracting physicians could contract to provide services for other HMOs and could practice fee-for-service medicine. Thus, Judge Posner ruled that the vertical relation between Marshfield Clinic and its HMO could not have foreclosed the BC/BS HMO from the market for health care financing.[56]

--Facilitating Horizontal Coordination or Collusion

Vertical relations also have the potential to confer monopoly power by facilitating horizontal coordination or collusion.[57] In 1995 and 1996 the DOJ brought three separate civil enforcement actions against PHOs in Danbury, Connecticut, St. Joseph, Missouri, and Baton Rouge, Louisiana. The DOJ argued that vertical relations between monopoly hospitals and a large share of physicians in the market restrained competition in the physician services market, and resulted in higher prices for physician services.

--Most Favored Nation Contract Clauses

Most-favored-nation (MFN) clauses, also called most-favored-customer clauses, are vertical contractual agreements in which the seller (for example, a hospital or physician group/network) agrees not to charge the buyer (for example, an insurer) more than the lowest price it charges any other buyer. If the seller offers another buyer a lower price, then the seller must offer the same lower price to the buyer with the MFN clause.

MFN clauses may have procompetitive and/or anticompetitive impacts in health care markets. The main potential procompetitive effect is that MFN clauses may allow insurers or other buyers of health care services to lower their costs, and therefore to increase output and/or lower insurance prices. MFN clauses may impair horizontal competition in at least two ways. First, MFN clauses may facilitate tacit coordination among health care providers.[58] MFN clauses may decrease competition among health care providers by reducing providers' incentives to offer lower prices to insurers. Since any discount the provider grants to one insurer would have to be offered to the insurer with the MFN clause as well, MFN clauses make price reductions very costly. Further, this may be a way to signal a commitment to collusive pricing. If MFN clauses

facilitate coordination among providers and discourage selective discounting, then MFN clauses will lead to higher prices for health care services and/or lower quality health care services. The limiting factor on this behavior is the ease of entry or expansion into the market. Again, if potential competitors or existing rivals can enter or expand easily, then this anticompetitive impact of MFN contracts will be limited.

Second, MFN clauses may increase rival insurers' costs, deter entry into the insurance market, and thus lead to higher prices for insurance and/or lower quality insurance. When an insurer with a large market share signs a contract including a MFN clause with a large hospital or physician group, that insurer has effectively increased its own costs and the costs of rival insurers and potential rivals in the insurance market. The MFN clause assures that the hospital or physician group will not offer to provide services at lower fees to rival insurers or potential entrants. Thus, a large insurer getting most-favored-customer treatment may be able to charge prices above the competitive level or lower quality below the competitive level.

There are very important, but very unsettled antitrust policy issues concerning MFN clauses in health care contracts. Courts decisions effectively have established a rule of per se legality for MFN clauses,[59] while the federal antitrust enforcement agencies have been challenging MFN clauses as anticompetitive and illegal. The DOJ has successfully challenged MFN clauses used by dominant insurers, such as Delta Dental of Rhode Island, the largest dental care insurer in Rhode Island,[60] Delta Dental Plan of Arizona, and Oregon Dental Services.

IV. INCREASING GEOGRAPHIC EXPANSION

Health insurers, hospitals, and physicians have been expanding their operations into many new geographic markets. Between 1993 and 1996 United Healthcare purchased large regional HMOs in six markets.[61] Another example, in 1996 Kaiser Foundation Health Plan acquired Community Health Plan, and thus expanded into new geographic markets in Massachusetts, Vermont, and New York. A similar trend can be observed in the markets for hospital and physician services.

There are at least three potential efficiency enhancing aspects of geographic expansion for insurers. First, this can be seen as a response to increased price sensitivity by large employers. Large employers who have employees in multiple geographic areas may find it desirable to contract with insurers who can cover employees in all of their locations. This may reduce the costs of contracting, and may give the employer more leverage over the insurer with regard to both price and quality. Second, geographic expansion may allow greater risk diversification by an insurer (or risk-bearing provider group), to the extent that population health risks in disparate geographic areas are largely uncorrelated. Third, expanding into multiple geographic markets may allow insurers to realize economies of scale. For non-risk-bearing hospitals or physicians, the advantages may simply be due to size, not due to geography in particular. As monitoring of utilization and quality have become more important, and contracting has become more complex, fixed monitoring and administrative costs have increased for providers. To the extent that monitoring and administrative functions can be centralized and shared, the expansion across geographic markets may be motivated in part by the quest to spread these increased overhead costs over larger numbers of patients.

The anticompetitive concern is that competitors who interact repeatedly in multiple markets may find it easier to collude. If rival firms operate in the same geographic markets, competing vigorously in one geographic market has the disadvantage of potentially engendering retaliation in all markets. This reduces the benefits of competition to the firm and hence makes collusion easier to sustain.[62] This is of substantial concern to the antitrust enforcement authorities, although no cases involving this behavior have been brought in health care as of yet. A potential countervailing effect is that the number of competitors may increase as rivals expand into additional geographic markets.

V. SUMMARY

Horizontal consolidation, vertical relations, and health care firms operating in multiple geographic markets are all becoming the norm in health care markets. Economic theory suggests that horizontal consolidation, vertical relations, and increasing multimarket contact in health care markets may simultaneously enhance health care efficiency and facilitate collusion, market power, and higher health care prices or lower health care quality. Therefore, antitrust policy has emerged as one of the most crucial elements of health policy. The potential for competition to constrain health care costs is, in part, determined by the enforcement of the antitrust laws that are designed to ensure that competition will lead to procompetitive rather than anticompetitive behavior. Ignoring potentially anticompetitive combinations or activities may lead to reification of structures in this industry which would be very difficult to rectify in the future.[63] Federal and state antitrust enforcers must play an active role in health care markets.

[1] Irving Levin and Associates' "Health Care Merger and Acquisition Report," Modern Healthcare, 3/10/97, p. 3.

[2] A firm that simultaneously lowers price and quality is not necessarily exercising market power. If lower quality products can be produced at lower costs and consumers can learn about changes in quality, then lower quality products selling at lower prices is evidence that markets are working.

[3] Examples of bills introduced in 1993 include the Hospital Antitrust Fairness Act (H.R. 1765) that would have exempted from the antitrust laws, mergers and service allocations entered into by hospitals in low population areas and the Health Care Cooperation Antitrust Protection Act of 1993 (H.R. 2640) that would have exempted from the antitrust laws, certain activities of health care providers conducted under joint ventures. Examples of bills introduced in 1996 include the Antitrust Health Care Advancement Act of 1996 (H.R. 2925) that would have relaxed the application of antitrust law to physician networks and HR 3770 that would have exempted physician networks from antitrust prosecution entirely when they are located in markets where health insurers possess a presumption of market power.

[4] See Bloch, R. E. and D. M. Falk, "Antitrust, Competition, and Health Care Reform," Health Affairs, (Spring 1994): 206-223.

[5] DOJ/FTC, "Statements of Antitrust Enforcement Policy in the Health Care Area," September 15, 1993, DOJ/FTC, "Statements of Enforcement Policy and Analytical Principles Relating to Health Care and Antitrust," September 27, 1994, and DOJ/FTC "Statements of Antitrust Enforcement Policy in Health Care," August 1996.

[6] If a market is defined more broadly, then the market will include more competitors, and thus antitrust

[3]3 Modern Healthcare 9/9/96, p. 4.
[4]4 Managed Care Week, 6/3/96.
[5]5 Managed Care Week, 4/15/96, p. 2.
[6]6 Managed Care Week 8/12/96.
[7]7 Statistics provided by the American Hospital Association from the National Hospital Panel Survey.
[8]8 Health Care Financing Review 17:4 (Summer 1996).
[9]9 Shifting risk to providers may also provide incentives for providers to cream-skim or to not accept the sickest, most-costly to treat patients and for providers to underprovide care or deny necessary but costly treatment.
[0]0 In this context the main agency problem is between insurers and providers. Insurers want providers to recommend or provide treatment in a certain manner, but providers may have incentives to do otherwise. Thus, monitoring and utilization and quality controls can improve insurers control over providers' actions.
[1]1 Given, Ruth, "Economies of scale and scope as an explanation of merger and output diversification activities in the health maintenance organization industry," Journal of Health Economics 15:6 (1996) pp. 685-714; Wholey, Doug, Roger Feldman, J.B. Christianson and J. Engberg, "Scale and scope economies among health maintenance organizations," Journal of Health Economics 15:6 (1996) pp.657-684.
[2]2 The costs of contracting with one or a few large groups/networks of providers may be lower than the costs of contracting with multiple smaller groups/networks.
[3]3 In some states state Attorneys General, state departments of insurance, and other agencies have the regulatory authority to challenge HMO mergers. For example, in Massachusetts the Attorney General approved the combination of Harvard Community Health Plan and Pilgrim Health Care, but imposed a series of conduct and community benefit remedies. In Missouri the Department of Insurance allowed the acquisition of MetraHealth by United HealthCare, under the condition that the merged firm divest MetLife HMO of St. Louis, Missouri. In New Hampshire the Attorney General and Department of Insurance approved the acquisition of Matthew Thorton Health Care HMO by Harvard Pilgrim Health Care, on the condition that the merged HMO will not enter into exclusive contracts with providers.
[4]4 Memo from the Committee Staff, Senate Committee on Insurance, California State Senate, March 4, 1997.
[5]5 For further discussion of the issue of HMO mergers, see Haas-Wilson, Deborah, Martin Gaynor, and Roger Feldman, "Testimony on Antitrust Issues Related to HMO Mergers," before the Senate Committee on Insurance, California State Senate, March 5, 1997.
[6]6 In markets with lower levels of managed care penetration, traditional FFS insurance is more likely to be a substitute for HMOs. Consequently, defining the product market is an unsettled issue. In fact, the product market definition was a critical issue in Judge Posner's recent decision in the Marshfield case.
[7]7 Most of the existing literature is based on data from the 1970s or 1980s, and focused on estimating the cross price elasticity between traditional FFS plans and HMOs.
[8]8 Buchmueller, T. and P. Feldstein, "Consumers' Sensitivity to Health Plan Premiums: Evidence from a Natural Experiment in California," Health Affairs 15:1 (Spring 1996) pp. 143-158.

[9]9 Cutler, D. and Reber, "Paying for Health Insurance: The Tradeoff between Competition and Adverse Selection," NBER Working Paper Number 5796 (October 1996).

[0]0 Jensen, G., M. Morrisey, S. Gaffney, and D. Liston, "The New Dominance of Managed Care: Insurance Trends in the 1990s," Health Affairs, 16:1 (1997) pp. 125-136.

[1]1 Cutler, D. and S. Reber, ibid.; Given, Ruth, "Ensuring Competition in the Market for HMO Services," in eds. Wilkerson, J., K. Devers, and R. Given, Competitive Managed Care San Francisco: Jossey-Bass Publishers (1997).

[2]2 Most-favored-nation clauses can also lead to foreclosure and will be discussed in section III.

[3]3 The federal agencies will not challenge a merger between two general acute-care hospitals where one of the hospitals has fewer than 30 beds and an average daily inpatient census of fewer than 40 patients.

[4]4 United States v. Mercy Health Services, No. C94-1023 (N.D. Iowa October 27, 1995).

[5]5 Dranove, David and William White, "Antitrust and the Changing Structure of Health Care Markets," Health Economics (forthcoming January/February 1998).

[6]6 Federal Trade Commission v. Butterworth Health Corp. and Blodgett Memorial Medical Center (U.S. District Court, Western District of Michigan, Southern Division, Case No. 1:96-CV-49).

[7]7 Lynk, William J., "Nonprofit Hospital Mergers and the Exercise of Market Power," Journal of Law and Economics 38 (October 1995) pp. 437-459.

[8]8 One possible explanation is that for-profit hospitals exercise market power by charging higher prices, where nonprofit hospitals exercise market power by reducing quality.

[9]9 Pauly, Mark V., "Nonprofit Firms in Medical Markets," American Economic Review 77 (May 1987) pp. 257-262.

[0]0 Glenn Melnick, personal communication.

[1]1 Modern Healthcare, 6/3/96.

[2]2 Managed Care Week Report.

[3]3 Modern Healthcare, 3/10/97, p. 22.

[4]4 Modern Healthcare, 7/22/96 p. 8.

[5]5 For more details see Gaynor and Haas-Wilson, "The Blessing and the Curse of Managed Care: Vertical Relations in Health Care Markets," Presented at the AEI Conference "Managed Care and Changing Health Care Markets," Washington, D.C., April 10, 1997.

[6]6 Coase, R., (1937) "The Nature of the Firm," Economica 4: 386-405 and Williamson, O., (1975) Markets and Hierarchies: Analysis and Antitrust Implications New York: Free Press.

[7]7 For example, U.S. v. Aluminum Co. of America, 148 F.2d 416 (2nd Cir. 1945); Lorain
Journal v. U.S., 342 U.S. 143 (1951), United Shoe Machinery Corp. v. U.S., 258 U.S. 451, 458 (1922) for exclusionary practices and Brown Shoe Co., Inc. v. U.S., 370 U.S. 294 (1962); A.G. Spalding & Bros., Inc., 56 F.T.C. 1125 (1960); Kennecott Copper Corp. v. U.S. 381 U.S. 414 (1965); Ford Motor Co., v. U.S. 381 U.S. 414 (1965); Ford Motor Co., v. U.S.,
405 U.S. 562 (1972) for vertical integration.

[8]8 This view underpins the liberal 1985 Department of Justice Vertical Restraints
Guidelines and the permissive policy toward vertical restraints during the Reagan and Bush administrations.

[9]9 Bork, Robert, *The Antitrust Paradox: A Policy at War with Itself* (1978) New York: Basic Books; Posner, Richard A., *Antitrust Law: An Economic Perspective* (1976) Chicago: University of Chicago Press.

[0]0 Fixed proportions can be explained best by way of an example. In the production of holes, inputs are said to be used in fixed proportions if it takes one shovel and one person to dig each hole. In this case, adding an additional shovel (or adding an additional person) will not increase the production of holes.

[1]1 One of Assistant Attorney General Bingaman's first official acts was to repeal the 1985 Vertical Restraints Guidelines. The Department of Justice and the Federal Trade Commission have initiated actions against vertical restraints (see Riordan and Salop, 1994), including cases in health care.

[2]2 Riordan, Michael H. and Steven C. Salop (1995). "Evaluating Vertical Mergers: A Post-Chicago Approach," *Antitrust Law Journal*, 63: 513-568.

[3]3 In markets with multiple providers, however, there is a countervailing pressure. Rival insurers can boycott the vertically-related hospital or physician group. It may have been this sort of pressure that caused Humana to split its hospitals and insurance operations into two separate companies.

[4]4 Krattenmaker, Thomas G. and Steven C. Salop, "Competition and Cooperation in the Market for Exclusionary Rights," *American Economic Review*, Papers and Proceedings, 76 (1986) pp. 109-113; Krattenmaker, Thomas G. and Steven C. Salop, "Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power Over Price," *Yale Law Journal*, 96 (1986) pp. 209-293; Salop, Steven C. and David T. Scheffman, "Raising Rivals' Costs," *American Economic Review*, Papers and Proceedings, 73 (1983) pp. 267-271.

[5]5 Blue Cross/Blue Shield United of Wisconsin, et al. v. Marshfield Clinic, et al., Case No. 95-1965 (7th Cir. slip op. September 18, 1995).

[6]6 Whether BC/BS was foreclosed from the market or not, it is clear that Marshfield's contracts with primary care physicians, in and of themselves, could not have been anticompetitive.

[7]7 See the survey by Katz, Michael L., "Vertical Contractual Relations," in Richard Schmalensee and Robert Willig, eds., *Handbook of Industrial Organization* (1989) Amsterdam: North-Holland.

[8]8 Baker, Jonathan B., "Vertical Restraints with Horizontal Consequences: Competitive Effects of "Most-Favored-Customer" Clauses," *Antitrust Law Journal* 64 (1996) pp. 517-534; Salop, Steven C., (1986) "Practices that (Credibly) Facilitate Oligopoly Coordination," in J. Stiglitz and G.F. Mathewson, eds., *New Developments in the Analysis of Market Structure*, Cambridge, MA: The MIT Press.

[9]9 Block, Robert, Scott Perlman, and Luke Levasseur, "Most Favored Nation Clauses in Contracts Between Health Care Networks and Providers: The Search for Practical Antitrust Guidance," *Antitrust Report* (September 1996) pp. 3-10.

[0]0. **About 90 percent of dentists in Rhode Island provide services to patients covered by Delta Dental of Rhode Island. Further, these dentists derive a significant portion of their revenue from treating these Delta patients (DOJ Press Release, 2/29/96).**

[1]1 The markets are Birmingham AL, Chicago IL, Columbus OH, Miami FL, St. Louis MO, and Little Rock AR. Interstudy Extra June 1996.

[2]2 B.D. Bernheim and M. Whinston, "Multimarket Contact and Collusive Behavior, Rand Journal of Economics, 21 (1990): 1-26.

[3]3 Yao, Dennis, Michael Riordan, and Thomas Dahdouh, "Antitrust and Managed Competition for Health Care," Antitrust Bulletin.