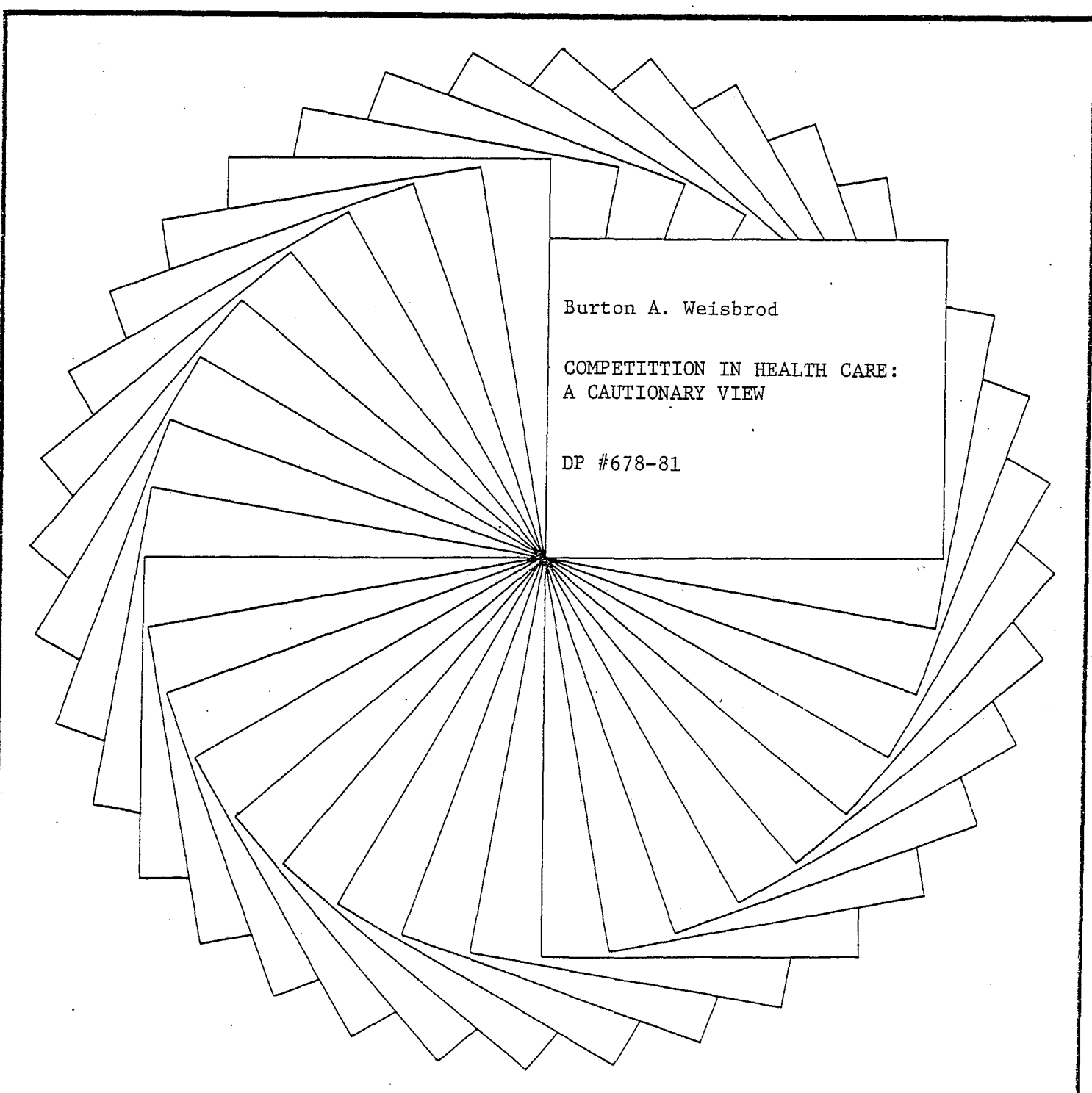




# Institute for Research on Poverty

## Discussion Papers



Burton A. Weisbrod

COMPETITION IN HEALTH CARE:  
A CAUTIONARY VIEW

DP #678-81

COMPETITION IN HEALTH CARE: A CAUTIONARY VIEW

Burton A. Weisbrod

Department of Economics and  
Institute for Research on Poverty,  
University of Wisconsin-Madison

Revised version of a lecture presented at the 23rd George Bugbee  
Symposium on Hospital Affairs, University of Chicago, June 1981.  
I would like to thank Elaine Gilby, Mark Schlesinger, and Barbara  
Wolfe for helpful comments.

## ABSTRACT

The health care industry is not unique, but it is unusual in three important dimensions: (1) the limited information available to consumers, (2) the prevalence of prices that bear little relationship to real costs of services, and (3) its mixed-industry character--that is, the prominence of governmental and private "nonprofit" firms in competition with proprietary firms. Each of these characteristics, while not unique to this industry, is a basis for caution in forecasting the economic consequences of increased competition.

To be sure, the health-care market is not immune to the competitive pressures and tensions that characterize interactions between buyers and sellers in all markets. Nonetheless, while changes in pricing and reimbursement practices may help, if combined with other measures, to encourage competition, the characteristics mentioned above combine to pose serious questions about our conventional faith in competition to bring about an efficient allocation of resources.

## COMPETITION IN HEALTH CARE: A CAUTIONARY VIEW

You can fool all the people some of the time and some of the people all the time, but competition prevents you from fooling all the people all the time. Economists' confidence in competition is not unbounded, but it surely is of first-order magnitude. Really, then, how can an economist argue seriously that increased competition may not be desirable--indeed, that it may be inefficient?

In markets for ordinary commodities, competition is generally thought of as an unmitigated blessing. Indeed, non-competitive markets normally imply "market failures." Competition increases options for consumers, and leads producers--as if by an "invisible hand"--to minimize production costs and to maximize economic efficiency--all in the process of their pursuit of profit. The result, at least in equilibrium, is that individual self-interest--utility maximization for consumers and profit-maximization for producers--coincides with social-welfare maximization.

The meaning of "competition," however, deserves attention. Depending on the context it may refer to (1) the number of sellers (or buyers--but we focus here only on the supply side of the market), (2) the degree of independent, non-collusive action among sellers, (3) the variety of goods

or services offered, or (4) the variety of pricing arrangements available. Given that our subject is the desirability of increased competition in health care, it is important that we be clear as to precisely which dimension(s) of competition are being considered. For example, it is a theme of this paper that greater competition in any or all of dimension (1), (2), and (3) above, may well be unproductive or even counter-productive if certain conditions hold with respect to dimension (4). Moreover, whatever the conditions regarding dimension (4), the ability of consumers to take advantage of increases in dimensions (1), (2), and (3) remains an important issue--and more so in the health-care area than in most markets.

Is the market for health care different than other markets? If it is, what is the role of competition in that industry? Without arguing that health care is unique, I want to emphasize that some basic assumptions underlying economists' confidence in competition do not hold in much of the health-care industry. As a result, our confidence in competition to optimize price, quantity and quality may not hold in health care. Why not? There are three principal reasons: lack of consumer information, inefficient pricing, and the influence of private nonprofit and governmental providers.

## I. INFORMATION

First, the standard competitive model assumes that consumers are well-informed or, what is equivalent, they can and do learn quickly and at low cost. Consider, for example, the market for chocolate chip cookies.

A consumer typically purchases cookies frequently enough to learn from experience which variety (or brand) of cookie he or she prefers. For medical care, the situation is typically rather different; it is obtained rather infrequently and in a wide variety of forms and for a wide variety of symptoms, which makes it difficult for the consumer to judge quality. That is, the consumer of medical care is not purchasing a standardized commodity consumed under standardized conditions, so that learning from experience is more complex.

Another aspect of the full-information assumption is that the consumer is able to judge the effect of a particular purchase--that is, is able to compare his or her utility level with and without the specific purchase, for it is this comparison that determines the consumer's willingness-to-pay. When cookies are involved, the consumer has little difficulty determining his or her utility with and without them. But when medical care is involved, judging the "counterfactual"--what would happen if the consumer did not obtain the care compared with what would happen if he or she did obtain it--is often dramatically difficult. The main factor is the ability of the human body to correct problems without external intervention. Physicians seem to have little doubt, for example, that at least 90 percent of all visits by patients with a problem are "unnecessary" in the sense that the patient would have recovered fully without seeing the physician. This uncertainty about the effectiveness of medical care gives this class of services an unusual character.

Answering the question of how one's welfare will be affected by the consumption of a particular good or service is more difficult for medical

care than for most goods and services not only because body mechanisms are fighting disease independently of medical interventions, but also because evidence of the effectiveness and side effects of the medical intervention is frequently delayed for days, weeks, or even decades. An example of the latter is the recent discovery of an abnormal frequency of cervical cancer among women whose mothers ingested a particular drug during pregnancy. It is frequently difficult to disentangle these forces in order to identify the incremental effect of the medical input. Health care, don't forget, is the field that made the term "quackery" famous. This is the economic sector that gave us the "violetta," a high voltage generator that allegedly "could treat 86 ailments, ranging from abscesses to writer's cramp," and this is the sector that brought forth "a hand-held vibrator that promised to remove cobwebs from the brain," and the "spectro-chrome," which treated heart disease with red and purple lights while the patient faced north, in the nude.<sup>1</sup>

In many markets, consumer information is enhanced through producers' advertising of prices and quality. The virtual absence of advertising in the health care area is noteworthy. It suggests not that competition is absent, but that the industry is highly unusual--so that conventional models of organization behavior may have limited applicability. What is the significance of the fact that medical societies have been able to prevent price advertising by physicians? What is the importance of the fact that one does not find physicians advertising the price of a standard

---

<sup>1</sup>Wall Street Journal, May 29, 1981, p. 23.

office visit, or hospitals advertising their high quality, low price, or a special "sale" price on surgery performed during off-peak demand periods? Price advertising is so rare that a recent example of it was deemed worthy of being reported on a radio broadcast: Milwaukee County Hospital recently advertised a flat-fee obstetrical service of \$999, compared to its "usual" price of \$2500.<sup>2</sup>

Consumers are generally aware of their inability to judge the effectiveness of medical attention. This leads to another sense in which medical care is "special"--though by no means unique: consumers, aware of their lack of ability to judge quality, are likely to turn to agents for advice; perhaps nowhere is the use of agents more widespread than in medical care, where physicians are in many cases virtually delegated the full decision-making authority for patients, not merely an advisory role.

The use of an agent generally carries the risk that the agent may have a conflict of interest, possibly serving his or her self-interest rather than the interest of the consumer-patient for whom he or she is agent--or, for that matter, of society in general. When a physician "recommends" return office visits, hospitalization in a hospital of which he or she is an owner, or use of a costly new diagnostic technology that has been installed in the office--just to cite a few examples--the consumer/patient may find it difficult to know whether the physician is or is not

---

<sup>2</sup>Ralph Andreano, "Hospitals on TV," Radio Station WHA, Madison, WI, "Morning People" Program, April 23, 1981.



serving the patient's best interest. Such agent-principal problems are associated with "informational asymmetry," situations in which buyers and sellers are unequally informed. Similar situations, in which the consumer relies on an agent who may or may not act in the consumer's best interest, are found in other industries, such as legal services, education and child care, and, in varying degree, throughout the business world. This same phenomenon occurs, for example, with respect to the honesty and completeness of information in corporate reports to stockholders. The point is not that medical care is a unique industry, but that it has characteristics that make inappropriate certain common assumptions--such as that of well-informed consumers--and that therefore raise some doubts about the economic consequences of increased competition.

There is another aspect of the agent-principal relationship that deserves attention as we examine the role of competition. Our current medical care system, by establishing the physician as the linchpin of the system, relies on the physician to determine the "appropriate" level and variety of medical care to be provided, including whether hospitalization is "required," for what period, with which level of service, with which specialists, and with which technology. One matter that seems to have been overlooked is that the current system places physicians in a position of dual, and conflicting responsibility: acting as (1) agent for the ill-informed patient--doing what the patient would do if he or she possessed the medical expertise of a physician--and simultaneously

as (2) agent for government--taking into account the fact that consumer-patients, given the low private cost of medical care, will sometimes have incentives to act in a privately rational but socially inefficient manner; pressure may be brought, for example, on the physician to admit an elderly parent into a hospital so as to reduce the private care-burden on the family. The physician's ethics code--a code that is frequently seen by economists as anti-competitive--seems to be oriented toward the physician-patient relationship rather than the physician-government relationship. This is not the place to delve deeply into the consequences of this ethics code, but we do need to understand much better than we do now how it affects the behavior of physicians, hospitals and patients. In addition, given that the code restricts competition in the physician's direct sphere of influence it is not apparent what the effects would be of increased competition--more alternatives--in closely related parts of the medical care industry--including the markets for nurses, psychiatric social workers, or health-care insurance.

Despite these various mechanisms for coping with informational asymmetries in health care, even quite sophisticated consumers are often quite poorly informed about important (to them) options.

Thirty years ago, Tibor Scitovsky wrote an influential article which, while not dealing explicitly with health care, is relevant to the informational problems in that market; in "Ignorance as a Source of Oligopoly Power" he showed that when consumers find it costly to judge quality, their lack of information restricts the effectiveness of competition and enhances

monopoly power.<sup>3</sup> Just a few years ago, Mark Satterthwaite analyzed the physician market in the context of consumers' information problems.<sup>4</sup> He showed that an increase in the supply of physicians could increase the cost to consumers of searching for an appropriate physician. By raising search costs, the increased supply would have the effect of making the demand for each physician's services more inelastic, thereby augmenting the physician's monopoly power. Mark Schlesinger pointed out that the same argument could apply to nursing homes. The result: Increased supply could lead to higher prices, not lower, as a conventional model of competition would imply. Still more recently, Joseph Stiglitz showed other conditions under which "increases in competition may lower welfare . . ." <sup>5</sup> In general it is not difficult to see that in a "second-best" world, where markets are imperfect and information is differentially costly for buyer and sellers (the case of "asymmetric information"), increased competition may well decrease economic welfare.

## II. PRICING IN HEALTH CARE

In this discussion I emphasize the role of "competition" in terms of increased number of suppliers. If, however, measures were taken to increase competition in the sense of encouraging changes in pricing practices, then some of the remarks in this section would not hold. At the same time

---

<sup>3</sup>American Economic Review, May 1950, pp. 48-53.

<sup>4</sup>"The Effect of Increased Supply on Equilibrium Price: A Theory for the Strange Case of Physicians Services." mimeo, n.d. (circa 1977).

<sup>5</sup>American Economic Review, May 1981, pp. 184-189, at p. 189.

it should be recognized that increased numbers of competitors would not necessarily bring increased price competition; moreover, increased price competition would have uncertain effects, given the informational problems discussed in the first section, above.

The health care industry is unusual not only in the degree to which its consumers are ill-informed, but also in the nature of its pricing practices. The economist's idealized competitive model assumes that prices reflect marginal social costs of production; consumers who face these prices will purchase the commodity if and only if its marginal value to them exceeds its marginal cost of production. But the economist's model of pricing is at best caricatured in the health care industry. With 90 percent or more of the U.S. population having some form of health insurance, the price to the patient of additional medical care is often zero, even though the social cost is far higher. Moreover, because employer-financed health insurance is not subject to income taxation, the purchase of health insurance is thereby subsidized. Finally, the health-care coverage under governmental Medicare and Medicaid programs act further to drive a wedge between the real cost of medical care and the price as seen by the consumer.

Whenever consumers of any good confront a price that is below social cost, excessive consumption is likely. Add to this effect a pricing system in which hospitals, physicians and other providers often are paid by governmental and private insurers on the basis of actual costs, so that there is little incentive for holding down costs, and are paid on the

basis of average, not marginal costs, and we see a pricing system that at every point fails to confront decision-makers with the true social costs of their decisions. This is far from the economist's model in which having more competitors promotes allocative efficiency. If, of course, pricing practices were changed at the same time that consumers were provided more alternatives, then the combined effect could be significant.

Prices serve as incentives. Prices that do not provide efficient choices permeate the medical care market. One element of non-optimal pricing that has received little attention involves medical research. In most industries, research is responsive to perceived opportunities either for reducing costs or developing new and profitable products. While these incentives do apply to research in the proprietary segment of the medical-care market--e.g., in the pharmaceutical industry--they do not necessarily apply to the billions of dollars of research sponsored annually by the government through the National Institutes of Health. The peer-review grant system rewards research that researchers regard as promising scientifically; the fruits of such research may well be expensive "half-way" technologies<sup>5</sup> that would receive less attention were it not for the medical-care insurance and provider-reimbursement arrangements that provide incentives to adopt technological improvements almost regardless of cost.<sup>6</sup>

---

<sup>5</sup>Lewis Thomas, The Lives of a Cell, New York: Bantam Books, 1975.

<sup>6</sup>John Goddeeris and Burton A. Weisbrod, "Medical Progress and Health Care Expenditures: The Uneasy Marriage," Viewpoints, Hoffmann-LaRoche, 1980.

With virtually every hospital wanting, for example, the latest type of "CAT" scanner--at a purchase price now over \$1 million--one cannot help but register a doubt about the consequences of increased competition if that meant having CAT scanners in more hospitals, clinics or physician offices. Unless the health insurance and medical care pricing systems are altered, it is by no means clear that an increase in the supply of medical-care resources will cut costs or increase social welfare.

Moreover, given the prevailing institutional structure, in which only certain physicians may treat patients in any particular hospital, and only a physician--not the patient--can admit a patient to a hospital, it is also not clear what increased competition, in the form of greater freedom of entry into the hospital industry, would bring about. It is likely, however, that the results would include more excess capacity among producers (hospitals) and commensurately higher average costs.

All of these pricing problems and interrelated institutional constraints in the health care industry limit our conventional reliance on competition among producers and freedom of entry to allocate medical care resources efficiently. But there is still another important sense in which the health-care industry is unusual and which raises doubts about the wisdom of applying the familiar prescription of competition for the industry's ailments--its "mixed industry" character. This is the subject of the next section.

### III. THE INFLUENCE OF GOVERNMENTAL AND PRIVATE NONPROFIT FIRMS

So far I have tried to show that the medical-care market violates two fundamental assumptions of the economic model in which more competition

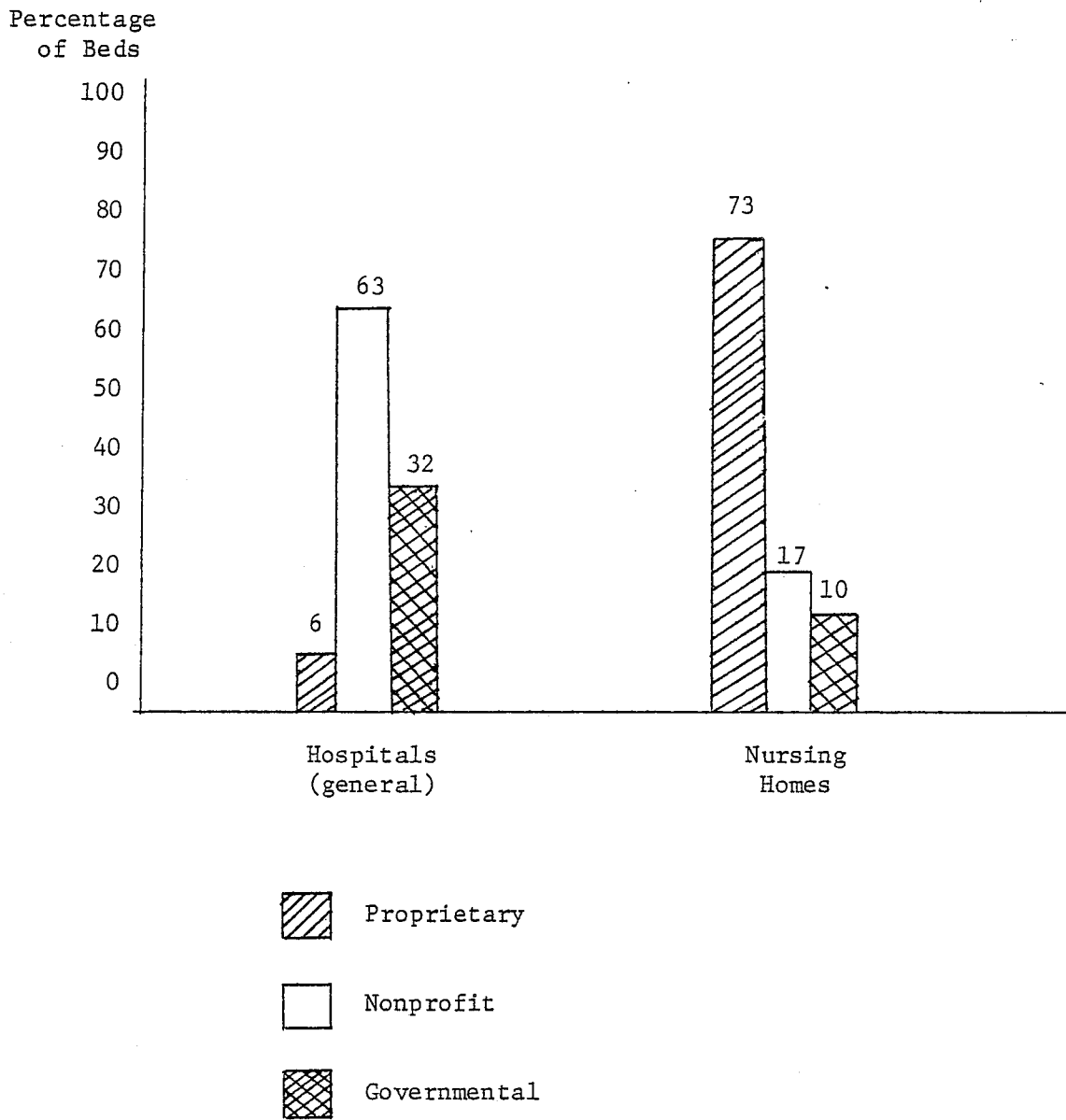
is better--well-informed consumers and prices that reflect the real marginal cost of production. There is a third important dimension in which the medical care market is unusual (although, again, not unique) in deviating from the model in which competition contributes to efficiency--the substantial role of non-proprietary producers--governmental and private nonprofit. In the hospital industry, for example, 32 percent of the beds are in governmental hospitals (city, county, state, federal) and 63 percent are in private nonprofit hospitals (Figure 1). In the nursing home industry, 10 percent of the beds are in homes run by governments (typically county) and 17 percent are in private nonprofit homes, while 73 percent are in proprietary homes (Figure 1).

The significance of this mixed industry character of the medical care sector may well be profound. In a market comprising only profit-maximizing firms, increased competition will tend to promote allocative efficiency and low prices (if there are no distortions resulting from informational, pricing or other sources of "private market failure"). Will the same be true of markets dominated by nonproprietary--governmental and private nonprofit--firms? The answer is not clear. Our present ability to understand and predict how such firms respond to increased competition is limited indeed.

The point is this: If one talks about the effects of increased competition in the health-care sector, one is implying that it makes little or no difference whether the increased competition is from proprietary firms, church-owned nonprofits, other nonprofits, governmental

Figure 1

The "Mixed" Health Care Industry, 1975





(community, county, state, federal), or some other form of institution. Yet such an assumption--that all these institutions behave in essentially the same way--is not suggested either by prevailing theory or empirical evidence. For example, there is some reason to believe that nonprofit hospitals concentrate on "high quality" service to a greater extent than do proprietary hospitals.<sup>7</sup> If this is so, then the effects of an increase in the number of hospital competitors will depend on the institutional form of those competitors. More nonprofit hospitals might well lead to increased costs, associated with the higher "quality." By contrast, more proprietary hospitals might bring about decreased costs and quality. The main point is not that we can assert confidently how the various institutional forms of hospitals, nursing homes, etc. compare in terms of quality and efficiency; rather that it is likely that they differ, that they are not perfect substitutes in all relevant respects. Institutional form counts, but we know little about how.<sup>8</sup>

Public policy measures affect not only the level of competition in health care but also its institutional forms: entry of nonprofit organizations depends significantly on Congressional legislation on tax-exempt, nonprofit organizations and on Internal Revenue Service administration

---

<sup>7</sup>Joseph P. Newhouse, "Towards a Theory of Nonprofit Institutions: An Economic Model of a Hospital," American Economic Review, March 1970, pp. 64-74. A. James Lee and Burton A. Weisbrod, "Collective Goods and the Voluntary Sector: The Case of the Hospital Industry," in Weisbrod, The Voluntary Nonprofit Sector (Lexington, MA: D.C. Heath & Co., Lexington Books), 1978.

<sup>8</sup>For a recent study comparing behavior of proprietary, governmental and private nonprofit organizations, with particular emphasis on nursing homes, see Burton A. Weisbrod and Mark Schlesinger, "Comparative Institutional Behavior in Markets with Asymmetric Information: An Application to Nursing Homes," Discussion Paper No. 679-81, Institute for Research on Poverty, University of Wisconsin-Madison, 1981 (forthcoming).

of that legislation; entry of governmental organizations is determined explicitly by legislatures; and the entry of proprietary firms depends similarly on governmental policies involving taxation, subsidization, and regulation of expenditures, minimum service quality, and prices. There are, in short, many restrictions on entry and competition; changes in some or even all will affect both the numbers of suppliers and the institutional composition, with consequences that are not entirely foreseeable. The principal reason is that we do not have satisfactory theoretic models for predicting behavior of governmental and private nonprofit organizations (church-owned or otherwise), models that specify objectives (such as profit-maximization in the proprietary sector) and constraints (such as market demand). More specifically, we know little about the manner in which various types of organizations respond to such stimuli as taxes, subsidies, expenditure ceilings, regulatory constraints, and increased or decreased competition.

While formal theory may be weak, there are widespread opinions about the comparative behavior of nonprofit, governmental, and proprietary organizations. A New York State regulatory commission report recently recommended that the government "gradually phase out proprietary nursing facilities in New York . . . [and] substitute voluntary, nonprofit institutions as the mainstay of this industry."<sup>9</sup> Another study--this of the children's day-care industry--stated: "There appears to be near-consensus

---

<sup>9</sup> Long Term Care Regulation: Past Lapses, Future Prospects, Summary Report of the New York State Moreland Act Commission on Nursing Homes and Residential Facilities, Albany, NY, April 1975, p. 13.

among persons who write about day care that private for-profit enterprises and the 'market' is an unsatisfactory way of organizing this activity." Turning to the health-care sector, the authors observed that "relatedly, there is a deep suspicion of for-profit nursing homes and hospitals. Clearly, profit is being mentally associated with exploitation rather than responsible service."<sup>10</sup> Such alleged "exploitation" is possible because of the informational asymmetry discussed in Section I, above.

In a study of the nursing home industry I have underway in collaboration with Mark Schlesinger, we seek to shed light on the question of whether institutional form in health care matters--whether, in particular, nursing homes owned by proprietary firms, church-run nonprofit organizations, non-church nonprofits, and governments behave differently. Specifically, we ask whether they violate regulatory codes with different frequency and whether they give rise to different numbers of formal complaints to the state. Our findings: controlling for size and a number of location and quality variables, (1) proprietary homes have significantly fewer violations of regulatory codes, but (2) church-run nonprofits have significantly fewer complaints.<sup>11</sup> At least in terms of adherence to regulatory codes, the various ownership types do behave differently; and

---

<sup>10</sup>Richard Nelson and Michael Krashinsky, "Two Major Issues of Public Policy: Public Subsidy and The Organization of Supply," in Public Policy for Day Care of Young Children, eds. Dennis Young and Richard Nelson, Lexington Books, Lexington, Mass., 1973.

<sup>11</sup>See note 8, above.

consumers do seem to perceive some differences. Such findings do not necessarily imply differences in "quality" of outputs that are medically relevant, but they do highlight the likelihood that it does make a difference whether increased competition comes from one institutional form or another.

#### IV. CONCLUSION

The health care industry is quite unusual. I have focused on three important dimensions of its atypical behavior: the limited information available to consumers, the prevalence of prices that bear little relationship to real costs of services, and the prominence of governmental and private "nonprofit" firms in competition with proprietary firms. Our conventional confidence in competitive markets grows largely from a model in which consumers are well-informed, prices reflect real marginal costs, and firms are profit maximizers. Thus, the consequences and the virtues of increased competition in the health care sector are not self-evident. In general, when some conditions required for efficiency do not hold, fulfilling other conditions does not enhance efficiency.

I have barely--if at all--touched on a number of other characteristics of the health-care market that make it unusual--the fact that life itself is sometimes at stake, that the industry is heavily regulated and that much of the regulation (particularly by the Food and Drug Administration when approving new drugs) ignores prices and costs, and that equity goals--involving equal or at least some substantial minimum level of access

to health care for everyone, poor and nonpoor--are as important as efficiency.

A coherent health-care policy remains a distant vision in the United States. Given the system we now have--some term it a non-system--we should be cautious about relying heavily on competition--on an increase in the supply and variety of health-care providers and facilities--to optimize the level and distribution of health care resources. Changes in pricing and reimbursement practices may help, if combined with other measures to encourage competition, but the unusual informational problems of the industry, and its reliance on non-profit institutions combine to pose serious questions about our conventional faith in competition.

I would not wish to close, however, by unduly dramatizing the uniqueness of health care. In many ways it is similar to the legal services and education markets, for example, where output is also difficult to monitor, consumers are often poorly informed, prices are often inefficient, and professional suppliers are powerful. More broadly, the health-care market is not immune to the competitive pressures and tensions that characterize interactions between buyers and sellers in all markets. The point on which I will close is this: We cannot construct wise public policy on health care by applying elementary economic analysis. Competition does have a role to play. Yet, the markets for health care and for chocolate chip cookies are different!