Hospital and Health Maintenance Organization Financial Agreements for Inpatient Services: A Case Study of the Minneapolis/St. Paul Area

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With nearly a quarter of the population enrolled in Health Maintenance Organizations (HMOs) the Minneapolis/St. Paul metropolitan area provides a unique opportunity for studies dealing with the effects of prepaid health plans on the health care marketplace. This study explores one aspect of that market; discounts obtained by HMOs for hospital inpatient service. Using information gathered from structured interviews with the 7 HMOs and 30 hospitals in the Twin Cities area, the study addressed three areas of inquiry: (1) the nature of discount contracts between hospitals and HMOs, (2) the roles played by each party in initiating the contracts, and (3) factors influencing the establishment of the contracts.

While each of the HMOs was found to have at least one hospital contract under which they received inpatient services for other than full-billed charges, the amount of the discount was not substantial in the majority of cases. Other factors such as hospital location and ability to provide a full range of services appear to be as important as financial discounts when HMOs select a hospital for inpatient services.

It appears that hospitals played the lead role in initiating hospital/HMO contracts during the formative HMO years, but this initiative shifted to the HMOs as they gained market shares and bargaining power. Hospitals and HMOs agree that the most important factor influencing hospital willingness to consider discount contracts was and still is the surplus bed availability in the area. This surplus of beds has been exacerbated by a continued decline in hospital utilization. These conditions coupled with increased HMO market shares has recently resulted in intensified contract negotiations and further discounts for inpatient services.

A number of studies have found that Health Maintenance Organizations (HMOs) provide health services in a different and purportedly more efficient manner than conventional fee-for-service practices (Wolinsky, 1980; Luft, 1978). One of the more evident differences centers on the use of hospital services. Since hospital costs account for nearly 40 percent of the health care dollar and represent the largest expense item in the HMO budget, they predictably have devoted considerable effort toward reducing hospital utilization rates for those enrolled in their plans. This has resulted in fewer admissions and in some cases shorter lengths of stay for HMO enrollees compared to those in conventional fee-for-service plans (Luft, 1980; Richardson, 1980).

In addition to the savings accrued through lower hospital utilization rates, HMOs are increasingly obtaining discounted service rates by entering into contractual agreements with hospitals (Christianson, 1979). In some cases these contracts involve hospital discounts in exchange for guaranteed patient volume and at times provisions are included for financial risk sharing.

This paper explores these organizational relationships by examining the contractual agreements be-

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tween the 7 HMOs and the 30 community hospitals in the Minneapolis/St. Paul metropolitan area. The analysis concentrates on three main areas of inquiry: (1) the nature of the contracts between hospitals and HMOs in terms of financial agreements, risk sharing, guaranteed patient volume, and interorganizational linkages; (2) the roles played by each party in initiating and executing the agreements; and (3) factors influencing the establishment of HMO/hospital contracts.

Data were obtained through extensive interviews with hospital administrators and the directors of HMOs and from enrollment and utilization documents provided by those organizations.

The Minneapolis/St. Paul metropolitan area is comprised of seven counties with a population of nearly two million people (1980 census figure). This area has a rich history of innovation in health care delivery. Providing medical care through group practice organizations has long been a tradition. Shared hospital services were initiated in the early 1960's, and much of the pioneering work on the development of multihospital systems was conducted in this area. In recent years, this environment has proven to be especially supportive for the development of health maintenance organizations (HMOs). Prepaid group practice in the Twin Cities dates from 1957 when the Group Health Plan was established as a cooperative. By 1973 when both Federal and Minnesota HMO legislation was enacted, five prepaid groups had already been established and there are now seven HMOs operating in the Minneapolis/St. Paul metropolitan area. These HMOs encompass a variety of organizational models including a full-time salaried physician staff model, four group models, a network model, and an individual practice association (IPA). Table 1 provides a listing and summary description of these models.

Each of the Minneapolis/St. Paul HMOs are distinct and rather unique organizations. Group Health Plan, the only staff model HMO and by far the oldest prepaid plan in the area, began as a consumer cooperative with salaried physicians working in a prepaid group practice setting. Since Group Health Plan was initiated largely by University of Minnesota physicians, they originally hospitalized many of their patients at the University Hospital. As hospitals became more accepting of the HMO concept, Group Health eventually established relationships with other hospitals located throughout the Twin Cities. They also developed a number of satellite clinics in response to the needs of an increasingly large and dispersed membership. Consequently, Group Health Plan now has nine primary care satellite clinics in addition to the base group practice and has service agreements with at least eight hospitals. The satellite clinics are staffed primarily with full-time salaried physicians, but services are also provided through contracts with non-HMO physicians for tertiary care and some obstetric services.

TABLE 1

Selected Descriptive Characteristics of Minneapolis and St. Paul HMOs-1981[1]

Name and Year Established	HMO Model (HMO-Physician Relationship)	Sponsorship	Approximate Number of Physicians	Physician Reimbursement	Enrollment
Group Health Plan (August 1957)	Staff Model	Consumer Cooperative	140	Salary	181,328
MedCenter Health Plan (December 1972)	Group Model	St. Louis Park Medical Center	220	Capitation	91,726
Coordinated Health Care (formerly Ramsey Health Plan) (October 1972)	Group Model	St. Paul-Ramsey Medical Center	36	Salary	5,243
Nicollet-Eitel Health Plan (June 1973)	Group Model	Nicollet Clinic and Eitel Hospital	55	Capitation	26,688
Share Health Plan (June 1973)	Group Model	Samaritan Hospital and Physician Group	35[2]	Salary	37,486
HMO Minnesota (HMOM) (September 1974)	Network	Blue Cross and Blue Shield of Minnesota	1900	Capitation with Modified Fee-for-Service	62,872
Physicians Health Plan (July 1975)	IPA	Hennepin County Medical Assoc.	1700	Modified Fee-for-Service	97,073

[1] "Statistical Report on Health Maintenance Organization Operation in Minnesota, 1981." Minnesota Department of Health, Minneapolis, Minnesota.

[2] 35 physicians are SHARE employees. Another 40 work at associated clinics but are not SHARE employees.

Three of the Twin Cities HMOs have close ties to specific hospitals. The Nicollet-Eitel HMO is a joint development of Eitel Hospital and the Nicollet Clinic, a nearby multispecialty fee-for-service medical group practice. Initially, all Nicollet-Eitel inpatients were hospitalized at Eitel Hospital, but as the plan was marketed to a broader population group and enrollment increased, satellite clinics developed and the plan began using other hospitals as well. Coordinated Health Care (formerly Ramsey Health Plan) is closely aligned with the St. Paul-Ramsey Medical Center, a county hospital with close ties to the University. Their physicians are primarily St. Paul-Ramsey Medical Center (SPRMC) staff. Initially nearly all of the HMO's inpatients received care at SPRMC. During the past two years, however, the plan has expanded to include three offsite group practices and, consequently, they have begun to hospitalize patients in hospitals located near those practices. Share Health Plan, a group model HMO, was originally affiliated with Samaritan Hospital. It is now functioning independently of its founding hospital and uses other hospitals for its inpatient services.

MedCenter Health Plan, the largest group model HMO in the Twin Cities area, was developed by a highly respected multispecialty fee-for-service group practice. As the size of the plan grew, they decentralized and expanded to include several clinics all overseen by the original base clinic. The group practices associated with MedCenter were all in existence before becoming part of the MedCenter Health Plan. MedCenter acts as the resource allocator for physician services, designating a primary clinic site to each enrollee. While the MedCenter Plan uses a number of community hospitals, they have been able to concentrate most of their inpatient care in one institution located near the original multispecialty group practice.

HMO Minnesota (HMOM) is sponsored by Blue Cross and Blue Shield of Minnesota and operates as a network model. There are several primary care clinics affiliated with HMOs throughout the metropolitan region. Until recently they did not restrict choice of hospital. HMOM also provides services in several other areas of the State.

Physicians Health Plan is the only independent physician (IPA) plan in the Twin Cities. Approximately 1700 Minnesota physicians are now members of Physicians Health Plan. Initially the plan did not limit choice of hospital, but they now require physicians to obtain special permission to admit patients to some high cost institutions.

Hospital/HMO Contracts

Contractual agreements between hospitals and HMOs largely reflect the organizational structures, sponsorship, and bargaining power of the HMO plans. The highly centralized HMOs usually work with one main hospital while the decentralized IPA and network models use virtually every hospital in the community. Plans cosponsored by hospitals often receive favorable discount and risk-sharing agreements. Similarly, HMOs that are able to concentrate relatively large numbers of patients into one or two hospitals are able to gain more concessions. At the time of this study (1981), each of the HMOs reported having some type of contract with at least one hospital under which they received services on other than a full-billed charges basis. However, most also used a number of other hospitals for various services without benefit of any special agreements or discounts. Consequently, as late as 1980 less than half of the hospitals in the Minneapolis/St. Paul area had formal contracts with HMOs and most of the hospitals with contracts had arrangements with only one plan. Only four hospitals had contracts with more than one HMO. However, since that time the number of multiple contracts has increased dramatically, largely due to the expansion of the Physicians Health Plan hospital agreements.

Of the 27 contracts in effect at the time of this study, nearly one-half were developed between 1972 and 1979, and the remaining one-half were enacted during the past two years. Much of this recent growth has been due to Physicians Health Plan's initiative to negotiate contracts for hospital services. Since the IPA-type plans find it more difficult than other HMOs to direct patients to specific hospitals, they are developing contracts with as many hospitals in the service area as possible.

While the majority (75 percent) of the contracts cover a broad range of clinical services, some exclude inpatient chemical dependency and psychiatric services. Since the agreements are always limited by the range of services available in a given hospital, no-exclusion contracts often cover only primary and secondary care services. Consequently, HMOs frequently purchase tertiary care services from a number of hospitals on a full-billed charges basis without contracts. There is evidence, however, that the HMOs are beginning to develop contracts for tertiary care services and are concentrating those patients in one or two hospitals. Furthermore, while most of the original contracts for primary and secondary levels of care can be classified as rate-stabilizing to achieve predictability in the hospital rate component, the HMOs appear to be more aggressive in seeking substantial discounts for their high cost tertiary care patients.

The non-IPA hospital/HMO contracts reflect a wide range of reimbursement mechanisms. Under one set of contracts, hospitals bill their normal charges against a fixed amount which has been allocated on a capitation basis for hospital care by the HMO. Should this capitated amount be insufficient to cover hospital charges for care provided, the hospital, the associated medical group, and the HMO share in the deficit according to a predetermined formula. While full-billed reimbursement may be received by these hospitals for some (or all) of the HMO patients, this contractual agreement does not guarantee such. Rather, this type of contract places the hospital in a risk-shar-

ing position should hospital use exceed projected costs. At least one of these hospitals has protected itself against a potential loss above the capitated amount by purchasing stop loss insurance.

The three hospitals which co-sponsored the development of HMO's have contracts with those plans which include some aspect of financial risk. Each of these contracts has unique characteristics which do not lend themselves to easy summary or classification. Provisions found in one or more of these contracts include: capitation payments, billing full charges with a "hold-back" provision, space rental agreements, discounts on gross charges, year-end settlement with risk sharing and a *per diem* rate based on the hospitals' average *per diem* for all patients. In two of the three contracts, the hospitals share the risk for the overall successful operation of the HMO plan. This full risk sharing differs considerably from other Twin Cities contracts where the hospital is potentially at risk only for the hospital component of the plan. Without doubt, the contracts between HMOs and these closely linked hospitals are more extensive than other hospital/HMO contracts in terms of administrative interdependence, risk-sharing arrangements, and contracts for services.

Of the 27 hospital/HMO contracts, 19 stipulate hospital reimbursement on a predetermined *per diem* rate. Again, however, a number of individual characteristics distinguish each hospital's contract. Some hospitals are reimbursed on a *per diem* rate for most clinical services but exclude certain high cost services such as cardiac surgery and burn care which are billed at full charges for each individual patient. Other contracts provide for a *per diem* rate which decreases with the length of patient stay to reflect the high utilization of ancillary services associated with the first few days of a patient's hospital stay. One of the more unique contracts initially reimbursed the hospital on a predetermined *per diem* basis as long as that rate fell within a corridor of what actual patient charges would have been. If the *per diem* shifted outside the corridor boundaries, a risk sharing provision was triggered. Unfortunately, this contract proved too difficult to administer and was recently changed to a fixed *per diem* rate. Contracts with automatic adjustment of the *per diem* if HMO patient days increased by a specified targeted quantity and contracts with guarantees of minimum HMO dollar and patient day volumes also were described during the interviews.

Although all of the *per diem* types of contracts purportedly provided discounts for HMO patients and placed the hospitals at financial risk, in reality it doesn't appear that this always occurred. Some hospitals, regardless of the variety of provisions in their contracts, established a *per diem* which provided the HMO some amount of "discount." Others said they would tolerate no discount and would renegotiate the *per diem* if the HMO was not paying the average charge for its patients.

There were two hospital/HMO contracts in which the hospital billed the HMO its usual full charges less a percentage deduction in recognition that there were savings produced for the hospital by the contract. Elimination of bad debts and simplified billing procedures were noted specifically as the kinds of savings which were gained. These hospitals were able to sustain these discounts as cost-justified in their rate review processes.

Although most of the major Twin Cities hospitals had contracts with HMOs, over 50 percent of the HMO patients were concentrated in only two hospitals. There were only three hospitals where more than 10 percent of the patient discharges were attributable to HMOs. One of these hospitals risk-shared for the entire program, and during recent years they received 90 percent of their billings plus "up front" payment and no bad debts. The remaining two hospitals had contracts with the HMOs for *per diem* rates. The HMOs did not believe they were getting a discount over billed charges other than a small percentage based on cost reductions under these two contracts. One of these hospitals had no HMO contract until 1980 and at the time of this study provided a cost-justified discount of less than 5 percent. Therefore, it appears that the HMOs which account for the majority of the patient days in the metropolitan hospitals are actually only receiving small discounts from the hospitals where they concentrate the majority of their patients. Furthermore, the *per diem* cost in two of the three high HMO volume hospitals was slightly higher than the area's average hospital cost excluding high cost teaching institutions. These HMOs, therefore, appear to be paying as much or more than the average community rate for hospital services.

Initiation of Contracts

While many believe that HMOs create competition in the hospital sector by shopping for those services, this did not characterize the initial patterns of hospital/HMO contract development in the Minneapolis-St. Paul metropolitan area. The majority of the contracts developed between 1972 and 1979 were in fact initiated by hospitals. Initially the HMOs sponsored by group practices used the hospitals where the majority of their physicians had staff privileges. HMOs cosponsored by hospitals were, of course, aligned with those institutions. Recently, however, HMOs have taken the initiative in shopping for hospital services and more and more hospitals are responding to their overtures, apparently viewing the HMO population as a viable and desirable market.

Some believe that pressures of low occupancy rates and a beginning surplus of hospital beds caused the hospitals to initiate these contracts. The information gathered during this study indicates these circumstances as necessary but not sufficient conditions to precipitate hospital action. The occupancy rates of the hospitals that played the lead roles in developing HMO contracts were very similar to the other hospitals in the community.

Factors Influencing Contracts

Several factors apparently caused these hospital administrators to initiate contract discussions with the HMOs. Interviews with the administrators revealed that first of all they had always been innovators and viewed this as one more opportunity to be creative. Secondly, they believed that the HMO concept was sound and would expand, and they wanted to "get in on the ground floor." Several of the administrators also noted that they foresaw a continuous, if not increased surplus of beds in the future and wanted to prepare themselves for those circumstances. In the late 1970's the bed surplus continued and in fact increased, becoming a highly important factor influencing hospitals' willingness to enter into contracts with HMOs. Most of the administrators interviewed in this study agreed that excess hospital capacity is essential to the continuance of HMO contracts. This was especially the case for contracts providing a true discount. Hospitals with high occupancy rates and controls on expansion would have no reason to favor an HMO over fee-for-service patients. Administrators further noted that under those circumstances hospitals may in fact discriminate against HMOs by denying their physicians admitting privileges because of perceived higher severity of the HMO case-mix.

While few of the presently existing contracts included volume guarantees, there is evidence that HMOs concentrate their patients in the hospitals with which they have contracts. It is not clear, however, whether the patient flow resulted from the contracts or the contracts resulted from existing patient concentration. Clearly, some HMOs have been successful in shifting patients from one hospital to another when advantages could be obtained by doing so. Also, several of the HMOs, including the IPA model, have successfully limited their utilization of high cost hospitals to extreme cases. In these cases, special permission must be obtained from the plan before hospitalization. It appears, however, that to date only two HMOs have actually shifted major blocks of patients from one hospital to another, and although very important, price was not the single deciding factor in either case.

Although HMOs devote considerable attention to cost concerns, it doesn't appear that price is the major factor influencing their selection of hospitals. Three of the plans were initially cosponsored by hospitals and consequently used those institutions for their inpatient care. These hospitals provided a favorable economic environment because they shared the plan's financial risk but no competitive bidding took place for hospital services and until very recently, none of those plans considered a change in hospital affiliation. The plan that did recently break with its cofounding hospital did so because of major changes in ownership of the hospital. It initiated a bidding process among several hospitals for the new contract. The hospital that was finally selected was not the lowest bidder on price. However, they did offer what was termed "a favorable environment" and "reasonable prices." Apparently, the fact that the hospital was small enough for the HMO physicians to have an influence on the medical staff and yet large enough to provide a reasonable range of services in one relatively convenient location influenced the selection. Other HMOs that have entered into new contracts with hospitals during the past five years indicate similar motivations.

Hospital location, both in terms of convenience to the plan's physicians and current or potential enrollees, appears to be as important as price. Several of the plans noted the marketing advantages gained by an alliance with a strategically located hospital. The range of services provided by the hospital also ranked highly important. The inconvenience and loss of efficiency incurred by using several institutions to obtain the plan's inpatient services is a major concern to the HMOs. However, with the exception of the hospital cosponsored plans, the HMOs have not developed primary alliances with large metropolitan medical centers. Fear of total dominance by the medical staffs of those institutions, inability of the HMO to influence those large organizations in general, and the high cost of services were given by some of the HMOs as reasons for this posture.

While this pattern of hospital/HMO relationships holds true for primary and secondary care hospital services, tertiary care presents a different picture. The HMOs sometimes segregate their high cost tertiary care services as a package and initiate discussions with large medical centers for those services. Price and quality (mainly in terms of the reputation of the hospital) are the major factors forging these linkages. Price includes both the cost of hospital and physician services since many of the HMOs purchase these highly specialized physician services from outside the plan. Hospitals and selected members of their fee-for-service medical staffs are consequently forming alliances to bid on these contracts. Patients requiring these services are much less concerned over convenience and are much more amenable to being "directed" to distant and even inconvenient sources of care. HMOs cannot, therefore, be considered a unitary market from the hospitals' perspective. Rather, there appears to be two separate markets—one for primary and secondary care, and one for tertiary care. A third set of markets described by special services such as obstetrics is also evident.

Some Concluding Thoughts

The variety of hospital/HMO contracts described in this case study reflects several important characteristics of current hospital/HMO interaction. First, both hospitals and HMOs seem to be experimenting with the contractual mechanism. The resulting arrangements are highly individualistic, reflecting the organi-

zational characteristics, bargaining power, and market position of the parties. Second, hospital risk-taking in HMO contracts appears limited. Nearly two-thirds of the contracts provided no significant discount to the HMO and none were associated with any losses to the hospitals. Of those resulting in a discount, only three contracts were achieving savings of up to 20 percent of full-billed charges and those were for a limited range of specialty services. By far the most prevalent discount was in the 5 to 10 percent range, and this was often accompanied by "up front" payment for services on a quarterly basis or other cost justifying measures. Third, while initial discount and risk-sharing contracts between hospitals and HMOs sometimes were quite complex at the outset, they became simpler over time and moved toward a *per diem* type of reimbursement.

As HMOs have matured and grown, they clearly have become an important market segment perceived to be worthy of consideration by hospitals. In turn, with increased patient populations the HMOs have more bargaining power and are able to obtain favorable contracts from those hospitals. The HMOs also find it necessary to develop affiliations with more hospitals as their enrollments increase and become dispersed geographically. These forces have undoubtedly contributed to the increase in number of hospital/HMO contracts in the Minneapolis/St. Paul metropolitan area in recent years.

It should be noted that since the time of the interviews discussed in this paper, HMOs have become increasingly successful in obtaining discounted payment contracts with hospitals. One HMO recently reported that they are now contracting to pay hospitals on the basis of the average cost per case for all similar hospitals affiliated with their plan. This allegedly results in discounts of more than 50 percent for selected cases at some high cost hospitals.

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