Hospital Pricing: Cost Shifting and Competition

- The issue of cost shifting has taken on enormous policy implications. It is estimated that unsponsored and undercompensated hospital costs—one measure of cost shifting—has totaled $21.5 billion in 1991.

- The health services research literature indicates that hospitals set different prices for different payers. However, the empirical evidence on hospitals' ability to raise prices to one payer to make up for unsponsored care or lower payments by other payers is mixed at best. No study has concluded that hospitals have raised prices to fully adjust for such actions.

- The extent of cost shifting is limited by the market. When a hospital has market power, it is able to set prices above marginal costs. However, when a buyer has enough patient/subscribers and a willingness to direct them to particular providers based on price considerations, hospitals have less flexibility in raising prices above costs. Thus, the extent of cost shifting is limited by the market.

- Cost shifting is not as easy as it may have been in the past because the nature of hospital and insurer competition has changed radically in the last decade. While hospital quality, services, and amenities still matter, some buyers are increasingly concerned about the price they pay. Evidence from studies of PPO and HMO negotiations with hospitals suggests that hospitals' market power is eroding, at least in some areas.

- In areas with relatively few hospital competitors and little PPO or HMO activity, Medicaid and Medicare price reductions and uncompensated care burdens will be partially absorbed by higher prices paid by private payers. In more price sensitive markets and in markets in which prices to private payers have risen to those commensurate with the market power of local hospitals, such cost shifting will not occur.

- A market-based approach in hospital pricing requires an explicit policy for the uninsured. In a competitive market, a hospital that traditionally cared for the uninsured by spending some of its profits on them will be unable to do so, at least to the same extent as it did in the past. Increased competition in health care without consideration of the uninsured will decrease the uninsured's access to care.
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Hospital pricing is confusing. Hospitals have list prices but increasingly few payers actually pay these prices. Some payers receive discounts or have negotiated per diem or per admission payments. Others pay a fixed price based on the patient’s diagnosis. Still others pay “costs.” Some pay nothing. Many believe that they pay more for hospital care because others pay less. This Issue Brief discusses the nature of hospital pricing, focusing particularly on the issue of cost shifting.

Cost shifting, when used in the context of hospitals, generally has two meanings. It can mean that one or more groups of buyers pay higher prices than others, which this report calls “static cost shifting.” The other meaning is that one group pays more because another group pays less, which is referred to as “dynamic cost shifting.” In this latter context it is often argued, for example, that private purchasers pay higher hospital prices because government purchasers pay less than fully allocated costs.

The issue of cost shifting has taken on enormous policy implications. Lewin/ICF estimates that unsponsored and undercompensated hospital costs—one measure of cost shifting—totaled $21.5 billion in 1991 (Lewin/ICF, 1991). Burke and Brown argue that cost shifting has just begun; it will increase as Medicare phases in payment reform for physicians (Burke and Brown, 1990). A recent report by the Prospective Payment Assessment Commission suggests that errors in the Medicare hospital payment system are of little concern to hospitals because they can be adjusted by cost shifting (Prospective Payment Assessment Commission, 1992). Hospitals have used the cost-shifting argument to call for higher government payments (American Hospital Association, 1989). Cost-shifting arguments play a significant role in the health care reform debate. Proponents of expanded access to health care through employer-mandated insurance coverage and/or Medicaid expansion have used the cost-shifting argument to bring employers into the debate. They argue that a reduction in the number of uninsured will reduce hospital uncompensated care expenses and thereby reduce hospital prices faced by employers.

Others have argued that attempts to control costs by individual purchasers, even large governmental purchasers, are ultimately ineffective. A particular payer may obtain lower prices, but the costs of providing services to the payer’s enrollees is merely shifted to other payers. Overall spending is said to be unaffected. This line of reasoning leads to recommendations for all-payer
rate setting or global budgets that prevent cost shifting. It also implicitly eschews the use of competitive approaches to deal with health care cost inflation.

Nevertheless, the concept of hospital cost shifting is troubling. Taken literally it seems to imply that as long as a hospital has one patient (or group of patients) paying full fare, it cannot go out of business. Any losses are always recoverable from this payer. How is it that a hospital can raise prices to one group to provide free care to another group? Wouldn’t the group facing higher prices seek care from another provider?

A graduate business student faced with these questions in any other industry would offer two pieces of advice. To the seller, the student would say: “Profits are maximized when each payer group is charged all its

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1 In an all-payer system all payers (e.g., private payers, managed care entities, Medicare, Medicaid) pay a particular provider the same price for a particular type of service. Rates may vary by provider, but for any one provider, all payers must pay the same rates.

2 Global budgets is the concept of setting a national health budget, which is then allocated by sector of health care and geographic area. Under such a system, hospitals would be given fixed budgets out of which they would provide care for all patients.
traffic will bear. If one market cannot generate enough revenue to cover the costs of servicing it, then the seller should abandon that market. Failure to do so means profits are lost.” To the buyer who is paying the higher price the student would say: “Find another source of supply.”

This uneasiness prompts the general question of how hospitals price their services. Pricing is not primarily a question of accounting. Cost per unit plus a markup yields a price, but there is no guarantee that the price set will be sufficient to cover the costs incurred. Volume may be less than expected. Successful pricing depends on market conditions.

It is trite to say that where one stands on health care reform proposals depends on where one sits. Yet, where many employers and insurers sit on health care reform depends in many ways on what they believe about hospital cost shifting. If hospitals can offset price reductions by increasing prices to other payers, then expanded access and the imposition of price or budget controls can be appropriate strategies that reduce hospital prices. If hospitals are unable to successfully shift costs, then expanded access will not reduce costs to currently insured groups, and other approaches to cost containment may have merit.

This Issue Brief focuses on hospital pricing and its effects in the hospital marketplace. It begins with a discussion of the economics of the hospital market, leading to several conclusions. First, to successfully charge different prices to different groups, a hospital must have market power. Thus, static cost shifting is easy to establish, at least in principle. Second, a hospital cannot both maximize profits and engage in dynamic cost shifting. If one group, such as government purchasers, begins paying less, then the profit-maximizing hospital will seek to reduce its reliance on government patients by shifting capacity to its other buyers. However, the private buyers will only buy more at a lower price. Thus, dynamic cost shifting cannot occur. Prices to private payers actually fall. Third, to achieve dynamic cost shifting, the hospital must have market power that it has not exercised, and it must also “like” private payers in the sense that it is charging them less than profit maximization would allow. When the government lowers its purchase price in this case, a hospital responds by exercising some of its market power and raising the prices it charges to private payers closer to the profit-maximizing level. This suggests that the extent of dynamic cost-shifting is limited.

The following discussion examines the empirical evidence on hospital pricing and its effects in the market. First, it shows that different payers do indeed pay different prices; static cost shifting occurs. Second, it shows that price differences are not cost justified, or at least were not cost justified in the only study to rigorously address the question. Third, it reviews the empirical evidence on whether hospitals have successfully raised prices to one group of payers as a result of changes in the prices it charges others. The evidence on dynamic cost shifting is mixed.

The next section discusses the empirical literature on hospital price determination. The early evidence indicated that hospitals engage in service rather than price competition. More recent evidence finds significant price sensitivity on the part of preferred provider organizations (PPOs) and health maintenance organizations (HMOs), suggesting that market characteristics increasingly limit hospital pricing decisions.

Finally, the report summarizes these findings and analyzes their implications for health system reform. Three implications seem warranted. First, an increase in the number of the uninsured will have differential effects across local health care markets. Communities with many hospitals and active PPOs and HMOs will experience little dynamic cost shifting. In
other communities cost shifting is more likely. Second, expanding coverage for the uninsured or raising the prices paid by Medicaid or Medicare will not reduce the prices paid by private payers in more price competitive markets. Third, even in less competitive markets, the costs of uncompensated care loads and reductions in government payment levels cannot be fully offset by charging private payers higher prices. It will be increasingly difficult for hospitals to successfully shift such costs.

Economics allows two alternatives for the analysis of firms: either a firm has some degree of market power or it does not. Market power exists when a firm is able to raise its price without losing all of its sales. Hospitals are generally regarded as having such power. Indeed, this may seem self-evident. However, it is key to understanding hospital pricing. The relevant issue is how many patients a hospital will lose if it raises its prices. The well-known RAND health insurance experiment estimated that hospital care was rather unresponsive to price. A 10 percent increase in the out-of-pocket price paid by a patient decreased the number of hospital days used per year by 1.4 percent (Manning et al., 1987). However, that study examined hospital care in aggregate. It did not consider patient flows from one hospital to another as a result of price changes. A recent study (discussed below) suggests that, among some HMO payers at least, a 10 percent increase in hospital prices resulted in a 30 percent reduction in admissions at those hospitals (Feldman et al., 1990). Hospitals have the ability to set prices without losing all of their patients, at least within a broad range. However, all payers are not equally insensitive to price.

Margin-Maximizing Hospitals

The simplest model is that of a margin or profit-maximizing hospital with market power. This hospital would seek to charge the price that generates the most net revenue. Suppose two groups of patients have the same costs of treatment but different price sensitivities. Group A lives closer to other hospitals, for example, or has to pay more out-of-pocket for care. Group B is the less responsive payer. As long as the hospital can keep the buyers from reselling the medical services, the hospital can profitably charge different prices to each group. It charges a lower price to the more price sensitive Group A because this group has better substitutes for care at this hospital. In the economist’s lexicon, this is price discrimination. We will call it static cost shifting, although costs are not the issue. By construction, the two groups of patients have the same costs of treatment.

Suppose Group A is able to negotiate a still lower price for itself. If the hospital does not grant a further price reduction, this group will obtain care from another hospital. Could the hospital grant that price cut and make it up by raising prices to Group B? Not if it has been maximizing profits. If the hospital could make more profit by charging higher prices to Group B, then it was not profit maximizing in the first place. Thus, raising prices to Group B now must lower profits.

In fact, the economics require that if the hospital is obliged to grant a lower price to Group A, it will provide fewer hospital days to this group. The hospital will try to move that capacity over to Group B. However, the only way to get Group B to take more days is to lower the price charged to it. Thus, Group B receives a lower price! No dynamic cost-shifting here. If Medicare were to introduce the prospective payment system (PPS) in this model and thereby lower the price it pays for hospital care, Medicare admissions would decline and private payers would pay less.

3 For a more rigorous discussion of the conceptual issues associated with a profit-maximizing hospital, see Foster (1985) and Hay (1983).
Hospitals with Other Goals

Suppose a hospital does not maximize profits. Rather than valuing profits (or profits exclusively) the hospital values care for the poor, patient volume, research, teaching, the provision of high cost low volume services such as burn care as well as, perhaps, amenities for the physicians, staff, and/or administrators. This is the more common approach to considering hospital behavior.

A hospital taking this approach must still have market power if it is to charge different prices to different groups. Without market power any hospital finds that attempts to raise prices result in all of its patients departing for other providers. Static cost shifting always requires market power.

Suppose that the hospital values the provision of charity care exclusively. How is it to maximize charity care? The answer is to charge each paying group as much as the market will allow and to use the profits to pay for care for the poor. This is exactly the same solution as that used by the margin-maximizing hospital. The only difference is that the economic profits are used to care for the poor rather than to care for the shareholders. To use a common hospital phrase: “No margin, no mission.”

Dynamic cost shifting does not occur in this context either. The same economic logic leads a hospital to reduce its volume to payer Group A (that negotiates a lower price) and increase its volume to payer Group B. But, again, Group B will buy more hospital services only at a lower price.

The only way to achieve dynamic cost shifting is to give the hospital market power, have it maximize something other than profits (exclusively), and require that it “like” paying patients. It must like these patients in the sense that it has chosen not to set prices as high as its market power would allow. Suppose it values both charity care and Group B patients. It engages in price discrimination (i.e., static cost shifting), charging different prices to each group. Now Group A negotiates a price reduction. The hospital finds it can no longer be as generous to either its charity or Group B patients. It reduces its charity load and raises the price to Group B patients. Dynamic cost shifting occurs. Notice that dynamic cost shifting is not complete. In general, all of the favored groups take a hit; charity care is reduced and prices charged to private payers rise.

Dynamic cost shifting can occur only when a hospital has market power that it has not exercised. Granting a price reduction to one payer forces the hospital to act more like a margin-maximizing facility, raising its prices toward the profit-maximizing level. This also implies that a hospital can only use dynamic cost shifting to a limited extent. Once profit-maximizing price levels are obtained, no further cost shifting is possible.

The theory of cost shifting has two important implications. First, cost shifting requires market power on the part of hospitals. Second, dynamic cost shifting requires that hospitals have unexplored market power and are currently charging private payers less than the market would allow.

This section examines the empirical evidence on three questions: (1) Do hospitals charge different prices to different payers? (2) Are these differences justified by cost? (3) Do prices charged to one group of payers rise when prices charged to others fall?

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4 For a rigorous development of this model, see Dranove (1988).
Do Hospitals Charge Different Prices to Different Payers?

The answer is yes; static cost shifting occurs. However, the evidence is not quite as conclusive as one would like. Three types of data are usually presented: the amount of uncompensated care, the extent of discounts, and the differences in markups across payers.

American Hospital Association data suggest that in 1990 hospitals provided $9.6 billion in uncompensated care (Prospective Payment Assessment Commission, 1992). This suggests that some patients paid prices approaching zero while others paid higher prices.5

Evidence on hospital discounts comes from both sides of the market. Hospitals report the extent of contractual adjustments and other discounts. These discounts have been reported as representing a reduction of almost $18 billion from billed charges in 1982 (Sloan et al., 1986). HMOs and PPOs report discounts they receive from hospitals. For example, 80 percent of PPOs responding to a recent survey reported obtaining hospital discounts, 58 percent negotiated per diems, 15 percent used a diagnosis-related group (DRG) based system6 (Marion Merrell Dow, 1991). Presumably, other payers paid different and generally higher prices, although the survey does not address the question.7

Finally, there are data on the markup paid by different payers. These estimates are usually developed by calculating the amount actually paid to hospitals by a payer group divided by the average cost of treating all patients. This method also has some problems in that it assumes that costs are equal across all payers at all times. If marginal costs are systematically lower for some categories of payers, then true markups may not actually be different. Table 1 presents the average revenue per patient day and the average markup by payer source. If the presumption about private discounts negotiated by HMOs and PPOs, among others, is true, the markup data suggest that the difference in prices between some government programs and some private payers is even greater than that reported here.

Table 1

<table>
<thead>
<tr>
<th>Payment per Patient Day, 1990</th>
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<tr>
<td>Payment Cost Ratio</td>
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<tr>
<td>---------------------</td>
</tr>
<tr>
<td>Uncompensated Care</td>
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<tr>
<td>Medicaid</td>
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<td>Medicare</td>
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<td>Other Government</td>
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<td>Private Payers</td>
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5 Average markup by payer source.

Are the Price Differences Justified by Cost?

The crude evidence of price differences is meaningful only if it does not represent differences in the costs of treating patients. If Medicare patients are less costly to treat, for example, finding that they pay a commensurably lower price is no evidence of price discrimination, i.e., no evidence of static cost shifting.

The evidence on cost differences is surprisingly sparse. Sloan and Becker (1984) provide the only rigorous published analysis. They used 1979 data on approximately 1,400 larger nonprofit hospitals. Control-

5 The measure is a little cloudy for two reasons: First, uncompensated care includes both bad debt and charity. Bad debt reflects bills that were not paid in whole or in part. The hospital expected to be paid, presumably at conventional levels, but was not. This is not an attempt to set different prices. One can ask, of course, how seriously the hospital expected to get paid. Second, a relatively small portion of charity care reflects the payment of Hill-Burton obligations. (In return for federal construction funds provided through the Hill-Burton program between 1948 and 1973, hospitals have been required to provide specific amounts of charity care. This care is not free care per se; rather it is effectively an interest payment.)

6 Totals equal more than 100 percent because many PPOs report multiple payment systems.

7 Care must be taken when interpreting discount data. The problem is the assumption that some payers actually pay charges. This was once true but is less so today. Sloan, Valvona, and Muller (1986) reported that, even as long ago as 1979, Medicare discounts from charges averaged 19.8 percent, Medicaid 10.6 percent, Blue Cross 10.6 percent, and commercial insurers 5.2 percent.
ling for other factors, they found that Medicare and Medicaid patients had higher costs per admission. However, this was due to longer lengths of stay and these patients’ more complex case mix. There was no meaningful difference in costs per day across payer types when case mix and other factors were controlled for.

These data are 14 years old. Since that time Medicare has changed its payment system, providing incentives to reduce length of stay, increasing the cost per day, and reducing hospital admission rates. The case complexity of Medicare patients who are admitted has increased (Sloan et al. 1988 a, 1988c). Private payers have actively engaged in utilization review techniques, some undoubtedly more effective than others. It is quite possible that the relative costs across payer groups has changed rather dramatically. However, based on existing empirical work, it must be tentatively concluded that differences in prices per day are not justified by cost.

Does Dynamic Cost Shifting Occur?

The more important policy question is the presence of dynamic cost shifting. We know different payers pay different prices. What happens when there are more uninsured patients? Will hospitals raise their prices to private payers? If Medicare reduces its payment rates to hospitals, will private payers pay more? If Medicaid were to expand eligibility, would private prices fall? If employers were forced to provide health insurance for all of their workers, would hospital prices decline because hospitals would no longer have to provide as much uncompensated care?

The empirical evidence is mixed but tends to support the conclusion that dynamic cost shifting either does not occur or is limited in scope. Thus, there is some reason to believe that the prices paid by current purchasers are unlikely to be much lower as a result of these sorts of reforms.

Case Examples

The strongest evidence supporting dynamic cost shifting is that of Dranove (1988). He examines the price response of 79 Illinois nonprofit hospitals to a reduction in Medicaid payment levels during the 1981–1983 period. He measured the change in price paid by private payers as inpatient revenues received from all sources other than Medicare and Medicaid divided by the number of admissions from these sources. He then calculated the change in hospital accounting profit derived from government payers. Evidence of dynamic cost shifting exists if a decline in hospital profits from government sources leads to an increase in the price paid by private payers. In alternative statistical models Dranove found that a $1,000 decrease in government revenues raised the average hospital price paid by private payers by $0.15 to $0.51. Given that the Medicaid cuts in Illinois totaled $1.88 million, this implies a price increase of between $201 and $282 per private admission. The dynamic cost shifting identified here does not result in increases in prices paid by private payers that fully adjust for the loss from Medicaid. Dranove’s analysis suggests that approximately one-half of the government payment reduction was “made up” with higher private payments. However, one of the limitations of Dranove’s analysis is that he may not have adequately controlled for competition in the hospital and insurance markets.

The earliest statistical study of dynamic cost shifting is that of Adamache and Sloan (1983), who used

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8 Government profit is measured as government inpatient revenues minus costs. Because costs are not available by payer source, Dranove measured these as total expenses per admission times the government share of admissions.
1979 data from a special survey of hospitals to examine the relative discount Blue Cross received from hospitals. They calculated the fraction of billed charges paid by Blue Cross and by commercial insurers. The relative discount was defined as one minus the ratio of the Blue Cross fraction to commercial fraction. Thus, if Blue Cross paid 85 percent of charges and commercials paid 100 percent, the relative discount would be 15 percent. The actual relative Blue Cross discount in 1979 was 4.1 percent. After estimating a system of equations, Adamache and Sloan concluded that a 1 percent increase in its market share allowed Blue Cross to increase its relative discount by 1.8 percent.

Sloan and Becker (1984) re-examined these data focusing on cost per day and accounting profits. The cost results indicated that the Blue Cross discount had no effect on hospital costs either per day or per admission. However, discounts did reduce hospital profits. This offers indirect evidence of dynamic cost shifting because profits did not decline enough to fully offset the Blue Cross discounts. The inference is that prices to commercial payers rose but not enough to fully offset the discounts.

Hadley and Feder (1985) addressed the issue of dynamic cost shifting by looking at data from 128 hospitals that responded to two national hospital surveys over the period 1980 through 1982. They sought to identify those hospitals with a “need to cost shift” and then to examine whether those with the greater need were able to raise prices to private payers. Need was based on the hospital’s bad debt and charity care; the difference between the estimated costs and revenues for inpatient care for Medicare, Medicaid, and Blue Cross patients; and the difference between nonpatient care expenses and revenues. Prices to private payers were measured as inpatient revenue received per private patient day. In simple comparisons they found that the half of the sample with the greater need to engage in dynamic cost shifting would have had to raise prices by more than 37 percent to cover the increase in need over the period. In fact, these hospitals only raised commercial payer prices by less than 1 percent. In contrast, the half of the sample with the lesser need to cost shift should have reduced commercial prices by nearly 14 percent. Instead, they increased prices by nearly 2.3 percent. Clearly, this evidence does not support the dynamic cost-shifting theory.

The Hadley-Feder analysis suffers because it did not control for other factors that may have been occurring in the hospitals’ markets. Zuckerman (1987) re-examined their data with more sophisticated statistical techniques, that controlled for hospital and market characteristics. Like Hadley and Feder, Zuckerman found only a trivial price increase resulting from the need to cost shift. He also considered alternative ways to categorize hospitals according to their need to cost shift: high, moderate, low, and no need. He found that those with a low need had commercial markups that were 11.3 percentage points above those with no need. Those with a moderate need had markups 17.4 percentage points higher. Those with the greatest need had markups no greater than those with no need. It is important to put these results in context. The low need hospitals would have had to raise prices by more than 40 percent to completely meet their need; they only raised prices to private payers by 11.3 percent.

Zuckerman went a step further and asked whether the ability to dynamically cost shift...
depended on the market power that may be held by commercial insurers. He found that the commercial insurers' share of a hospital's patients affected the relationship between "need to cost shift" and actual price increases. When a hospital had an average share of commercial payers, the variable for the need to cost shift had no effect on commercial prices. Prices rose only when the commercial payers were a small share of the hospital's patient base. This relationship is displayed in chart 1. For a hospital with a small share of revenue from commercial payers—for instance, 5 percent—as the need to cost shift increased, the prices charged rose. As the importance of commercial payers increased, the need to cost shift became increasingly irrelevant. When a hospital received 25 percent or more of its revenue from commercial insurers, there was no effect of need on prices.

Morrisey and Sloan (1989) examined the effects of the Medicare PPS phase-in on hospital prices to private payers over the period 1980 through 1987. Their argument is that, as PPS was implemented, some hospitals found that their Medicare payments were reduced, while others found their payment levels increased. The conventional dynamic cost shifting theory implies that the former hospitals would seek to raise prices to private payers while the latter would lower them. Morrisey and Sloan created a PPS “bite” index reflecting the Medicare share of hospital admissions, Medicare payment relative to costs, and the phase-in of PPS. They found that, as a result of PPS, inflation-adjusted private hospital prices fell by a cumulative 7.0 percent over the four years of the phase-in. Hospitals with higher Medicaid and "self-pay" shares were no more likely to raise prices than other hospitals. This finding is consistent with profit-maximizing behavior but certainly does not reflect dynamic cost shifting.

However, Morrisey and Sloan also argued that hospitals in more competitive markets should be less able to cost shift. They attempted to test this theory by splitting the sample into rural and urban hospitals. They found that metropolitan hospitals raised their prices to private payers by 18.1 percent during the phase-in, while rural hospitals reduced their prices to these payers by more than 14 percent. These results suggest some problem in their empirical model. Under either model of hospital behavior, the more competitive markets should have had a smaller price effect (in either direction) than less competitive markets.

Finally, Scheffler et al. (1988) examined the effects of PPS on Blue Cross utilization and expenditures from 1980 to 1986. This study presented a more all-encompassing look at the effects of PPS on hospitals. It examined the effects of PPS on Blue Cross payments per 1,000 subscribers, utilization, and payments per admission based on quarterly claims data from 61 of the 62 Blue Cross plans. While only the last relationship relates to the dynamic cost-shifting question directly, the utilization and total expenditure linkages are also of interest. Suppose PPS did result in increases in the prices paid by private insurers; this occurrence would obviously suggest conventional cost shifting. However, suppose PPS also changed physician practice patterns, leading to fewer admissions and lower levels of service. If these changed practice patterns spill over to the non-Medicare patients, private expenditures might decline as a result of PPS even as prices rise. This is what the Scheffler study found.

In their statistical analysis, price, utilization, and expenditures depended on PPS, Blue Cross plan features, Blue Cross market share, physician and hospital supply, income, employment, and sociodemographic variables as well as state regulatory and Blue Cross programmatic factors. PPS was measured as the proportion of Medicare days for the most common Medicare DRG. The effect of PPS on Blue Cross inflation-adjusted payments per admission was positive. A 10 percent increase in the PPS percentage of Medicare days resulted in a 0.1 percent increase in price, that is, $31 per admission. It also led to a 0.3 percent reduction in Blue Cross admissions and a 0.1 percent reduction in inflation-adjusted inpatient expenditures per 1,000
subscribers. This translated into $506.8 million in savings for Blue Cross in 1986 as a result of PPS.

The authors did not attribute the Blue Cross price increase to cost shifting. Rather, they argued that it was a consequence of the PPS-induced increase in length of stay for Blue Cross patients, which resulted from an increase in Blue Cross case mix complexity. In short, they found that PPS had at most a very minor effect on prices and, overall, a large effect in reducing Blue Cross expenditures.

Overall then, the current state of empirical research presents a mixed picture of dynamic cost shifting. No studies have indicated that hospitals have been able to fully offset price reductions for uncompensated care or payment reductions by government programs. The studies most supportive of dynamic cost shifting—those of Dranove (1988) and Sloan and Becker (1984)—suggest that about 50 percent to 90 percent of such price reductions are shifted to private payers. On the other hand, work by Zuckerman (1987), and Scheffler et al. (1988) suggest that such cost shifting is very small. Zuckerman concluded that cost-shifting was only a factor in hospitals where private payers represented a very small share of hospital admissions.

The findings discussed in the previous section suggest that the presence or absence of dynamic cost shifting depends on the nature of hospital and insurance competition. Recent empirical work indicates that the nature of these markets—at least some markets—has changed dramatically over time.

It is generally well known that, because of the presence of widespread health insurance in the United States, patients have been shielded from concern over price. They (and their physicians) are thought to select hospitals based on the availability of services and amenities. Robinson and Luft (1985) provided strong evidence of this proclivity. Using data from 1982, they identified the number of hospitals within a 15-mile radius of each hospital in the country. Then, controlling for hospital and population characteristics, case mix and wage rates, they estimated the effect of the number of potential competitors on the average cost per admission at each hospital. They found that hospitals with no nearby competitors had an average cost per admission of $2,268. The average costs rose with the number of competitors. Those with 11 or more nearby hospitals had average costs of $2,859, more than $590 dollars higher than those with fewer hospitals nearby. This situation has been interpreted as competition based upon services and amenities and characterized as the medical arms race.

The Impact of PPOs and Selective Contracting

More recent work in California tells a similar story about the role of competing hospitals, but the effects are very different because of differences in financing arrangements. Zwanziger and Melnick (1988) examined the effects of the growth of PPOs and the use of selective contracting for hospital services from 1983 to 1985 by the California Medicaid program.9 They divided communities into those with many hospitals and those with few. The results are summarized in chart 2. In the 1980–1982 period, before the advent of selective contracting and PPOs, hospital expenses per admission increased at an annualized rate of 6.6 percent in communities with many hospitals. They increased by only 5.9 percent in low competi-

9 Zwanziger and Melnick (1988) present a more sophisticated discussion of their findings.
tion areas. This is consistent with the Robinson and Luft analysis.

However, after the introduction of PPOs and selective contracting, hospital expenses actually declined by 0.7 percent in the high competition areas. These results suggest that buyers who are willing and able to select from a limited set of hospitals are able to negotiate price reductions. Zwanziger and Melnick’s cost data only suggest this; they say nothing about actual transaction prices.

Staten et al. (1988) examined the price bids by hospitals seeking to be included in a newly formed Blue Cross PPO in Indiana and examined the effects of hospital competition and insurer market share on the offered discount rate. They measured the hospital market alternatively as the number of hospitals in the county or whether the hospital was the only one in the county. They characterized the insurance market, alternatively, as Blue Cross’ share of the hospital’s volume or as the Blue Cross share of the private insurance market. They found that hospitals in counties with more competitors offered greater discounts, and hospitals in counties with only one hospital offered smaller discounts. Various Blue Cross market shares had no impact on the discounts offered.10

Feldman et al. (1990) suggest that HMOs have also been able to negotiate with hospitals on the basis of price. They examined the choice and use of hospitals by six HMOs in four metropolitan areas. They found that HMOs appeared to choose hospitals based on measures of quality and that hospital average costs were not an important factor. However, once a set of hospitals had been selected, price became important. For staff-network type HMOs, a 10 percent increase in the price negotiated with a hospital led to a 30 percent reduction in the use of that hospital. (Use was measured as admissions.) For HMOs organized as independent practitioner associations, a 10 percent price increase was associated with a 10 percent reduction in the use of that hospital.

These results and those of the cost-shifting literature suggest a role for competition in hospital pricing. On the one hand, when a hospital has market power it is able to set prices above marginal costs. On the other hand, when a buyer has enough patient/subscribers and a willingness to direct them to particular providers based on price considerations, hospitals have less flexibility in raising prices above costs. Thus, the extent of cost shifting is limited by the market.

This speculation is supported by recent work by Melnick et al. (1992), who examined the prices that the Blue Cross PPO of California negotiated with the 190 hospitals in its statewide network. The study focused on the extent to which hospitals faced local hospital competitors for patients, the share of Blue Cross business held by the hospitals, and the share of hospital business held by the Blue Cross PPO in the market. Their model implies that when a hospital faces more competition, the PPO will be able to negotiate a lower price. Furthermore, when the PPO has a larger share of a hospital’s business in a more competitive hospital market, the price is still lower. However, when a hospital has a relatively large share of the Blue Cross PPO admissions in the market area, it has some countervailing power. Apparently in

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10 Melnick et al. (1992) suggest that one reason for the lack of Blue Cross market share effect is that Staten et al. only had access to hospitals’ initial bids. Their experience with California PPO data suggests that negotiations often went several rounds.
these instances the PPO fears that it will lose subscribers if it does not come to terms with the hospital. The hospital then has some negotiating leverage and gets a higher price.

This scenario is precisely what Melnick et al. found. Based on their analysis of 1987 data, a reduction in the number of equal-sized hospital competitors from three to two in the market would lead to a 9 percent increase in the negotiated PPO price. When the PPO’s share of the hospital’s admissions was smaller, in areas with fewer hospitals, the PPO paid higher prices. When the hospital had a greater share of the PPO market in an area, the PPO paid still higher rates. Furthermore, the extent of excess capacity in the hospital market mattered. High occupancy rates in the hospital or high occupancy rates in the market area had no impact on price. However, when PPOs negotiated with high occupancy hospitals in high occupancy markets, prices were higher.

Melnick et al. included the share of hospital days attributed to Medicaid at each hospital. A 1 percent increase in the Medicaid share increased the hospital’s price to the Blue Cross PPO by 2 percent. This increase suggests the presence of cost shifting, but as the authors note, it may also reflect prior pressure from California Medicaid to restrict costs (through the use of selective contracting). If so, these hospitals would have been unable to make larger price cuts based on new methods of improving efficiency. The Medicare share had no impact on PPO prices.

Hospital Price Negotiations

Finally, more aggregate measures of hospital prices are becoming increasingly misleading, because of hospitals’ willingness to negotiate with insurers over price. The hospital services index of the Consumer Price Index (CPI) has routinely collected and reported the rate of increase in hospital billed charges. Recently, however, Dranove et al. (1991) have compared the CPI measure using billed charges from hospitals in California with an index based on the transaction prices actually received by hospitals. The results are summarized in chart 3. From 1984 to 1988 billed charges increased at an annualized rate of 11.1 percent. Transaction prices increased at an annual rate of 7.0 percent. Overall, the rate of increase in billed charges was more than twice that of transaction prices. Hospitals appear to be engaging in the form of sticker pricing common among auto dealers, using the list price only as a starting point for negotiation. The U.S. Bureau of Labor Statistics has announced that in 1993 it will begin reporting a revised hospital price index based on more realistic transaction prices.

This is not to suggest that the California experience, or the experience in Feldman’s four HMO cities, are typical. They almost certainly are not. However, they suggest that the nature of hospital pricing is a local matter. It depends on the extent of potential hospital competition in the market and the willingness and ability of insurers, particularly HMOs and PPOs, to direct patients to hospitals that will negotiate prices.

The health services research literature indicates that hospitals do set different prices for different payers. However, the empirical evidence on hospitals’ ability to raise prices to one payer to make up for unsponsored care or lower payments by other payers is mixed at
Evidence from studies of PPO and HMO negotiations with hospitals suggests that hospitals’ market power is eroding, at least in some areas. As a consequence, cost shifting is not as easy as it may have been in the past.

The nature of hospital and insurer competition has changed radically in the last decade. While hospital quality, services, and amenities still matter, some buyers are increasingly concerned about the price they pay. Evidence from studies of PPO and HMO negotiations with hospitals suggests that hospitals’ market power is eroding, at least in some areas. As a consequence, cost shifting is not as easy as it may have been in the past.

The empirical literature on hospital cost shifting offers several insights concerning public policy. First, it suggests that increased Medicaid and Medicare price reductions or an increased burden of the uninsured will have different effects paid by private payers. (Although even here the theory suggests that a history of successful cost shifting will limit a hospitals’ future ability to do so. Prices will be closer to their profit-maximizing levels.) In more price sensitive markets and in markets in which prices to private payers have risen to those commensurate with the market power of local hospitals, such cost shifting will not occur. Instead, expect to see hospitals dropping out of the Medicaid and/or Medicare markets and becoming unwilling to continue to provide care to the uninsured. Indeed, work by Sloan et al. (1988b) indicates that, even as the number of uninsured was expanding in the mid-1980s, most community hospitals were not expanding the share of admissions they were providing to uninsured patients. Instead, the uninsured share of the traditional providers of this care—the large urban teaching hospitals—was the only one expanding. One interpretation is that community hospitals were less and less able to shift costs to private payers.

Second, the data do not support a view that the expansion of insurance coverage to the uninsured will result in a significant reduction in hospital prices paid by private insurers. Even the studies that are most supportive of dynamic cost shifting indicate that prices will not fall by an amount equivalent to the cost of care provided to the newly insured. The other studies suggest that there will be virtually no reduction in hospital prices to private payers. It is again more likely that the effect of such coverage expansion will vary from community to community.

All of these considerations suggest that a reform proposal that expands or mandates employer-sponsored health insurance or expands Medicaid will have very different effects on firms already providing health insurance. If the bulk of
their operations are located in communities with active hospital and insurance competition, hospital prices will not decline. Indeed, a case can be made that expanded access will increase the demand for local hospital and physician services and will bid up the prices that providers receive.

Employers in other communities may find that hospitals lower their prices (or raise them more slowly) as a result of expanded access. New money from these programs will pay for the care of the formerly uninsured. However, here too, if access is greatly expanded, then the demand for services will also increase. This increase will partially offset—or potentially swamp—the savings that may occur from reduced cost shifting.

Third, if concern about the different levels of prices paid by various payers is a consideration, two courses of action would seem appropriate. An attempt could be made to directly regulate hospital prices, requiring all payers to pay the same price. This would either bring private payers down to the government level or raise government prices to the private levels. Something in between could probably be expected. Regulation implies larger government budgets and would preclude negotiation for lower prices by some private payers. In this scenario dynamic cost shifting would occur, not because of actions by hospitals in the market but as a direct consequence of government price setting.

The Zuckerman study discussed earlier also considered the effects of all-payer rate setting for hospitals. He concluded that rate setting was an effective vehicle to reduce hospital costs but that it was not necessary for all payers to be covered. His data, and those of others, suggest that rate setting imposed by one major player may result in lower costs across the board. This should come as no surprise if hospitals are indeed unable to cost shift. Rate setting may be appropriate where there is little hope for market forces to be successful.

A better approach may be to encourage more health care price competition. On the buyer side, this implies the development and encouragement of groups that (1) have sufficiently large numbers of subscribers and (2) are willing to direct these subscribers to lower priced, acceptable quality providers. Increased reliance on PPOs and HMOs is a move in this direction, if these organizations are willing and able to give subscribers incentives or otherwise channel them to lower cost providers. Employer coalitions are also a move in this direction if the organizations have a sufficient number of employees and if they channel employees to appropriate providers based on price. Selective contracting arrangements for Medicaid and Medicare offer similar vehicles for using health sector competition to control prices. The evidence from California suggests that channeling Medicaid patients to hospitals that submit lower bids does slow the increase in health care costs. However, care must be taken that the new organizational forms include incentives for price shopping. The so-called Medicaid managed care demonstrations may have managed care, but they certainly did not save any money.

On the supply side, reliance on the market suggests that states worry less about certificate-of-need laws and duplication of services. If buyers are to effectively negotiate on the basis of price, there have to be alternative suppliers of services, and providers that fail the market test must be allowed to close. States could enhance market potential by explicitly allowing insurers to negotiate prices with selected providers. Price competition is not encouraged by legislation that requires a PPO to accept any pharmacy into its preferred set of providers, for example, as long as the pharmacy agrees to the same price schedule. A pharmacy will offer a low price for assured volume. If the volume assurance is lost, it cannot be assured of achieving economies of scale and it cannot offer as low a price.

A market-based approach requires an explicit policy for the uninsured. In a competitive market, a hospital that traditionally cared for the

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uninsured by spending some of its profits on them, will be unable to continue to do so, at least to the same extent as it did in the past. People will disagree about universal mandates, tax credits, employer mandates, Medicaid expansions, or any of a number of other alternatives. However, it is obvious that increased competition in health care without consideration of the uninsured will decrease the uninsured's access to care.

Dynamic cost shifting may have existed in the past, but it appears to be increasingly irrelevant to the future. Employers and insurers will be better served by considering what it is that prevents them from negotiating over price. The relevant question is: Others get price breaks, why don't you?


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