Hospitals' Negotiating Leverage with Health Plans: How and Why Has It Changed?

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Objective. To describe how hospitals' negotiating leverage with managed care plans changed from 1996 to 2001 and to identify factors that explain any changes.

Data Sources. Primary semistructured interviews, and secondary qualitative (e.g., newspaper articles) and quantitative (i.e., InterStudy, American Hospital Association) data.

Study Design. The Community Tracking Study site visits to a nationally representative sample of 12 communities with more than 200,000 people. These 12 markets have been studied since 1996 using a variety of primary and secondary data sources.

Data Collection Methods. Semistructured interviews were conducted with a purposive sample of individuals from hospitals, health plans, and knowledgeable market observers. Secondary quantitative data on the 12 markets was also obtained.

Principal Findings. Our findings suggest that many hospitals' negotiating leverage significantly increased after years of decline. Today, many hospitals are viewed as having the greatest leverage in local markets. Changes in three areas—the policy and purchasing context, managed care plan market, and hospital market—appear to explain why hospitals' leverage increased, particularly over the last two years (2000–2001).

Conclusions. Hospitals' increased negotiating leverage contributed to higher payment rates, which in turn are likely to increase managed care plan premiums. This trend raises challenging issues for policymakers, purchasers, plans, and consumers.

Key Words. Managed care, markets, health plans, hospitals, costs

Despite efforts to reduce hospital utilization and length of stay, hospital care continues to account for a substantial portion of total health care expenses (Levit et al. 2002; Agency for Healthcare Research and Quality 2000). In addition, spending on hospital care is on the rise once again. In 2000, hospital inpatient and outpatient services accounted for 43 percent of the growth in total health care spending, more than twice the share of the 1999 increase (Strunk, Ginsburg, and Gabel 2001).

Over the past three decades, public and private purchasers turned to managed care plans to stimulate greater hospital competition and reduce

hospital expenditures and costs.[1] Two techniques managed care plans used to achieve these goals were selective contracting and utilization management. As we discuss further in the background section, these techniques and other market dynamics weakened hospitals' negotiating leverage with plans.

The purpose of this paper is to provide a recent but longitudinal description of managed care plan–hospital contracting. In particular, the paper focuses on hospitals' market power in contract negotiations with plans.[2] Plan–hospital negotiations continue to be a critical nexus where competitive market forces meet in the managed care world, with significant implications for the organizations involved, the patients and communities they serve, and health care expenses.

Market power is defined as the degree of control or influence an organization has over another organization (Scott 1987; Emerson 1962).[3] Control or influence is shaped by the willingness and ability of one organization to sanction (i.e., punish or reward) another organization that it interacts with to attain key goals, such as survival, growth, or increased margins. The origin of market power is the dependency one organization has on the resources controlled by another.

Two specific questions about hospitals' market power are addressed in this paper. First, how has hospitals' negotiating leverage with managed care plans changed from 1996 to 2000? Second, what factors explain any changes in hospitals' negotiating leverage between 1996 and 2000?

Our findings suggest that many hospitals' negotiating leverage increased significantly since 1996, with the largest gains occurring over last two years. While almost all hospitals were "contract takers" in 1996, some hospitals are now "contract makers or breakers." The negotiating leverage of other hospitals has improved as well, although less dramatically.

Two types of evidence support this conclusion. First, serious contract disputes were much more frequently reported in 2000 compared with 1996. The prevalence of these disputes across diverse markets signals hospitals'

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increased willingness to exercise market power, as well as their assessment that they have the ability to do so given current market conditions. We observed contentious disputes in 7 out of 12 markets, and reports of other serious contract disputes throughout the country have appeared in the trade literature (for example, see Benko and Bellandi 2001). In some cases, hospitals terminated contracts, a behavior unheard of in the mid-1990s. Second, different types of respondents all perceived that hospitals were "winning" disputes. They noted that hospitals have been able to secure payment rate increases and significantly influence other contract terms. While there is variation across markets and within the hospital sector, a major change over the past five years is that many hospitals are now willing, and successfully able, to exercise market power in contract negotiations.

We argue that between 1996 and 2000, significant changes in three areas converged to increase hospitals' market power: the policy and purchasing context in which plan–provider contract negotiations take place, the managed care plan market, and the hospital market. We identify specific changes in each of these three areas noted by interview respondents and largely supported by secondary quantitative data and describe how they impact hospitals' negotiating leverage with plans.

Our findings are consistent with prior research. Many previous studies documented factors that result in plans' increased negotiating leverage with hospitals. This recent, longitudinal study shows that many of these factors are still important but that the direction of change has reversed, shifting market power back to many hospitals. These findings also provide insight into why hospitals are now more willing to exercise market power; hospitals may have had some ability to exercise market power several years ago but they did not use it. Recently, hospitals' increased financial distress and a sense of opportunity converged, leading them to exercise their leverage with plans.

BACKGROUND

Over the past fifteen years, much has been learned about how managed care affects plan–hospital contracting and hospital prices.[4] Following is a brief review of the literature.

Selective contracting was one of the major innovations of managed care that changed competitive dynamics in the hospital sector and increased plans' negotiating leverage with hospitals. Under selective contracting, plans would

contract with a subset of hospitals in the market and, through a variety of techniques, strongly encourage physicians and members to only utilize those facilities. In short, the plan would channel most of its members to a smaller number of hospitals. Several studies based on data from the late 1980s and early 1990s found that managed care plans contracted with less than half of the hospitals in their markets (Zwanziger and Meirowitz 1998; Feldman et al. 1990).

The threat of a plan excluding a hospital from a contract, and channeling large blocks of patients elsewhere, changed hospital competition and plan–hospital negotiations in several important ways. First, hospital competition shifted from a physician/patient driven phenomenon to more of a payer/plan driven phenomenon. A hospital first had to secure a contract with a plan before competing for individual physicians and patients. Second, price became a much more important dimension on which hospitals competed. Purchasers were more sensitive to insurance premium increases than individual consumers were to hospital charges because they bore a greater portion of the costs. Therefore, they pressed plans to negotiate better contracts (i.e., lower payment rates, more favorable terms) with providers. Third, other managed care techniques, such as utilization review and management, reduced inpatient length-of-stay (LOS) and shifted more care to outpatient settings, resulting in a relative oversupply of hospital beds. This excess capacity in the market enhanced plans' ability to move large numbers of patients from one hospital to another if the hospital did not agree to the plans' contract terms.

A recent review of the literature concludes that through selective contracting, plans have been able to slow the rate of hospital price, and presumably cost, increases (Morrisey 2001). The author also draws several other tentative conclusions by extrapolating from two national studies of the effects of managed care and hospital competition on costs (Gaskin and Hadley 1997; Bamezai et. al. 1999). First, health maintenance organization (HMO) penetration has a greater retarding effect on hospital cost growth than preferred provider organization (PPO) penetration, although the effects of HMO and PPO penetration are additive. Second, and related, less restrictive forms of managed care require greater levels of market penetration to achieve the same effects on hospital costs.

Several other characteristics of managed care plan and hospital markets affect plan–provider negotiations, and ultimately hospital prices (Melnick et al. 1992). First, the larger the percent of a hospital's total patient days accounted for by a plan, the greater the leverage the plan has with the hospital.

However, beyond a certain point there are diminishing returns. When a plan becomes relatively dependent upon a hospital (i.e., a relatively large share of a plan's patients use a single hospital), the plan pays higher prices. Second, plans pay even higher prices if the hospital market is less competitive (i.e., more highly concentrated). Finally, higher hospital occupancy rates marketwide result in higher prices. Plans' threat to channel large numbers of patients elsewhere is less credible when there is less idle capacity.

To summarize, high HMO penetration, low hospital concentration, and low marketwide occupancy rates decrease hospitals' leverage with plans and result in lower hospital prices. Hospitals, however, are aware of this formula and may pursue a variety of strategies in response, including mergers and acquisitions.

Whether horizontal mergers among hospitals lead to greater negotiating leverage and higher prices remains a hotly contested issue. Findings from existing studies differ markedly. Some studies conclude that mergers result in higher prices, potentially blunting savings achieved through managed care (Simpson and Shin 1998; Keeler, Melnick, and Zwanziger 1999). Other studies find that mergers lower prices, consistent with the thesis that they lead to economies of scale and the reduction of excess capacity (Connor and Feldman 1998; Connor, Feldman, and Dowd 1998). Various studies also report conflicting findings about whether the profit-status of the two merging hospitals affects prices (see for example Lynk [1995] and responses by Dranove and Ludwick [1999], Keeler, Melnick, and Zwanziger [1999], and Simpson and Shin [1998]).

Methodological differences between the studies may explain these inconsistent results (Morrisey 2001). For example, studies use different approaches to measuring mergers and do not control for case mix, which may be correlated with increased system size. Studies also differ in terms of the time-period examined (i.e., specific years, cross-sectional rather than longitudinal data), examination of the effect of actual mergers as opposed to simulated ones, and the extent to which other organizational characteristics of the merging hospitals (e.g., occupancy rates, level of expenses) are considered.

Less is known about the impact of vertical integration on hospital competition and prices. Current thinking is that vertical consolidation between hospitals and physicians (or between insurers and providers) has the potential to enhance efficiency but also to enhance the market power of health care organizations in markets with significant barriers to entry (Haas-Wilson and Gaynor 1998). There is a relative absence of empirical work,

however, on the benefits and costs of different types of vertical integration (see Greenberg 1998 for a case study).

There is still a great deal to learn about the impact of managed care on plan–hospital negotiations. Managed care and hospital markets continue to evolve at a rapid pace, yet much of our current knowledge is based on data from the mid-1990s or earlier. However, many quantitative data and methodological challenges remain, limiting and slowing further research in this area (Bernstein and Gauthier 2001).

Data and Methods

This study utilizes data from the Community Tracking Study (CTS), specifically longitudinal case studies of 12 nationally representative communities with more than 200,000 people. Since 1996, 50 to 90 semistructured interviews have been conducted every two years with health care leaders in each community (685 interviews in round one, 649 in round two, and 895 in round three). The third round of CTS site visits took place between June 2000 and March 2001. Further information about the CTS study design and data collection and analysis methods can be found in several articles (Lesser, Ginsburg, and Devers 2003; Ginsburg et al. 2000; Kemper et. al 1996).

Interview respondents most relevant for this paper include leaders of hospitals, managed care plans, trade associations, and general market observers (e.g., local journalists and academics). In the case of hospitals, we identified the three largest systems or freestanding hospitals, a safety net system or hospital if not included among the three largest, and a smaller system or hospital (often in the surrounding suburban areas).[5] In the four smallest communities (less than 1.5 million people), we were able to interview representatives from all of the major systems or hospitals. In our medium- to large-sized markets, the four systems we interviewed typically controlled the majority of hospital market share.

The types of individuals we interviewed from systems and hospitals included: chief executive officer (CEO), vice president for planning, director of managed care contracting, director of physician–hospital integration, and medical director.

Five types of managed care plans were targeted for study in each community: a large national plan, a large Blue Cross Blue Shield plan, a large local or regional plan, and two additional plans. Individuals we typically

interviewed from each of these plans included: the chief executive officer (CEO), the medical director, and executives responsible for network development and contracting, marketing, Medicare, utilization or care management, and pharmacy.

Topics covered in all three rounds of interviews include: criteria plans use to select hospitals for their networks; predominant type of payment arrangement between plans and hospitals; general payment rate levels (e.g., percent of Medicare) and trends (e.g., increasing or decreasing, by what percent); included or excluded services (e.g., mental health) and benefits (e.g., pharmacy); other features of plan–hospital contract terms (e.g., existence of all-product clauses); nature of plan–provider relationships, including contract disputes; and, views about which market actors currently have the greatest market power.

Interview notes were written-up by the primary interviewers, frequently with the aid of an additional note-taker who accompanied them during the interview (Lesser, Ginsburg, and Devers 2003). In all three rounds, syntheses were written immediately following each site visit and were also available for analysis. These syntheses were based on the raw interview data and provided a summary of key findings from the market.

In addition to the interview data and syntheses, secondary qualitative data (e.g., local newspaper articles, annual reports from hospitals or plans) were used to track developments in the 12 markets.

Secondary quantitative data from InterStudy and the American Hospital Association are also used to obtain descriptive statistics on health plan and hospital market characteristics. We used this data to assess the magnitude of change in the plan and hospital markets since 1996. Finally, we compared this data with local market participants' assessments of changes in plan and hospital market characteristics.

A variety of well-established techniques were used to draw and verify conclusions from the raw interview and other qualitative data (Lesser, Ginsburg, and Devers 2003; Devers 1999; Miles and Huberman 1984).

There are four major strengths to this study design. First, no other research has described the evolution of plan–hospital contracting over a five-year period in a nationally representative sample of markets. The 12 markets vary on a variety dimensions and the study is recent, yet longitudinal in nature. Second, this research uses a broad definition of market power (i.e., increased control or influence over another organization in a key area) as well as why and how an organization exercises market power. Third, the semistructured interviews help us better understand why and how hospitals' negotiating

leverage is changing. Finally, the study utilizes descriptive quantitative data, which provides greater insight than using qualitative data alone.

There are four weaknesses of the study. First, we do not have detailed information on specific plan–hospital contracts (including payment rates) and hospital costs over time. The absence of current, detailed information about plan–hospital contracts, payment rates, and hospital costs is a common problem in research in this substantive area (Bernstein and Gauthier 2001). However, the general information we collected about payment rates and contract terms from knowledgeable and diverse interview respondents allowed us to detect important changes in hospitals' negotiating leverage. Second, we were unable to explain current variation across markets and within the hospital sector. We attempted to use qualitative comparative analysis (Ragin 1999) to identify combinations of market conditions that led to contract disputes or higher payment increases in 2000–2001, but we were hampered by a number of data and technical problems.[6] Third, and related, we were unable to quantitatively test whether and how changes over time in three factors (i.e., the policy and purchasing context, the managed care plan market, and hospital market) affect hospital market power. The number of markets and hospitals in the study, as well as the absence of hospital data on contracts and prices noted above, prevented such analysis. Finally, we typically spoke with the largest systems and hospitals that are likely to have more market power. Although we purposively sought out a smaller system or hospital, and interviewed other respondents with knowledge of hospitals generally (e.g., plan executives responsible for network development and contracting), we were unable to completely avoid this bias.

RESULTS

From "Contract Takers" to "Contract Makers or Breakers"

In 1996, hospitals' market leverage with plans was decreasing, and some would argue at a historic low relative to its height during the fee-for-service years. By all respondents' accounts, hospitals were "contract takers." Hospital prices were flat or declining and hospitals were beginning to accept greater financial risk from health plans. Two papers based on the Community Snapshots Project, the precursor of the Community Tracking Study, provide a historical description and record of hospitals decreasing market power just prior to this period (Duke 1996; Miller 1996).[7]

Despite the significant downward pressure on hospital prices and new payment arrangements, there were no major plan–provider contracting disputes reported in the CTS markets during our site visits in 1996–1997. We define plan–provider contracting disputes as extremely contentious (i.e., one or both sides threatens to terminate a contract or actually does so), prolonged, and sometimes highly public. Hospitals felt that they had to sign unfavorable managed care contracts because they feared exclusion from plan provider networks. Exclusion would have had an immediate and measurable effect on hospitals, as well as uncertain long-term implications. Anticipating significant managed care growth, hospitals sought to learn more about how to function in such an environment and to establish business relationships with growing managed care plans. They also consolidated horizontally and vertically (with plans and physicians) in an effort to improve their negotiating leverage (Kohn 2000).

Hospitals' market power remained relatively weak during our second round of site visits in 1998, despite increased consolidation. Some hospitals had achieved "must-have" status in plan networks and increased their negotiating leverage, but most continued to experience flat or declining payment rates during this period (Lesser and Brewster 2001). Consolidation primarily helped hospitals stave off deeper discounts and more unfavorable contract terms. In addition, respondents did not report any instances of plan–provider contract disputes. Many hospitals in the 12 CTS markets still anticipated managed care growth and remained in a relatively defensive contracting position. They also were preoccupied with implementing horizontal and vertical integration strategies.

During the 2002–2001 site visits, a dramatic reversal in hospitals' negotiating leverage with plans was reported. Hospitals in 7 of the 12 CTS markets became "contract makers or breakers" rather than "takers." These hospitals took very aggressive negotiating stances with managed care plans, frequently demanding price increases two to three times more than plans offered and seeking other favorable contract changes as well. Hospitals also attempted to win consumer support via direct communication (e.g., letters, telephone hotlines, conversations with hospital employed or affiliated physicians) and public relations efforts. For the first time, hospitals were willing to terminate contracts, potentially disrupting patient care, unless their demands were met. Table 1 indicates in which markets these contract disputes occurred, the number of plans and hospitals involved, and the general outcomes.

Several features of these plan–provider showdowns are worth noting. First, contract disputes occurred in all four of the large markets but were less common in the medium and small markets. Although not explicitly

Table 1: Contract Disputes, 2000–2001

CTS Market	*Contract Disputes (Yes/No)*	*No. of Plans Involved*	*No. Systems or Hospitals Involved*	*Outcome(s)*
Large Markets (Population greater than 2.251 Million)				
Boston	Y	3	1	Rate increases—approximately 9% per year
Phoenix	Y	3	2	Rate increases—low double digits "Terminate then Renegotiate"—approximately 3% per year Termination
Orange County	Y	14	1	"Terminate then Renegotiate"—Approximately mid double-digits Termination
Seattle	Y	3	3	Rate increases—approximately 8% per year Termination
Medium Markets (Population between 1.5 and 2.251 Million)				
Cleveland	N			
Indianapolis	N			
Miami	Y	4	4	Rate increases—low to mid double digits
Northern New Jersey	Y	1	1	Rate increases—approximately 9% per year
Small Markets (Population less than 1.5 million)				
Greenville	Y	2	2	Rate increases—low double digits
Lansing	N			
Little Rock	N			
Syracuse	N			

Source: CTS site visit interviews, 2000–2001

commented on by respondents, possible reasons for this pattern include: the relatively larger number of plans and hospitals (i.e., more alternatives if contract negotiations failed); greater tension between plans and providers due

to relatively high HMO penetration and prior pressure on payment rates; and, less community pressure to settle disputes. Second, in 4 of the 7 markets the contract disputes were relatively widespread, involving multiple plans and hospitals. In three other markets, the contract disputes involved a single prominent hospital system. Third, in three markets, some hospitals actively terminated contracts with no intent to renegotiate after the final termination. These systems viewed termination of unprofitable contracts as an explicit strategy to improve their financial performance. By effectively turning the table on plans, they cut their losses on poor contracts, hoped to secure better contracts with the remaining plans, and reduced their administrative burden. In one case (Orange County), the hospital system (St. Joseph Health System) and plan (PacifiCare) could not ultimately reach an agreement. Finally, the remaining contract disputes were resolved with both the plan and hospital participants and market observers viewing hospitals as the clear "winner" in symbolic and tangible terms. Price increases reportedly won by hospitals ranged from 3 to 20 percent per year, with average price increases in the high single to low double-digits. (See Strunk, Devers, and Hurley 2001 for further details on two of these plan–hospital contract disputes.)

Many other hospitals in the CTS markets "privately and peacefully" negotiated for a combination of price increases and improved contract terms. Price increases in these cases were generally not as high, ranging from 3 to 9 percent but averaging 5 to 6 percent. Plan and provider respondents noted in all 12 markets that hospitals had also gotten savvier in contract negotiations.

The contract term changes that hospitals frequently sought and won include:

1. *Less Risk.* In general, hospitals pushed risk (e.g., global, shared) back to plans and sought to maintain payment mechanisms they believed were more favorable (e.g., per diem, case rates) (Hurley et al. 2002). Hospitals also sought to exclude benefits and services that were costly or they felt they had relatively less control over (e.g., out of area services, pharmaceuticals).
2. *Prompt Payment.* Slow payment from plans creates significant cash-flow problems for hospitals. In states where prompt payment legislation had not already been passed or rigorously enforced, hospitals sought and often won prompt payment provisions in their individual contracts with penalties for lack of compliance.
3. *No Adverse Utilization Management Decisions.* Payment for services delivered had also been a significant source of conflict between plans

Table 2: Group with Greatest Leverage in the Market

Respondents (N = 228)	*No. Respondents Mentioning Group*	*% Respondents Mentioning Group*
Providers—Hospitals	166	70%
Plans	121	51%
Purchasers	43	18%
Consumers	8	3%

Source: CTS site visit interviews, 2000–2001.

and hospitals. As a result, hospitals sought and frequently won new contract language that prohibited retroactive denials of claims or the "downgrading" of inpatient days from a higher to a lower paying service category.

4. *Shorter or Longer Contract Length.* Hospitals attempted to move away from the commonly used 2- to 3-year contract duration. Some sought greater flexibility through year-to-year contracts while others negotiated payment rate increases for a 5- or 6-year period.

Two concluding interview questions asked of a subset of respondents ($n = 228$) in round three were: (1) "Which actors—purchasers, plans, providers, or consumers—currently have the greatest leverage in (specific market)?" and; (2) "How has the balance of power between these actors changed over the last two years, if at all?"

Table 2 summarizes the number and percent of respondents mentioning that a particular group—purchasers, plans, providers (hospitals), or consumers—currently had greatest leverage in the market.[8] As the table shows, 70 percent of the respondents specifically stated that hospitals or providers generally (hospitals and physicians) currently have the greatest leverage in the market. Plans were mentioned frequently also (51 percent), with some respondents indicating that both plans and providers had power. Overall, however, respondents from different types of organizations noted that hospitals and providers had "momentum." Purchasers and consumers were much less frequently mentioned as having leverage.

The following quotes provide a flavor of respondents' answers.

> Two years ago, plans had the greatest leverage. Now providers have organized and there is a more level playing field. We have gotten some concessions. [Hospital respondent, P106: 45, 462–8]

> The providers have prevailed over the last two years. [Benefit consultant, P246: 52, 552–3]

> Right now, providers are on top, winning the public relations battle. There is a growing alliance between the people and the providers, and it is hard to beat this politically. It is also hard for the employers to step into the battle. [Employer respondent, P242: 40, 507–17]

> Power has shifted more toward the provider side, given the managed care backlash…Providers are no longer fearful of being left behind if they are not part of a network. They are willing to say "no" to contractors, not willing to be rushed to get on board with managed care. This is different, especially compared to five years ago. [Plan respondent, P18: 27, 299–305]

In sum, a significant shift in hospitals' negotiating leverage took place between 1996 and 2000. Hospitals are more aggressively negotiating with plans, securing price increases and improved contract terms. In many of the CTS markets, these increases are well beyond what plans sought to pay, and were sometimes achieved through contentious contract disputes.

Factors Explaining Change in Hospitals' Increased Market Power

Key changes in three general areas noted by respondents directly or identified by comparing and contrasting interview responses from 1996–1997 to 2000–2001, explain increased hospital negotiating leverage since 1996. These three areas are: the policy and purchasing context in which plan–hospital negotiations take place; the characteristics of the plan market; and the characteristics of the hospital market. Table 3 summarizes significant changes in each of these areas and their impact on hospitals' negotiating leverage with plans.

Policy and Purchasing Context

Since 1996, three key changes in the policy and purchasing context have occurred that weakened managed care plans' negotiating leverage with hospitals. Two of these three changes reflect the growing backlash against managed care. First, managed care plans faced increased regulation (e.g., any willing provider laws) at the state level (see Draper et al. 2002; Marsteller et al. 1997) and the possibility of legislation at the federal level (i.e., patients' bill of rights). This legislative environment has reduced plans' ability to selectively contract and to aggressively manage utilization, increasing hospitals' negotiating leverage with plans.

Second, employers were more sensitive to employees' concerns about managed care and demanded plan products that offered greater consumer choice (Trude et al. 2002; Christianson and Trude 2003). A tight labor market

Table 3: Key Changes Effecting Hospitals' Negotiating Leverage with Plans, 1996–2000

	Increases—Hospitals' Leverage	*Decreases—Hospitals' Leverage*
Policy and Purchasing Context		
Health plan regulation	X	
Employer/employee demand for "Choice"	X	
Flat or declining enrollment in Medicare and Medicaid managed care programs	X	
Characteristics of Plan Market		
Less HMO growth than anticipated	X	
Less restrictive HMO Products:	X	
Less selective contracting		
Less risk-contracting		
Looser UM practices		
Ability to absorb hospital payment rate increases due to rising premiums		X*
Plan consolidation		X
Characteristics of Hospital Market		
Consolidation	X	
Brand name identity	X	
Physician integration	X	
Capacity constraints located in key geographic submarket	X	
Financial pressure		X*

*Increases hospital willingness to exercise leverage.
Source: CTS site visits, 1996–2001

and rising corporate profits shifted employers' attention from controlling costs to retaining employees by maintaining or improving their health insurance benefits. During plan–provider contract disputes, employers either pressed plans to settle the dispute so employees' health care was not disrupted or remained absent from the fray. This type of employer behavior is markedly different from that in 1996, when employers were viewed as the primary driver of plans' aggressive cost-cutting strategies.

The third key change was in public programs (i.e., Medicare and Medicaid). Fewer beneficiaries than anticipated enrolled in the Medicare+ Choice program and many private plans exited both the Medicare and Medicaid markets. Hospitals' once faced the prospect of private managed care plans controlling the flow of an increasing number of public beneficiaries as well as private, commercial enrollees but this was no longer the case by 2000.

Table 4: Plan Market Characteristics

	HMO Penetration 2000	*% HMO Penetration Change 1996–2000*	*No.[1] of Plans 2000*	*Change in No. of Plans 1996–2000*	*HMO[2] HHI 2000*	*% Change in HMO HHI 1996–2000*
Boston	43.1	16.8	9	−3	2,600	−10.3
Northern NJ	31.5	49.3	9	−4	1,800	−5.3
Orange County	34.7	16.3	18	−2	1,400	+27.3
Seattle	19.2	−7.7	5	−4	3,500	0
Cleveland	30.6	54.5	15	−1	1,300	−31.6
Indianapolis	21.9	8.4	11	+3	2,300	+4.5
Miami	43.8	−17.2	16	−1	1,200	+7.7
Phoenix	34.7	4.8	8	−1	1,300	0
Greenville	11.2	100.0	6	0	4,800	−18.7
Lansing	33.4	−15.4	5	−1	4,900	+53.1
Little Rock	21.7	19.9	5	0	3,500	+16.7
Syracuse	15.5	−13.9	6	−1	3,000	−6.7
CTS Market Average	28.4	18	9.4	1.25	3,500	+3.1
CTS Market Range	11.2–43.8	(−17.2)–(+100)	5–18	(−4)–(+3)	1,200–4,900	(−1.6)–(+53.1)

[1]The number of plans was adjusted from those reported by InterStudy *Competitive Edge* (11.1, July 1, 2000). Medicaid-only plans were excluded and subsidiaries of the same parent organization were combined.

[2]Figures calculated from InterStudy *Competitive Edge* data (11.1, July 1, 2000, and 7.1, June 1997). They report an index of competition for each MSA that is 1-Herfindahl Hirschman Index (HHI). We subtracted the index of competition value from 1 to get the HHI. We were unable to adjust the Boston MSA figures to the CTS market area. A market with an HHI of less than 1,000 is considered unconcentrated; those between 1,000 and 1,800 are considered modestly concentrated; and those greater than 1,800 are considered highly concentrated (U.S. Department of Justice and Federal Trade Commission, "Horizontal Merger Guidelines." Issued April 2, 1992; revised April 8, 1997. Section 1.5).

Characteristics of the Health Plan Market

Health plans responded to changes in the policy and purchasing context by offering less-restrictive managed care products (Draper et al. 2002). As Table 4 indicates, in four CTS markets (Seattle, Miami, Lansing, and Syracuse) HMO enrollment declined between 1996 and 2000, and grew most dramatically in markets with low HMO enrollment initially.[9] In addition, HMO products are more loosely managed than they were in 1996.

One of the central ways managed care plans became less restrictive was by offering broad provider networks, which means less selective contracting with providers by managed care plans. When asked what criteria plans use to

select providers for their network in 2000–2001, respondents often stated, "no one is excluded." Respondents noted plans' increasing emphasis on wide geographic coverage and the fact that many HMO plan networks overlap significantly.

The inclusiveness of plan networks changed plan–hospital contract negotiations and leverage in three significant ways. First, the threat of excluding a hospital if contract terms could not be agreed upon was less credible. A narrower hospital network would make the plan product less attractive to purchasers and consumers, so plans had more of an incentive to include providers in the network. Second, even if the threat was credible, exclusion may have had less impact on the hospital overall because the percentage of the hospitals' admissions coming from a single plan may have been declining due to less selective contracting and broad provider networks. In addition, some hospital respondents reported they were paid more if a patient not covered under a contract was admitted to their hospital. Finally, hospitals began adjusting their pricing in light of the fact that managed care plans could no longer guarantee greater patient volume. Hospital respondents realized they had continued to give plans discounts despite plans' reduced ability to channel patients to their facilities.

A second key change in the plan market was rising premiums. Plans in the 12 CTS markets were increasing premiums in the high single to low double-digit percent range, allowing them to better tolerate hospital price increases if necessary. Hospital respondents viewed this period as an opportunity to press for reimbursement increases and argued that a significant portion of these relatively high premium increases should be used just to "restore and re-set" what they characterized as low, unsustainable payment rates.

The third key change in the health plan market noted by respondents was consolidation in the health plan market. Unlike the two other developments in the health plan market, the decline in the number of plans can potentially curb hospitals' negotiating leverage. Table 4 indicates that the number of operating HMOs declined in 9 of the 12 markets between 1996 and 2000.[10]

However, the decline in the number of HMOs was generally not accompanied by an increase in consolidation as measured by the Herfindahl Hirschman Index (HHI).[11] As the change in the last column of Table 3 indicates, there was a substantial increase in HMO consolidation in only three markets (Orange County, Lansing, and Little Rock). The level of HMO consolidation remained the same or declined in 7 of the 12 markets despite a

number of plan exits. This is most likely due to the exit of plans with small market shares from the markets.

Overall, developments in the plan market weakened plans' negotiating leverage with hospitals. As managed care products became less restrictive, the prevalence of selective contracting declined. In addition, competition in the plan market remained relatively stable or increased only slightly. Finally, the up-tick in plan premiums was viewed by hospitals as a critical opportunity to negotiate reimbursement rate increases and plans were better able to absorb such increases if necessary.

Characteristics of the Hospital Market

During our site visits in 1996, hospitals were launching a number of strategies to respond to the anticipated growth of managed care and strengthen their negotiating leverage. The concept of organized or integrated delivery systems underlay many of the specific strategies hospitals pursued (Shortell, Gillies, and Anderson, 1996). The assumption was that HMOs would become the predominant type of insurance, as would several tools associated with it (selective contracting and capitation). As a result, freestanding hospitals needed to transform themselves from organizations providing acute care services into systems capable of managing both financial risk and the continuum of care for a defined population of patients (e.g., covered lives). To realize this vision, hospitals pursued horizontal and vertical integration strategies with other hospitals, physicians, and health care organizations (e.g., health plans, nursing homes). These horizontal and vertical integration strategies also have the potential to increase hospitals' market power.[12]

One of the key changes in the hospital sector since 1996 is the level of consolidation. In 1996, 17 mergers were underway in 10 CTS markets, and the vast majority of them (14) involved local not-for-profit hospitals (Lesser and Brewster 2001). Since that time, additional mergers and closures have occurred in the CTS markets. The number of systems operating in each market is now quite small, with 3.5 hospital systems operating in each market on average and a substantial number of all hospitals in the market participating in these systems (see Table 5).

In contrast to the plan sector, the decline in the number of systems and hospitals operating in the market was accompanied by an increase in hospital concentration, as measured by the HHI. On average, the level of hospital consolidation increased by 34 percent. This relatively large increase is partially because the hospital market was less consolidated than the plan

Table 5: Hospital Market Characteristics

CTS Market	*No. of Systems 2000*[1]	*Hospital*[2] *HHI 2000**	*% Change in HHI 1996–2000*	*Four Firm CR*[3] *2000*	*Median Occupancy*[4] *Rate 2000*	*% Change in Occupancy 1996–2000*
Boston	7	734	+27.4	46	65	+7.7
Northern NJ	2	1,376	+48.9	62	68	− 1.4
Orange Co	5	1,585	+40.6	72	49	+5.8
Seattle	3	1,005	+28.0	55	65	+12.9
Cleveland	4	1,899	+88.2	71	51	+3.4
Indianapolis	4	1,355	+20.8	68	51	+12.5
Miami	4	1,304	+20.6	67	65	+12.8
Phoenix	7	1,421	+20.9	58	60	+9.1
Greenville	2	2,466	+15.7	87	51	− 9.3
Lansing	2	5,504	+86.1	100	37	− 15.1
Little Rock	2	2,034	+6.1	81	70	+35.7
Syracuse	0	1,416	+3.1	67	73	+10.7
CTS Market Average	3.5	1,842	+33.9	70	58.8	+7.1
CTS Market Range	0–7	734–5,504	(+3.1)–(+88.2)	46–100	37–73	(− 15.1)–(+35.7)

[1]The figures reported in this table are based on the 1996 and 2000 AHA raw hospital survey data files, with multihospital systems counted as one hospital. The AHA multihospital system variable has been cleaned for 1996–2000 based on the Community Tracking Study's knowledge of the market and information provided in other sources (e.g., hospital systems' web pages). Figures based on CTS cleaned and recoded data are typically higher on each of the specific measures reported here.

[2]HHI is based on total adjusted patient days. A market with an HHI of less than 1,000 is considered unconcentrated; those between 1,000 and 1,800 are considered modestly concentrated; and those greater than 1,800 are considered highly concentrated (U.S. Department of Justice and Federal Trade Commission, "Horizontal Merger Guidelines." Issued April 2, 1992; revised April 8, 1997. Section 1.5).

[3]Percent of total adjusted patient days accounted for by the largest four systems or hospitals.

[4]The occupancy rate is defined as IPHD (Item Number 423), Hospital Inpatient Days/365

*BDH (Item 421), Hospital Unit Beds Set Up and Staffed (total facility beds—nursing home beds).

market initially. However, the largest four systems or hospitals now control 70 percent of the market share on average (see Table 5—Four Firm Concentration Ratio).

In addition to consolidating through mergers, respondents noted that many hospitals maintained or built reputations for service and quality with consumers and physicians through advertising and investment in high-tech services. As a result, they now enjoy "must have" status in plan networks. Building "brand name identity" is a strong antidote to selective contracting and price competition. Some respondents reported that as managed care products have become less restrictive, hospital reputation (i.e., "Class A"

versus "Class B" hospitals) has become more important since plan members still enjoy first dollar coverage regardless of which hospital they use (Devers, Brewster, and Casalino 2003).

Another key change was the level of hospitals' vertical integration with physicians (e.g., physician practice acquisition, formation of intermediary organizations such as physician–hospital organizations). Greater hospital–physician alignment strengthened hospitals' negotiating leverage and weakened plans' options. Many hospitals had implemented a range of physician-integration strategies, becoming a critical gateway for plans to physicians in the market. In many of the contract disputes noted above, plans were negotiating with hospital–physician organizations for physician professional services as well. In at least one case, the plan attempted to "divide and conquer" by contracting with physicians directly but the physicians remained aligned with the hospital system. Although physician-integration strategies often have not achieved some of their intended goals (e.g., greater clinical integration), hospitals have retrenched them rather than abandon them completely (Lake et al. 2003). Concern about the impact of dissolving hospital–physician organizations on the hospitals' negotiating leverage and competitive position has motivated hospitals to maintain these physician organizations and relationships.

In addition to horizontal and vertical integration and strengthening reputation, two other developments in the hospital sector affected hospitals' willingness and ability to exercise leverage in negotiations with plans. The first was mounting financial pressure, which prompted hospitals to test their negotiating leverage with private plans. Cutbacks in Medicare reimbursement rates that resulted from the Balanced Budget Act of 1997 (BBA) were being implemented and limited hospitals' ability to shift costs to public payers. At the same time, hospital costs were rising due to newly emerging labor shortages, new technologies (including investment in information systems), and pharmaceuticals. Mounting financial pressure was one of the primary reasons respondents gave for hospitals' more recent, aggressive negotiating stances. Several respondents noted that the hospital sector had been relatively consolidated (horizontally and vertically) for some time, but systems had not previously attempted to "flex their muscle." One hospital respondent articulated the sentiment well, noting "[h]ospitals shook out of their complacency and got tough."

Second, hospital capacity constraints reportedly developed in some markets and submarkets. The most visible sign of capacity constraints was the increasing frequency of emergency room diversions, however, these

constraints exist in other hospital departments and units because of prior downsizing and reconfiguration and current labor force shortages (Brewster, Rudell, and Lesser 2001).[13] Secondary quantitative data from AHA suggests that hospital capacity is tightening but does not fully support interview respondents' assessments. As Table 5 shows, the median hospital occupancy rate remained relatively low in the 12 markets (58.8 percent), although it had increased in 9 of the 12 CTS markets between 1996 and 2000. However, these rates may not fully reflect recent market developments (e.g., hospital labor shortages) that may restrict hospitals' ability to utilize existing capacity, or variation within markets (i.e., hospitals with virtual monopolies in geographic submarkets and high occupancy). For example, the low median occupancy rate in Lansing (37 percent) reflects the presence of several small rural hospitals with extremely low occupancy (e.g., 26 percent).

DISCUSSION

While there are a number of limitations to this research, our findings strongly suggest that many hospitals are asserting their power in local markets across the nation, a dramatic reversal from their market position when the study began in 1996. In addition, our research suggests that a variety of factors have changed and converged over the past five years to improve hospitals' market power (see Table 3).

Results of this study are consistent with existing literature on the impact of HMO penetration and selective contracting on hospital prices, although the direction of change has reversed. As HMO enrollment and selective contracting decreased, and broad provider networks have become the norm, hospital prices have risen. This trend seems to hold even in the eight markets where the HMO market is highly consolidated.

There has been much debate as to whether horizontal consolidation in hospital markets leads to higher prices, particularly among nonprofit hospitals. Our findings suggest that hospital mergers result in higher payment rates, although we cannot control for all the confounding factors, including rising hospital costs. Many respondents indicated that consolidation was one of the most significant changes since round one, and that without the current level of consolidation, hospitals would not have secured such high payment rate increases from plans.

Vertically integrated hospitals and systems, particularly those that have formed strong alliances with physicians, also appear to be able to exercise

greater market power. Joint hospital–physician contracting and practice ownership prevents plans from undermining hospitals' negotiating leverage by going directly to physicians. In addition, physicians are the key link to patients and consumers, so their allegiance with hospitals in contract disputes is critical.

Tight hospital capacity due to hospital staff shortages or location in important geographic submarkets also appears to increase hospitals' market power. The threat of a plan excluding a hospital or system from its network and channeling a large volume of patients elsewhere is less credible under such conditions.

Finally, mounting financial pressure within the hospital sector spurred hospitals to test their market power with private plans. Hospitals have been under financial pressure for some time. However, over the past two years they experienced declining margins or losses because of flat or declining reimbursement rates from both private and public payers while facing rising costs. As a result, they attempted to aggressively negotiate with plans and discovered their market power.

One respondent summarized the shift in hospital strategies by stating, "we've gotten about all we can out of cost-reduction strategies. We have to turn to revenue enhancement strategies." As the prevalence of contract disputes and terminations indicates, revenue-enhancing strategies can include negotiating higher payment rates, more favorable contract terms, or termination. Moreover, as hospitals "win" these disputes and survive terminations, they may be emboldened to continue taking aggressive stances in contract negotiations. Other hospitals may also attempt to follow these hospitals' leads, although they might not have the same ability to exercise market power as those that have been successful to date. As noted, there is some variation in hospitals' ability to exercise market power across and within markets.

The short-term implications of these findings for policymakers are clear. Increased hospital market power will drive hospital expenditures higher and further reduce enrollment in more tightly managed HMO products. A significant portion of managed care plan savings previously were generated from "gutting the hospital," specifically reducing hospital reimbursement rates and shifting care to other settings (Reinhardt 1996). Now, with increased pressure from hospitals, plans may have to raise their premiums to employers further or shift more of the burden onto employees, both of which make the plan and product less popular. While employers want to maintain broad choice and access for employees, someone needs to pay for it. Plan–provider contract disputes are also likely to continue occurring in the short term,

resulting in consumer concerns about access to providers of choice and continuity of care (see Short, Mays, and Lake 2001 on the impact of plan network instability for consumers). Plans now operating in a very different market context than in 1996, must determine how to respond. Contract disputes and terminations can result in membership losses and negative publicity, but the price of peace can also be very costly.

The long-term implications of hospitals' increasing market power are less clear. While the level of hospital consolidation is unlikely to decrease, the factors outlined in Table 3 may change and new ones may emerge. Three factors are likely to have a significant impact on whether hospital market power continues to increase in the future. The first is purchasers' response to rising premiums, in particular whether their distaste for restrictive managed care provider networks will continue in the face of double-digit premium increases. The second factor is plans' response to increased hospital leverage, particularly the viability of "tiered network" products. Based on the same principle as three-tier pharmaceutical benefits, plans in two CTS markets (Boston, Orange County) announced plans to offer plan products with "tiered" hospital networks, requiring consumers to pay part of added cost for going to a higher cost, and perhaps higher quality, hospital. The third factor is private purchasers' and policymakers' reaction to hospitals' aggressive negotiating tactics over time. Some employers and purchasing groups are already attempting to take steps to minimize the disruption of care to consumers when contract disputes occur. If these approaches are not effective, state and federal policymakers may take other steps to curb hospitals' market power or prevent further hospital consolidation (Bazzoli and Luft 1998; Hellinger 1998).

These findings suggest a number of fruitful areas for further quantitative, qualitative, and mixed methods research. First, recent studies of the impact of plan consolidation and mix of HMOs and other managed care plan products (e.g., PPOs) on plan–hospital negotiations would be extremely valuable. Similarly, recent studies of the impact of horizontal and vertical integration in the hospital industry are much needed. Second, further research on the variation between and within markets is needed. Although this research strongly suggests that the general trend between 1996 and 2000 was increased hospital market power, some hospitals continue to have little negotiating leverage. The factors outlined in this paper, and Table 3, suggest dimensions researchers might consider when examining variation between markets as well as over time. Third, additional longitudinal studies of hospital–plan contracting are needed. A relatively small number of large plans and

integrated systems (i.e., oligopolies) are now interacting repeatedly in local markets, suggesting the need for empirical case studies that draw on other theories besides neoclassical economics (Robinson 2001). Given the important implications of plan–provider contracting for policymakers and consumers, further research in this area is needed.

NOTES

1. We use the terms spending, expenses, and expenditures to refer to the total amount spent on health or hospital care. Hospital costs to refer to what it costs the hospital to provide the service.
2. We use the term plans to refer to managed care plans specifically throughout the manuscript unless otherwise noted. We also use the terms market power and negotiating leverage interchangeably, since we focus on hospitals' ability to exercise market power in contract negotiations.
3. This sociological definition highlights why and how an organization exercises market power, as well as the outcome (i.e., increased control or influence over another organization in a key area). As such, this definition of market power is broader than those used in economics, which focus primarily on the ability of an organization to influence price. For example, Carlton and Perloff (1994) define market power as the ability of a firm to charge a price above that which would prevail under perfect competition, usually taken to be marginal cost.
4. We use the terms price and payment rate(s) interchangeably to refer to the dollar amount(s) at which hospitals agree to provide specific services to plans and their members, except when reviewing the literature that distinguishes between them. We recognize that actual payment (i.e., what the hospital is ultimately paid) may vary from the negotiated price or payment rate due to differences in contract interpretation and enforcement, but do not make this distinction throughout the paper.
5. Overall, 47.3 percent of all hospitals in the 12 CTS markets are members of a system, which is significantly below the national average of markets of similar size (i.e., more than 250,000 which is the closest census level comparison group to the CTS markets that are representative of markets with more than 200,000 people). Nationally, 59.8 percent of all hospitals in markets with more than 250,000 people are in systems. However, the sample of hospitals in the 12 CTS markets is representative of hospitals found in similar size markets on a variety of other important dimensions, including: urban/rural, bed size, for-profit/nonprofit, and teaching/nonteaching.
6. Further information about these data and technical problems are available from the corresponding author upon request.
7. Only four of the communities in the Snapshot project are part of the Community Tracking Study (Boston, MA; Indianapolis, IN; Orange County, CA; south Florida, now Miami). However, these papers generally capture hospitals' market position relative to plans at the time.

8. The total number of responses ($n = 338$) is more than the total number of interview respondents answering the question ($n = 228$) because some respondents indicated that more than one group had power (i.e., purchasers and plans, plans and hospitals) or power between two groups was equal. When a respondent stated that more than one group had power, or that power between two groups was equal, both groups were counted.
9. This trend is consistent with national survey data that shows that HMO enrollment declined from 29 percent in 2000 to 23 percent in 2001 (Kaiser Family Foundation and Health Education and Research Trust 2001).
10. The HMOs are most important for this paper. However, it is important to note that the number of plans in the market, and the level of plan consolidation, may vary when other types of insurers and plan products (e.g., indemnity and PPO) are considered.
11. The Herfindahl Hirshman Index ranges from 0 to 10,000, with zero representing a perfectly competitive market and 10,000 representing a monopoly. A market with a HHI of less than 1,000 is considered unconcentrated; those between 1,000 and 1,800 are considered modestly concentrated; and those greater than 1,800 are considered highly concentrated (U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, Issued April 2, 1992; revised April 8, 1997. Section 1.5)
12. See Dranove, Simon, and White (2002) on consolidation in the hospital sector between 1981 and 1994 and the role that managed care played in that consolidation as well as the commentary by Vistnes (2002) on the strengths and limits of the findings and the policy implications.
13. Other recent reports by the Health Care Advisory Board (2001a; 2001b) suggest that capacity constraints are occurring nationally.

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