

Hospitals and the Role of Nonprofit Firms

Up to this point we have focused primarily on the demand side of the industry: The demand for health, the role of uncertainty and how it gives rise to the market for insurance, the problems that insurance markets create and the role of the government and markets in resolving these problems (managed care and health savings accounts are a market response to the moral hazard problem in healthcare, the prospective payment system in Medicaid is a regulatory response to the same problem, The emergence of Medicaid and Medicare is a regulatory response to market failure).

I want to continue our discussion of the role of market and government in shaping the healthcare industry by now turning to the supply side of the industry. In this section we will discuss hospitals and the role of not-for-profit firms in the industry.

I. Introduction

Economic Definition of a Firm

A firm can be thought of as a collection of contracts. Some of these contracts are with suppliers of inputs, others with suppliers of financial capital, and still others with purchasers of the firm's products. Conceptually the appropriate decision as to ownership rights should be based on that combination that minimizes transactions costs between the firm and its various contractors.

Health care is no different from any other industry in this sense, with one exception: the nature of product purchasers

1. Consumers are often not as well informed about their purchasers as are the suppliers

2. Consumers typically pay much less than marginal cost for health care services with parties other than direct consumers footing the rest of the bill.
3. Health care is a good that many feel is “deserved by all”. That is, we are unwilling to confront the rationing problem.

A little background

Community Hospital - the dominant type of hospital in the US - “all nonfederal short-term general and other special hospitals, whose services are available to the public, currently there are around 5,000 hospitals in the US. This number declined fairly substantially in the late 1990s as there was a large merger and consolidation movement over that period.

Of these hospitals about 60% are private not-for-profit, 27% are public and 14% are for profit.

There is also a growing trend for “joint venturing” where a private not-for-profit and a private for-profit will together operate a facility. Also a growing trend is joint venturing between hospitals and physician group practices (more on these to follow).

The original purpose of the hospital was to provide shelter to the poor and dying - many sponsored by religious orders. Medicine had not yet evolved to the point where there was much to do in a hospital so mostly it was a place to die for those who could not afford to die at home.

Over the period 1870 to 1910 hospitals moved from the periphery to the center of medical education and practice - hospital were the workshops of doctors.

Hill-Burton Act of 1946 designed to expand rural health facilities by providing for matching grants to NONPROFIT institutions. - major factor in accounting for the rise in per-capita hospital beds between 1947 and 1970. This helped in the non-profit model being dominant in the industry.

Organizationally the US system is quite different from those in other countries. In the US the hospital board and the medical board are two separate entities - physicians gain access to

hospitals without becoming employees. European hospitals, in contrast, are generally staffed by full-time, salaried medical specialists who receive patients referred by office based doctors.

Advantages of the US system:

1. Unpredictable environment of treating illness - this system gives the doctor more control.
2. Monitoring doctors is easier than monitoring hospitals. Can track a doctor's record

Disadvantages:

1. Complicated
2. Cost control is difficult.

As a result expenditures per day and per stay are considerably lower in other countries than in the US.

For example:

Country	cost/day	cost/stay
Canada	\$357	\$5,176
France	218	2,777
Germany	154	2,546
United Kingdom	202	2,546
US	839	7,961

The US has fewer beds/1000 population, lower average admission rate, shorter length of stay and lower occupancy rate. .

II. Not for profit Hospitals

The for-profit hospital is in the minority numerically in all developed countries. In the US about 60 percent of nonfederal community hospitals are not-for profit, about 26 percent are run by state or local governments, and the remaining 14 percent are for-profit. The percentage of for-profit in other countries is generally as low as in the US, but the mix of public vs. private not-for-profit varies considerably. If measured in beds, the percentage of for-profits is even lower. Although there are pockets where for-profits are dominant: San Antonio is now 70 percent for profit!

1. Legal distinctions

The main difference between for-profit and private not-for-profit lies in the distribution of accounting profit. Not-for-profits do not distribute such profit to individual equity holders but rather in the form of a dividend to its sponsors or to whomever it designates. In principle, the community, however this is to be defined, is the equity holder.

Incorporation laws do not preclude private not-for-profits organizations from paying economic rents to employees, managers, or others who may exercise control over them (such as physicians).

Private not-for-profits enjoy some government-conferred advantages, including exemption from corporate income and property taxes, somewhat better access to tax exempt bond financing, and eligibility for private donations. – However, donations to hospitals have eroded as all private hospitals and even some public hospitals have changed from largely charitable institutions to large commercial enterprises. Further, the corporate tax advantage has decreased, and for-profit hospitals have access to tax exempt bonds in the form of industrial revenue bonds. These advantages now amount to no more than 3 percent of revenue. For-profit hospitals have a substantial advantage in being able to raise equity capital through sale of stock.

Charters of private not-for-profit organizations generally contain clauses severely limiting or expressly forbidding explicit incentive compensation plans that managers have in the for-profit sector. Since there is no stock, there is no

possibility of offering stock options to managers and key employees in private not-for-profit organizations. Thus, not-for-profit firms may be at a disadvantage in their ability to line up the incentives of the manager and the firm (a principal-agent problem). Note that reputation effects among managers may be able to overcome any disincentive problems that arise.

2. Why is the not-for-profit form dominant?

a. **Contract Failure**

One explanation deals with the idea of contract failure. The nonprofit sector has a useful role in cases of a particular type of contract failure. This occurs when the quantity or quality of output is not easily observable by the purchaser. The asymmetry of information between the firm and the buyer of services becomes important in explaining the nonprofit role.

To see the idea behind it: Suppose that you are motivated to contribute food and clothing to suffering people in Ethiopia. You can find a firm to deliver the care; however, it would be prohibitively costly to verify that the firm actually is delivering the desired goods to the designated population. Under these circumstances, you may prefer to employ a nonprofit firm. As a deliverer of the aid packages, a for-profit firm will be perceived to have a conflict of interest. Such a firm could increase profits by renegeing on its promise. A non-profit may have less incentive to renege.

Because not-for-profit firms are not pure profit-seekers they would not fully exploit their market power over a patient who experienced a major health

shock. The argument here is that private not-for-profit hospital dominates because of lower costs of contracting with consumers.

Note that while this argument may hold some water, it does not explain why the private not-for-profit form would be dominant for some but not all types of health care providers. Many types of services, such as nursing homes and physicians' offices, are predominantly for-profit enterprises. Nursing home care does not generally involve complex technology, but given the physical and mental condition of most patients, the potential for exploitation exists. Physicians refer patients to hospitals. If the need for trust applies to hospitals, it applies with greater force to physicians.

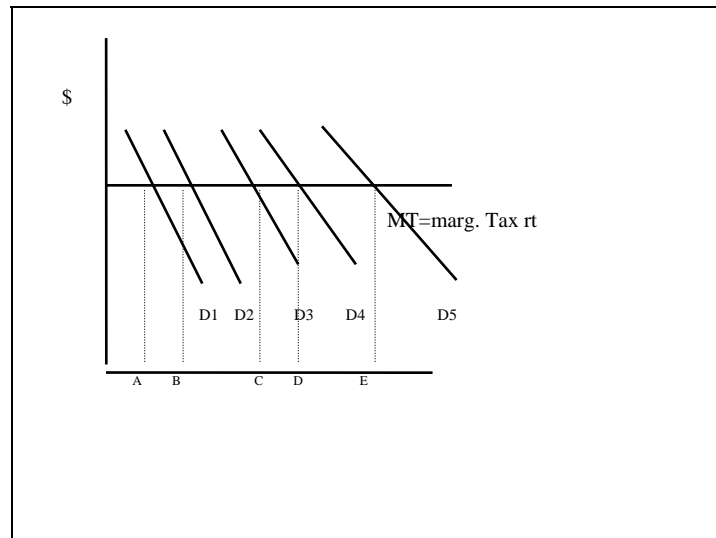
b. Public Goods

Public goods have two characteristics: 1) nonrivalness in consumption in the sense that consumption by person A does not affect consumption by person B; and 2) nonexcludability in the sense that individuals who do not pay cannot be excluded from consuming the good or service.

Police protection is an example, or a music CD. In health care most of the goods or services are private goods (they are rival and excludable), but there may be some components of care that are public goods. Such care includes:

- services to the uninsured
- excess capacity such as in the emergency room
- various patient educational and social services
- care for particular diagnostic groups such as AIDS patients or drug addicts
- teaching and research.

if I give money to a shelter for abused women, for example, the benefits I receive are the good feeling in knowing that a recipient is provided for. But these benefits are enjoyed by not only me but anyone who is concerned for these people. So charitable donations are tough for the market to provide.



But they are also hard for the government to provide.

D1 through D5 represent the demand curves of five different voting individuals for a public good to be provided by the government. The demand curves represent the external benefits to these different groups of taxpayers. So they represent the marginal benefits to the taxpayer donors.

Assume that to pay for this good the five individuals are taxed equally at a rate of MT . Thus if the government wanted to provide output C then each of the tax payers would be charged $c \cdot MT$ in tax etc. What output will the government choose? A democratic government will tend to favor the median voter. In this case it is demander 3. By catering to the needs of the middle, he gets the most votes. Consider two candidates one who proposes output A one who proposes output C . Who will win the election?

Thus note that the government's chosen level of output only satisfies the median person, demanders 1 and 2 think it is too large and demanders 4 and 5 think it is too little. In a more

complicated tax system, by charging those who value the good more than those who value it less, it is possible to please everyone. But just like perfect price discrimination is difficult for firms to practice, this is also difficult for government to accomplish.

So in this example demanders 4 and 5 think there should be more done, and thus have the incentive to do something. These are the founders of nonprofit corporations. CHRISTUS Santa Rosa Hospital here in town was started for these reasons.

Note that health care provided to the indigent is not a public good - it is rival and you could exclude nonpayers, but the public good nature is the external benefit of knowing that the poor are being taken care of.

Note also that the externality is not just for taking care of the poor, but having a high quality hospital may enhance a community's sense of pride and well-being.

c. Cartel Theory

The first two explanations show nonprofits as a response to market failures. This next one views nonprofits as a form of market failure. Here it is argued that not-for-profit hospitals are dominant because this is in the doctors' collective interest.

In the US, most physicians who treat patients in hospitals are not employees of these organizations. Yet through their power to admit, they potentially exercise an important influence over hospitals. If this theory holds, hospitals are operated in the interest of a physician cartel.

This rationale has some appeal for not-for-profits under local control, but is less applicable to major teaching hospitals and hospital systems. For teaching hospitals, decision-making is shared among the physicians, their departments, the medical school, and the parent university. Local members of for-profit chains report to the home office, which in turn bears responsibility conferred upon it by the firms' owners. Opposition to the growth of the latter on the part of physicians may reflect potential loss in the ability to cartelize when the hospital is owned by a for profit chain.

d. Inertia

Because private not-for-profit organizations, including hospitals with this ownership form, have no well-defined owners, transaction converting such firms to other forms require consent of the firms' managers, who may have a personal stake in opposing such conversions. For this reason, the forces of market selection operate slowly, and the form remains dominant long after the rationale for the form has disappeared.

Which Rational is best?

It appears that none of the proposed theories for the dominance of non-profits (there are others not mentioned here) fit perfectly. Yet for the US there is something to most of the arguments.

3. Objective of Not-For-Profit Hospitals

The above discussion dealt with *why* nonprofits are dominant. We now turn to *what* nonprofits do differently than for-profits. Given that, by definition, these hospitals have no residual claimant, what is the objective of a NFP hospital?

Ideally, a NFP would make input and output decisions to maximize the welfare of the community subject to the constraints it faces. It is unclear, however, if this is what happens. How do you define “welfare of the community”? This is a very mushy concept.

Essentially there are four potential hospital stakeholders: hospital-based physicians, hospital employees, owners (perhaps the community, or charitable organization), and nonphysician administrators. Each stakeholder has distinct and sometimes conflicting objectives

There have been many attempts by economist to model the objective of NFP hospitals. These models include

a. Profit Maximizing Model of hospital behavior

- the hospital acts just like a profit maximizer, but simply returns these profits to the public (or to its employees) - public interest view

Downward sloping demand curve implies some price setting power, The idea is that the hospital behaves just like a profit maximizer, but takes those profits and uses them to

provide care for the poor, lower prices in general, or some other use that is in the public's best interest.

With free entry these profits would be bid away, but:

tax advantages of NFPs,

If all else equal this model predicts NFPs should drive FPs out of business in LR

b. Utility maximizing model of hospital behavior

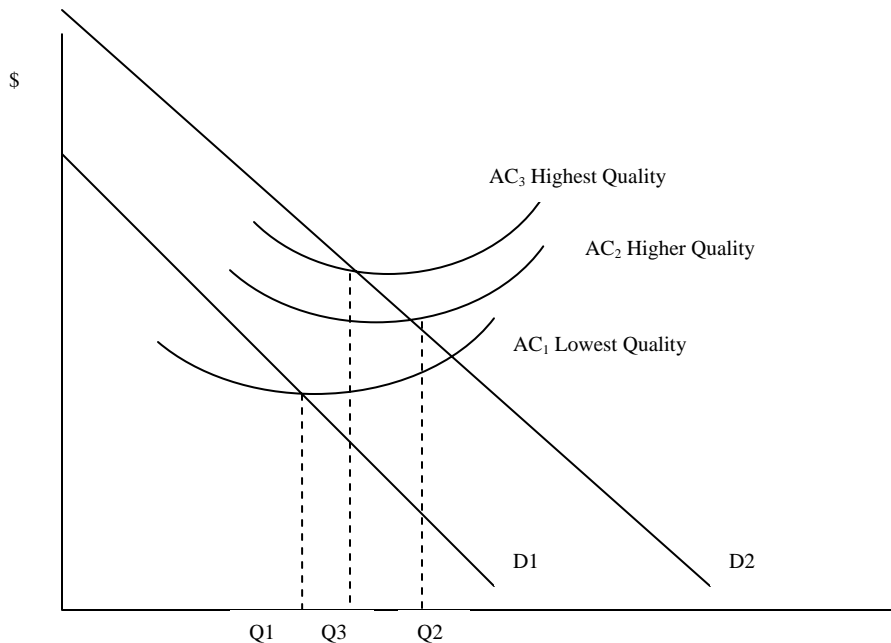
managers and trustees of the hospital are the beneficiaries of NFPs and act in a way to maximize their own utility

Administrator gains utility from, say, the quality and size of the hospital and thus attempt to maximize some combination of quality and quantity

the decision maker has a utility function that includes the quality and size of the institution (note could also include "slack") the prestige of the facility is important to the administrator

- type of services offered
- quality of medical staff and specialists
- caliber of labor inputs

The idea is that the firm attempt to maximize profits in the SR, but uses those profits to invest in quantity and quality an increase in quality implies an increase in cost and (at least for a time) an increase in demand



As firm invests in quality the demand for the service presumably will increase (i.e. move from average cost 1 to AC 2 gives an increase in demand from D1 to D2, but note that additional quality is not valued by consumers, so that when move from AC2 to AC3 there is not a corresponding increase in demand.

Generally we think of increases in quality as being demand driven (so that a for profit market would never go to AC3) but here quality is increasing because it increases the utility of the administrator -- not the profit. Thus from an efficiency standpoint there is too much quality

Note this model requires:

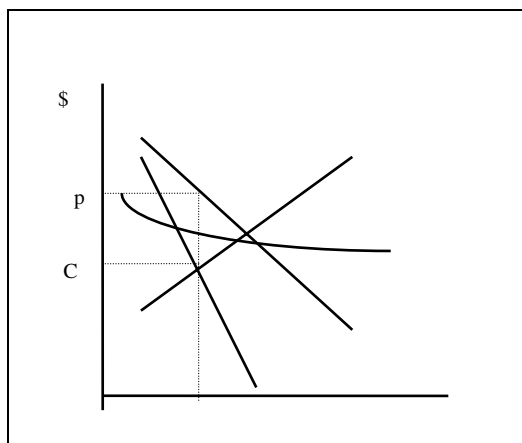
1. Barriers to entry - to keep out lower cost competitors
 2. Or elastic demand wrt quality
1. This model explains why hospitals would make unprofitable investment decisions
 2. Explains why NFPs would resist entry of FPs - since FPs would not have this prestige motivation and thus would drive NFPs out of the market
 3. Explain excessive duplication

But note that the role of the physician and the insurer is not really taken into account.

c. Physician Control model of hospital behavior

- The physician acts as residual claimant - the medical staff control the hospital

Assuming the patient cares only about the total price of care (physician plus hospital charges), then the physicians has an incentive to keep the hospital charge low and his charge high.



If this is the output of the hospital, all the hospital needs to break even is C, thus for a given level of out put the physician can “capture”(P-C) for himself. Thus by controlling the hospital’s behavior the physician is able

to increase his profits. This model does a pretty good job of explaining investment behavior of hospitals. If the demand for medical care increased, the physicians would prefer this demand to be met through an increase in hospital capacity, not an increase in the number of physicians. An increase in the capacity of the hospital will increase the marginal productivity of the physician, and thus the earnings of the physicians. Note that there is a role for the AMA here to act to restrict entry and provide and enforcement mechanism on the cartel.

Why would physicians prefer NFPs, to direct ownership?

1. Avoid taxes
2. No risk involved in original capital outlay.

Recently the rise in HMOs and DRG and an increase supply of physicians has put increasing pressure on hospitals to minimize costs of production. Thus a growing trend is for the physician to go to direct ownership.

NFPs are under a great deal of pressure to act more efficiently HMOs pushing them toward efficiency - concern for quality of care for indigent

Coordination of the cartel depends on a small group with a common interest - is this true for physicians?

In the end it comes down to an empirical question, comparing for-profits to not-for-profits.

4. How do private NFP differ from for-profit hospitals?

Costs

Costs may vary for many reasons:

- Competitive advantages conferred by governments
- Community benefits, teaching, and/or research
- Slack – inefficient activity that may increase the utility of workers
- Quality
- Casemix severity

To the extent that the residual claimant is not well defined, economists would expect that private NFP and public hospitals would be less efficient (where efficiency is measured in terms of costs).

Overall, the empirical evidence demonstrates few systematic differences in efficiency between for-profit and not-for-profit hospitals. Results vary somewhat depending on how you measure costs (accounting costs vs. economic costs which include a return on equity, what other factors are

controlled for, etc.) but for the most part little difference between for-profit and not-for-profit are found.

Cost shifting

The notion that hospitals increase price to private payers when the government reduces the price it pays is widely accepted. Conditions for cost shifting to occur are 1) the hospital has market power in its product market and 2) such power was not fully exploited before the government reduced the price it paid hospitals. That is, the hospital did not set price at the profit-maximizing price before the government decreased price.

The intuition is that hospitals raise the price toward the profit-maximizing price to make up for the shortfall caused by the fall in the price paid for hospital care by government. One would expect nonprofit maximizing behavior from private NFPs but not for-profit hospitals.

There are tons of studies looking at this. A study by David Dranove found that a one-dollar decrease in hospital profits from government sources per private admission led to a fifty one cent increase in price per private admission. About half of the revenue loss was recovered.

More recent data, after Medicare Prospective Payment System was enacted and managed care became important tends to find less evidence of cost shifting among either for-profits or not-for-profits.

But either way, most studies do not find much difference in this behavior between NFP and FP hospitals.

See below for more on cost shifting.

Uncompensated Care

Most evidence here suggests that there is not a big difference between the two types of private hospitals: NFP uncompensated care is about 4.5 percent of revenue, for-profit uncompensated care is about 4 percent. Public hospitals provide a greater portion of uncompensated care than the other two. When you add tax revenue paid by for-profits, it is even more “equal”.

Quality of Care

While quality is difficult to measure, the evidence here is fairly mixed and seems to indicate there is not a big difference in quality between NFP and FP hospitals.

Entry and Exit

If not-for-profits derive utility from greater quantity, then they will behave as if they have lower effective costs than for-profits. This would explain why NFPs appear to be less responsive to fluctuations in demand than for-profits. And suggest that NFP will also be quicker to enter in response to demand growth and less likely to exit in demand reductions.

Bottom Line:

Overall, one is struck by the similarity between private not-for-profit and for-profit performance – except in areas, such as capital structure where there must be differences for institutional reasons.

As for the differences between public and private hospitals: public hospitals clearly have a different orientation – in treating a much higher proportion of patients without insurance. Also evidence suggests that quality

is lower in public hospitals. Assuming that the quality studies are accurately measuring quality these are troubling to the extent that one expects single-tier care.

Given the way most economists define efficiency, for -profits appear to perform about as well as private NFP. However, for goods like medical education and research there may be a clear difference. These are public goods that are not likely to be produced by for-profit institutions (unless, of course, there are dedicated subsidies for these activities).

See WSJ: Nonprofit Hospitals Flex Pricing Power

III. More on cost shifting:

1. theory of cost shifting

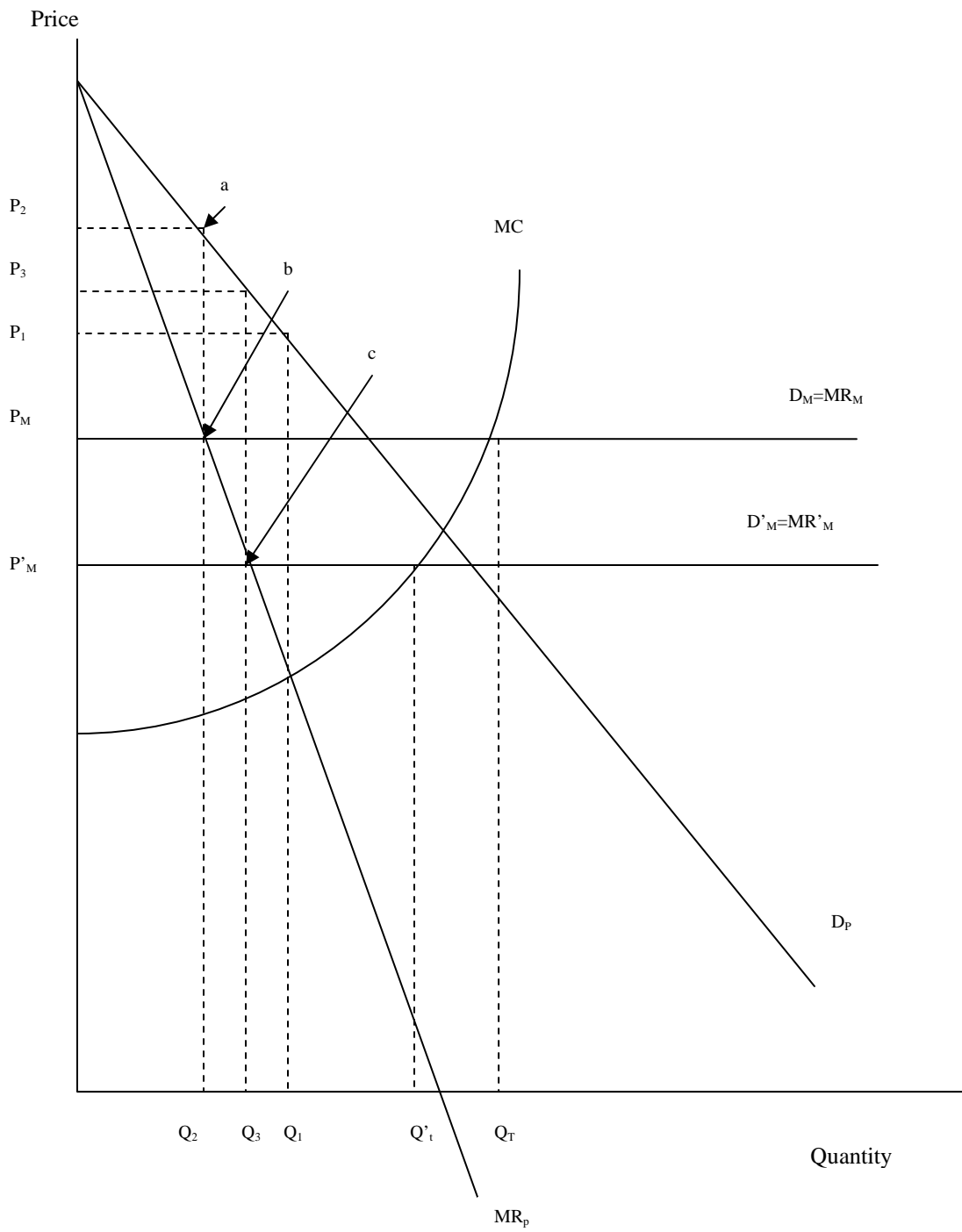
How do hospitals afford to provide free care to the uninsured, or care for Medicare/Medicaid patients at substantial discounts?

Consider the relationship between Medicare and private payers. Do Medicare patients simply receive a discount, or are private patients paying higher prices to subsidize care for the elderly?

In the diagram below consider the following demand and cost schedule facing a hospital with some degree of market power. If the hospital only served private patients, it would have a demand curve of D_P and marginal revenue curve MR_P .

Assuming profit maximization the firm would set $MR=MC$ and provide Q_1 services at a price of P_1 .

Now if the hospital decided to see Medicare patients, it is obliged to accept the approved DRG rate for the service (prospective payment). Typically, this is a price lower than the private price, say P_m , which represents demand curve D_M – it is horizontal since it get constant revenue for each patient.



Now the hospital's new total demand curve equal to D_p down to point a, dropping down to D_M thereafter. Also the new marginal revenue curve is MR_p to point b then becoming MR_M . So profit is maximized where $MR=MC$ providing Q_T services. The hospital sees Q_2 private patients and charges them a higher price ($P_2 > P_1$). The $(Q_T - Q_2)$ Medicare patients will be provided medical care at a price equal to P_M . Note that at point b the hospital stops seeing private patients since the marginal revenue of private patients is less than that for public patients.

Now suppose Medicare lowers its payment rates to hospitals. In the diagram above the Medicare price falls to P'_M and the Medicare demand and marginal revenue curves fall as well. The hospital's new marginal revenue curve is now MR_p down to point c and MR_M thereafter. Now more private patients are seen (Q_3) and the price they pay is lower (P_3) (but still greater than P_1). Likewise fewer Medicare patients are served.

Thus this analysis suggests that the government payment mechanism has a big impact on the amount private patients pay for hospital services. In general private sector prices are higher due to Medicare. However, when Medicare lowers the rates paid to hospitals for treating the elderly, there is a downward pressure on prices paid by everyone else.

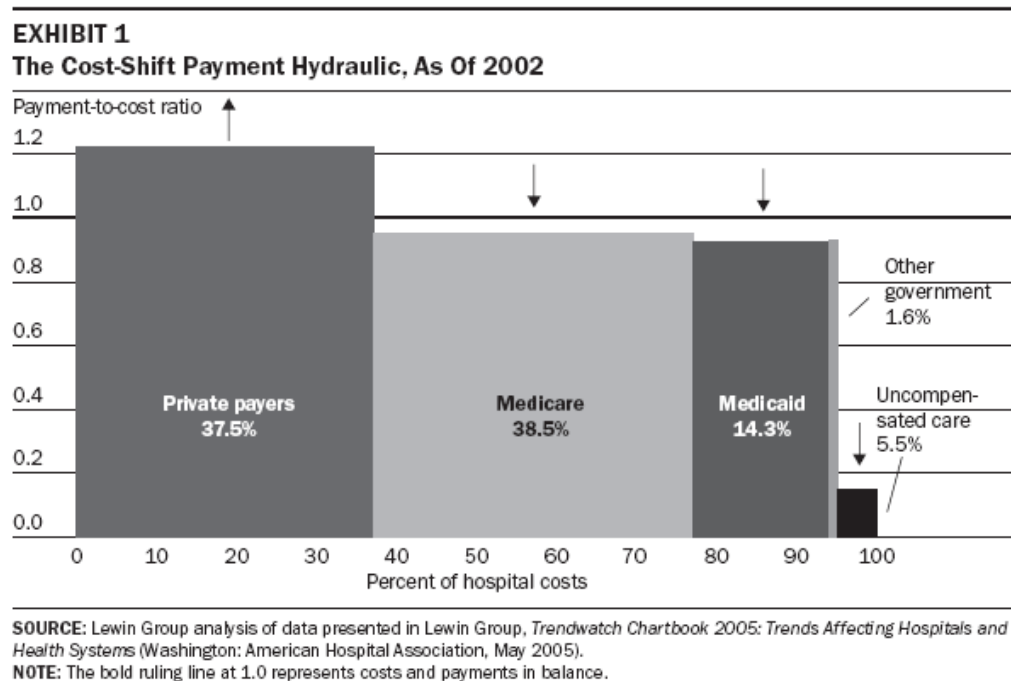
- if significant excess capacity and constant marginal costs then the hospital will treat each as a separate market and the two would not affect each other.
- Note two that when Medicare lowers its reimbursement hospital profits are decreased. There is incentive for them to increase

bargaining power against private insurers. So one thing that could happen is that lower Medicare reimbursement could result in hospital mergers or consolidations. This would shift out the demand curve facing the new hospital and allow higher prices. This is what you might expect if hospitals are already operating at or near zero profits.

- Also this assumes that hospitals are acting as profit maximizers.

2. Evidence of cost shifting

The following graphs are taken from a study in the January/February 2007 edition of Health Affairs by Allen Dobson, Joan DaVanzo, and Namrata Sen of the Lewin Group.



This first graph shows the payment to cost ratio by payor for hospitals in 2002.

Note that one of the tough things to measure here is the appropriate cost. These costs are taken from what hospitals' definitions of Medicare, Medicaid and Private payers' costs as reported through the American Hospital Association Annual Survey. So do they really represent the "true cost" of treatment? That is tough to measure.

But assuming costs are measured accurately, then this is evidence of cost shifting. So Medicare made up 38.5% of costs in 2002, but hospitals were reimbursed at about 95% of costs. Thus Medicare reduced total hospital margins by 1.93 percentage points ($.385 * [(1 - .95) * 100] = 1.93$).

Medicaid leaves about 8 percent of costs uncovered (even after accounting for DSH).

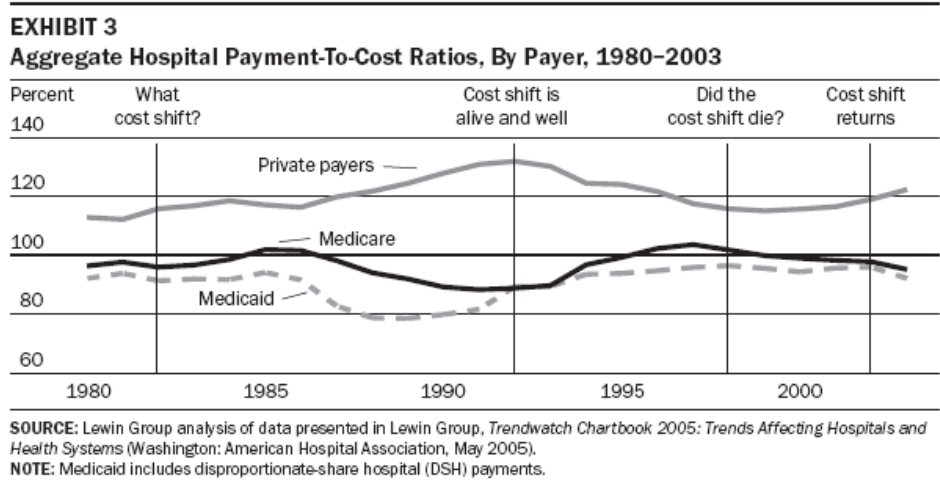
On the other hand, private payers pay about 1.22 more than costs. Thus, this suggests a pretty strong cost-shift "hydraulic".

Note that to the extent that this is really costs shifting (and not just accounting differences in measuring costs), then this suggests that hospitals have enough market power over private insurers to be able to do this. That or private insurers and consumers are willing to pay above normal prices so the hospital can cover its costs.

These are aggregate numbers and so they probably mask individual trends within DRGs.

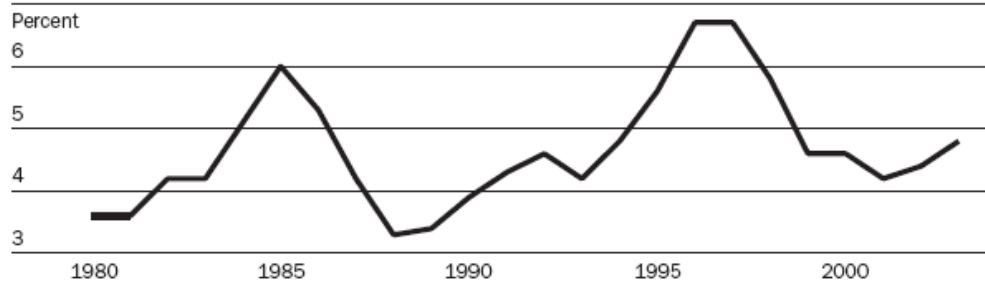
The next figure shows the payment to cost ratio over the 1980 to 2003 period. Note that prior to 1985 or so (pre PPS) private payments were about 1.10 times costs and

Medicare was close to 1.00. There was not much need for shifting. Once the PPS became binding though, note the Medicare ratio (and Medicaid) decreased, while the private ratio increased. This suggests hospitals were able to deal with losses in the public market through increased leverage in the private market. But note once we get past the mid 1990s the private ratio falls. Managed care came on strong and pushed against hospitals. Medicare payments, however were increasing. But note that most recent years, the cost shift appears to be becoming more important.



In the end, then the aggregate total margin for hospitals over the 1980 to 2003 period ranged between 4 and 6 percent for the most part.

EXHIBIT 4
Aggregate Total Margins For U.S. Hospitals, 1980-2003



SOURCE: Lewin Group analysis of data presented in Lewin Group, *Trendwatch Chartbook 2005: Trends Affecting Hospitals and Health Systems* (Washington: American Hospital Association, May 2005).

NOTE: Total hospital margin is calculated as the difference between total net revenue and total expenses divided by total net revenue.

IV. Hospital Competition and Specialty Hospitals

1. Hospital Competition

Typically, the more firms in the industry the closer to the productively and allocatively efficient outcome. Competition drives the firms to act efficiently - the right combination of goods and services using the least cost methods of production.

However, a popular opinion in health care markets is that this is not the case in hospitals - some studies show that as the number of hospitals increase, the cost of producing the good as well as the price of the good increases. What can explain this?

Consumer-Driven Competition Regardless of the ultimate objective and behavior of a hospital, they need patients. In the presence of an inelastic demand, and third-party payers without much power, hospitals will not be too successful in competing for patients through price. Thus they may compete in non-price ways. If physicians value quality and hospitals attract business by attracting the best physicians, then hospitals may race to achieve the highest **RELATIVE** quality.

Consider a simple scenario:

hospitals compete in two markets, the market is a duopoly

1) basic med/surg

2) heart transplants

suppose there is a fixed level of demand for (1) - only so many appendectomies per year.

If a hospital provides a unique level of services it receives a relative quality boost

		Hospital 2	
		Basic	Both
Hospital 1	Basic	7,000 7,000	20,000 3,000
	Both	3,000 20,000	4,000 4,000

Note that both would be better off if they did not produce in the specialty market if neither specialized, they would have equal perceived quality and would split the market evenly, but given that one hospital is not going to specialize, the other has an incentive to specialize and get the relative boost. But, both have this incentive so they both would specialize. This leads to an over-specialization in the market.

Note that even under the assumption of profit maximization, we get the result of over-investment in hospital services - there are too many heart transplant units in this case.

Under NFPs, depending on the assumption, the problem is made even worse.

What happens if we move to a three good case: heart transplants and neonatal icu

		Hospital 2			
		{1,0,0}	{1,1,0}	{1,0,1}	{1,1,1}
Hospital 2	{1,0,0}	7,000 / 7,000	3,000 / 20,000	3,000 / 20,000	1,000 / 35,000
	{1,1,0}	3,000 / 20,000	4,000 / 4,000	17,000 / 17,000	19,000 / -500
	{1,0,1}	3,000 / 20,000	17,000 / 17,000	4,000 / 4,000	19,000 / -500
	{1,1,1}	1,000 / 35,000	-500 / 19,000	-500 / 19,000	1,000 / 1,000

notice this does not change things much, again each hospital has an incentive to be the unique provider of the specialty service, yet each has an incentive to overinvest. The welfare maximizing outcome would be for them to split the markets up, but given the agreement each has an incentive to cheat, thus the only NE is for both of them to provide both specialty services. Note that if this is the way the world looks, more hospitals is bad for the economy.

Remember collusion is more difficult, the more firms are in the game, thus as firms enter, the collusive agreement (splitting up the market) is less likely. So more hospitals lead to more duplication and therefore higher costs and prices. Each hospital is racing to achieve the highest relative quality, and as a result there is an escalation of quality that is not driven by demand.

Role of the insurer

Note that this is dependent on the inelasticity of demand - so competing on price wont work. As insurance companies gain strength they would like to stop this from happening. As the laws were changed allowing insurers to negotiate with hospitals directly, they became more price sensitive, so they were less able to push off the costs of this excessive investment onto consumers. There is a cost to this type of competition now.

For example California has passed such laws allowing HMOs to bargain with hospitals, prior to the change in law rate of inflation in hospital markets was higher the more hospitals were in the market, after the change, price increases were significantly less than in less competitive markets. Changing of the guard in how hospitals behave.

This is known as the *Medical Arms Race*.

The implication here is that competition is a bad thing since it tends to result in excess investment in technology and other equipment as well as prices and costs. Thus policy makers have argued that policies that discourage competition may be “good” for the industry:

- Certificate of Need
- Merger Policy

Payer-Driven Competition – as managed care and other insurance companies gained market power and laws were changed, insurance companies obtained the ability to selectively contract with hospitals. This resulted in price again becoming an important variable. Under this scenario hospitals are now able to compete in prices.

Studies have looked at hospital markets prior to the rise of managed care (the mid 1980s) and found that as the hospital market becomes more competitive (more hospitals in an area) prices and costs tend to increase suggesting that competition is bad. But these same studies then look at the market after the rise of managed care (the mid 1990s) and found the opposite – more competition leads to lower prices and costs. This result suggests that competition is good for efficiency.

A few years ago, the conclusion among health economists was that, while at one point in time non-price competition among hospitals may have lead to some inefficiencies, once managed care came along the medical arms race died. Hospitals now compete in prices and, therefore, competition is good in hospitals just like it is in all other industries.

Note, however, that as managed care declines, non-price competition among hospitals may again become an important phenomenon.

2. Specialty Hospitals: A new medical arms race?

Issues with Specialty Hospitals:

- Medicare Reimbursement
- Cherry Picking (or Adverse Selection)
- Physician Ownership and Conflict of Interest (Supplier-Induced Demand?)
- Differences in Quality
- Preferences of Patients – patients may prefer specialty hospital due to its convenience, and better outcomes.
- Increased competition can improve efficiency or could result in medical arms race