The Changing United States Health Care System: The Effect of Competition on Structure and Performance

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Abstract: *Originally intended for a European audience, this paper presents a brief summary of how public policies and private economic conditions combined to shape the structure and the nature of competition in the United States health care system. Separate sections review the nature of competition in the hospital sector, the health insurance sector, and the managed care sector. Brief summaries of empirical economic research about the effects of competition on market structure and performance are presented. A major conclusion is that market competition in health care markets is effective in providing consumers with both cost-effective health care and improvements in quality, but that existing tax policy and payment policies in public programs do not allow the effects of competition to reach their full potential.*

The health care sector is a major component of the U.S. economy accounting for 13.5 percent of GDP and 12.5 percent of civilian employment in 1998.[1] This paper is a brief review of how the health care system developed its particular structure and how that structure has affected the nature of competition in this country. Some speculation about the future of health policy in the United States is also included.

Like all advanced industrial countries, the health care system in the U.S. has been primarily influenced by the development of modern medical science that has affected the basic education and training of health care professionals and determined the nature of treatment for most patients for most medical conditions. But two events in public policy have had a major influence on the organizational structure of U.S. health care and the economic behavior of providers and patients. The first was the exclusion of employer-based health insurance from taxable income, a policy established during World War II in response

to the special wartime labor market conditions that later had large and unforeseen effects on the development of health insurance.[2]

The decision in 1943 to exclude the value of health insurance provided by an employer from employee taxable income was made at a time when health insurance was just beginning to emerge as a commercial product. Consequently, the cost of health insurance was a relatively minor part of the cost of employing workers. This situation was not to last in the post-war period that saw a large increase in the demand for health insurance to cover the increasing costs of new and more effective medical procedures. While there was some growth in insurance purchased directly by individuals, the policy of excluding health insurance provided through an employer from taxable income created a strong incentive for employees to bargain for and receive tax-free health insurance through their workplace. Over the next 50-plus years this tax policy has caused almost all private health insurance to be offered through employers rather than being purchased directly by individuals. According to the research by Martin Feldstein and others, this tax policy has had the effect of increasing the total demand for health insurance, increasing the demand for more complete insurance (reducing the use of cost sharing in insurance), driving up the cost of medical care, and diminishing the affordability and availability of health insurance to all Americans, including those without access to health insurance provided by an employer. Economists have documented that the type of health insurance created by this tax policy has reduced the incentives of consumers to seek out and providers to supply more cost-effective modes of medical care. The result is an inefficient system of health care that relies too much on cost-increasing technologies and leaves a large percentage of the population without health insurance coverage.

The second major effect on the structure of the U.S. health care system was the passage in 1965 of Medicare and Medicaid, two programs that grew into large government programs to finance health care for the aged and the poor.[3] While these two programs rely mostly on federal financing, the provision of care is from the same private physicians, hospitals, and managed care organizations that are delivering care to the private sector. The demand-reducing effect of cost sharing in these programs has been allowed to decline so that the effect of overinsurance in the private sector is reinforced in the public sector. The result is a health care system that provides rather complete coverage for most medical care for over 85 percent of the working, aged, or poor population, but leaves about 42 million people without health insurance coverage. The majority who are covered do not have strong incentives to be cost effective in their purchase of health care. The inflationary pressures caused by inefficient design of health insurance leaves both private and public managers of health insurance or health delivery plans with the administrative problem of trying to control utilization and costs through controls on providers.

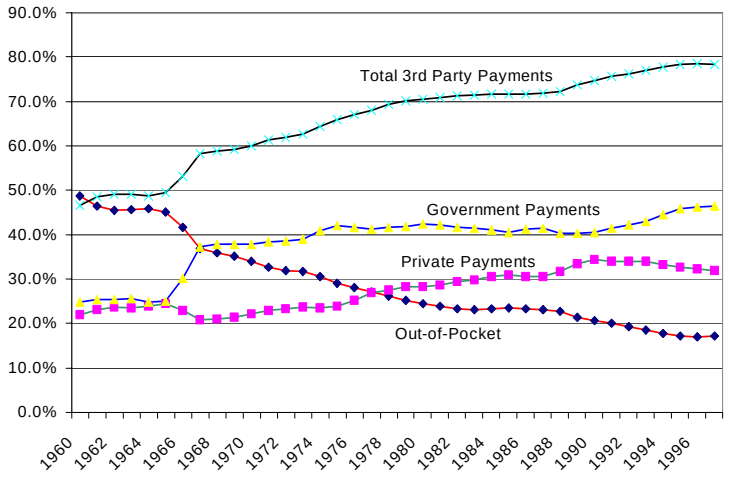

Figure 1: Growth in Third-Party Payments, Percent, 1960-1997; Source: HCFA, National Health Statistics.

Figure 1 illustrates the major changes in the financing of health care by comparing the total of health care expenditures paid by the government and private insurance to the out-of-pocket expenditures of individuals. These changes in the way health care has been paid for have

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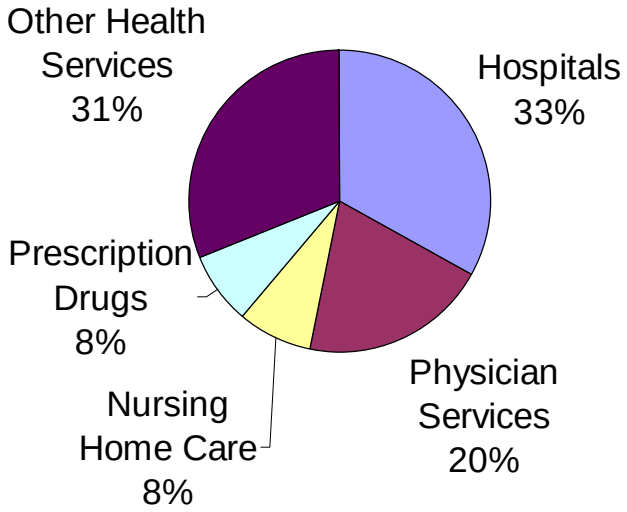


Levit, et al, "Health Spending in 1998: Signals of Change," Health Affairs, Jan/Feb 2000, Exhibit 3.

Figure 2: Distribution by Spending Category, 1998

Figure 2 illustrates the major categories of health expenditures in 1998. Hospitals remain the largest sector of the health care system followed by physician services, nursing home care, and prescription services. Other health services consist of several smaller categories of health spending, such as other professional services (5.8 percent), administrative costs for public and private insurance (5 percent), and dental services (4.7 percent).[5] The following will present some basic information about the changing structure of the major components of the health care system in the U.S.

The Hospital Sector

American hospitals still make up the dominant segment of the U.S. health care system. This is where most serious health care problems are treated and where both public

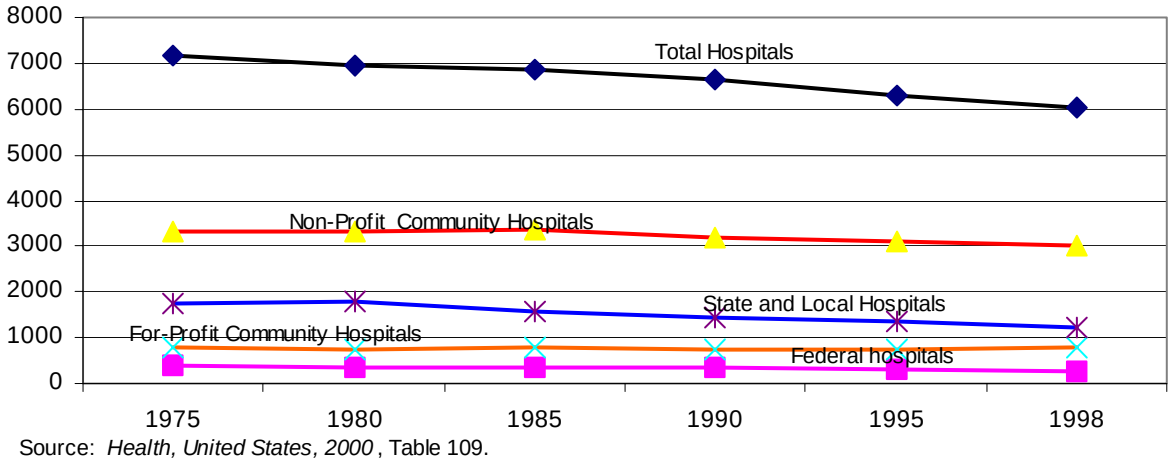
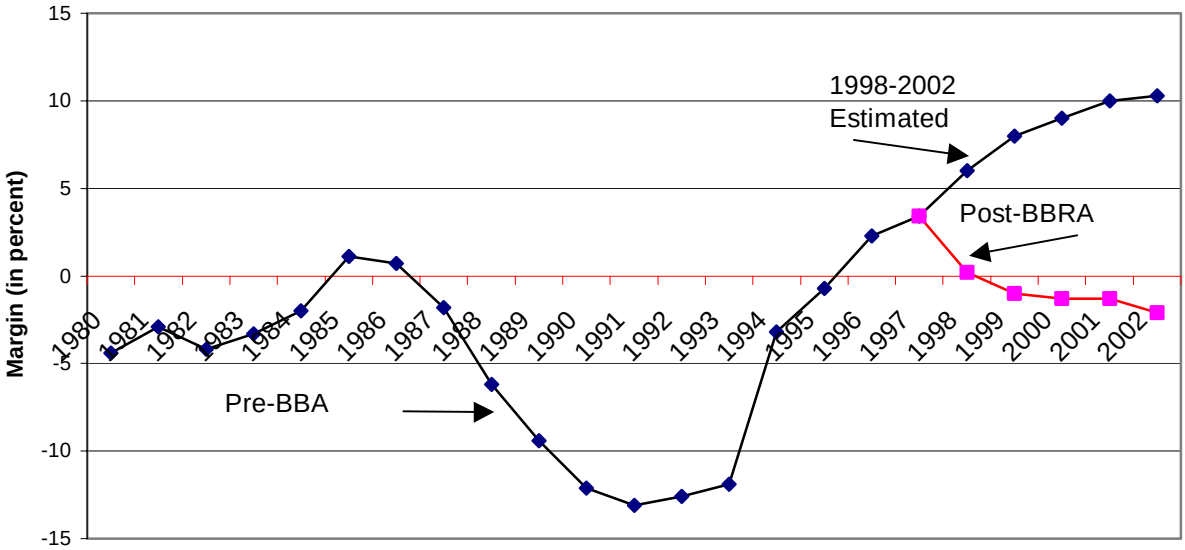


Figure 3: Number of Hospitals, 1975-1998

and private payers spend the most money. As illustrated in Figure 3, we now have about 6000 hospitals in the U.S., down slightly from about 7000 in 1975. There has been some decline in not-for-profit community hospitals and in public hospitals. The for-profit hospital sector has remained almost constant even though there has been some conversion of not-for-profit hospitals to for-profit hospitals. The hospital sector is generally considered to be overbuilt as a result of the Hill-Burton Act of 1946 that provided large federal subsidies for the construction of community hospitals.[6] During this period American hospitals have experienced a reduction in the number of beds and in occupancy rates but an increase in spending for hospital services. This reflects in part the effect of managed care's use of selective contracting with providers to reduce the demand for hospital services and move some care to an outpatient basis.

Payments to hospitals in the 1990s have been affected by two major changes in Medicare policies, both brought about by new legislation adopted by the Congress. The first was the Balanced Budget Act of 1997 (BBA) that was estimated at the time to reduce hospital payments by $112 billion between 1998 and 2002. The actual reductions in payments turned out to be greater than expected leading the Congressional Budget Office (CBO) in the spring of 1999 to estimate that the five-year cuts in Medicare payments would be $196 billion. Intense lobbying by the hospital and home health care industries led congress to pass the Balanced Budget Refinement Act (BBRA) in 1999 which was expected to restore $11 billion in Medicare payments in FY 2000 through 2002. Meanwhile, the actual payments to Medicare providers continued to decline relative to the pre-BBA baseline. The effects of these two acts on hospital Medicare margins are illustrated in Figure 4.[7]



Source: Stuart Guterman, "Putting Medicare in Context," The Urban Institute, July 2000, Figure 10.

Figure 4: Effects of BBA and BBRA on Hospitals' Medicare Margins

Joseph Newhouse, a leading health economist and co-chairman of the Medicare Payment Advisory Committee (MedPAC), has pointed out there is a direct relationship between Medicare payments to hospitals and the hospitals' willingness to bargain for payment from private payers. This is illustrated in Figure 5 that plots MedPAC data on Medicare and private payments as a percent of Medicare costs.[8] Newhouse points out that except for the last year, the year-to-year changes in these two series always go in opposite directions. When Medicare payments were declining, as was the case in the early 1990s, hospitals bargained for higher rates from private payers as a way of trying to make up for the lost revenue from Medicare. But these same hospitals had weaker incentives to bargain with private payers when Medicare payments were increasing, as was the case for most of the

1990s after 1993. In 1998 and until the present, the pressure to save costs from the dominant

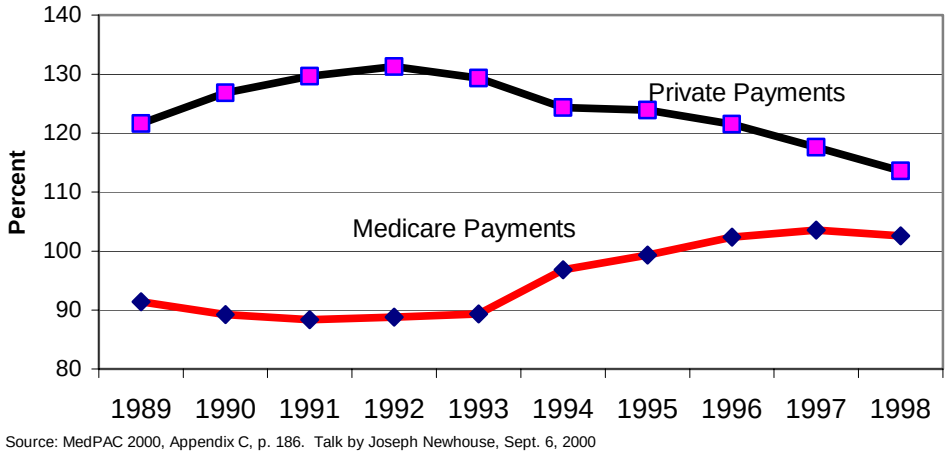


Figure 5: Hospital Payments Relative to Costs, 1989-1998

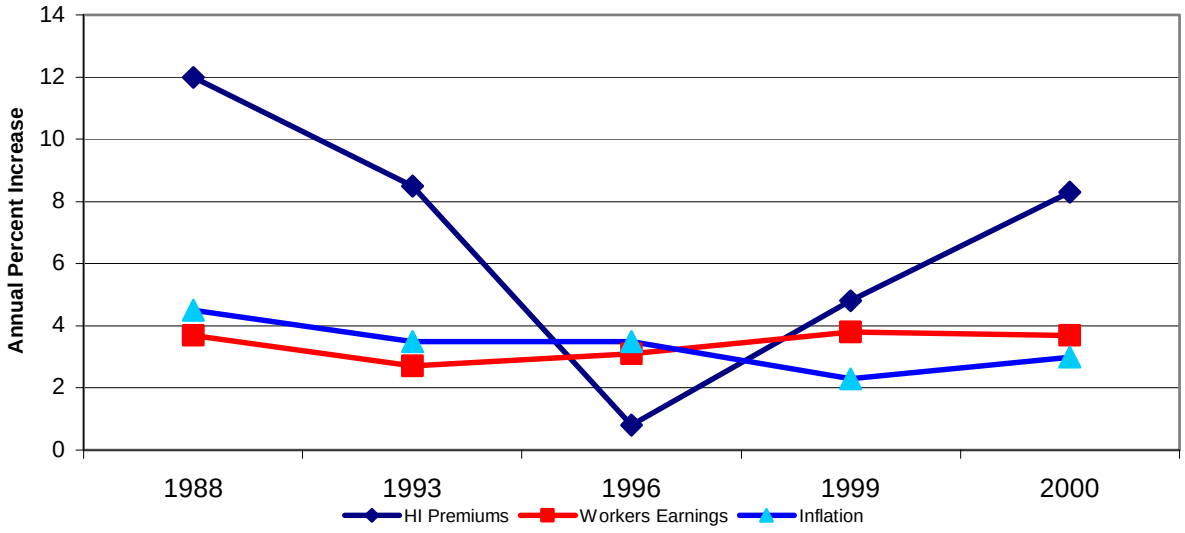
managed care sector has put the hospital sector into a more competitive environment that has resulted in declining payments relative to costs from all payers. The effects of congressional action in late 2000 to increase Medicare payments may reverse this trend in the next few years.

The Insurance Industry Sector

In 1998, private health insurance companies paid 33 percent of personal health expenditures ($337 billion). There are now about 950 insurance companies selling health insurance policies in the U.S.[9] These policies provided health insurance coverage to over 188 million Americans in 1999.

The health insurance industry has changed dramatically in the last 20 years. In the first 30 years following WWII, the industry mostly sold indemnity policies to employers. In the 1980s and 1990s, the industry gradually changed to the administration of self-insured employer plans and selling managed care arrangements to employers. A small number of

firms sell policies to individuals, but the majority of the business is through employers who cover their workers as a group.[10]



KFF/HRET Survey of Employer-Sponsored Health Benefits, 1988-2000

Figure 6: Health Insurance Premiums, Annual Percent Increase, 1988-2000

Figure 6 illustrates the roller-coaster nature of private health insurance in the last decade. It shows that health insurance premiums declined relative to workers' earnings and general inflation in the first half of the decade. This decline was generally thought to be the result of an intense effort by employers to control the cost of health insurance by turning to managed care arrangements that were employing more aggressive tactics to control health care utilization and costs. The decline in premiums turned around after 1996 and has been steadily increasing since then. This has been due to several factors such as a very tight labor market and much dissatisfaction by employees about the cost-saving tactics of managed care companies, the so called, "managed care backlash." If the impressive growth of the U.S. economy slows down in the next few years, the private sector will be forced to find new strategies to control health insurance costs while keeping employees happy.

The Managed Care Sector

The growth of managed care in the U.S. has obviously had a major effect on the structure and performance of the health care sector. But understanding this change is made more difficult by the fact that managed care is difficult to define as a segment of the health care system. The term generally refers to a variety of health plans that have evolved over time in the last 30 years and that continue to change in response to market conditions. The following list presents the most common of these forms of organization with some discussion how they operate.

- **HMO** (Health Maintenance Organization): Developed by Paul Ellwood, the term HMO was the original term for a managed care firm, most of which started as a staff model HMO similar to Kaiser. The term is still used interchangeably with managed care and can refer to one of several types of arrangements that vary by the type of contractual arrangement they have with their physicians. Types of HMOs are staff, group, network, or IPA (see below).
- **PPO** (Preferred Provider Organization): PPOs are typically organized in local or regional markets by insurance companies who negotiate fee schedules (discounted provider fees for all patients enrolled in the plan) with networks of providers. Most providers in a given market will belong to several PPOs so that, from the consumer's point of view, most PPOs appear to be similar.
- **POS** (Point of Service Plans): POS plan became popular in the 1990s because they contain the attractive feature of allowing any individual to use providers that are outside the plan's network of providers by paying higher co-payments. This

increases the choices available to consumers, a feature that is especially attractive to patients who want to see specific medical specialists.

- **IPA** (Independent Practice Association): IPAs are a type of provider organization where the network of providers is organized and owned by the members. This form of organization has become more popular with physicians in the last few years. In 1996, there were 4000 IPAs in the U.S. with an average size of 300 physicians per plan.
- **PPM** (Private Physician Management Firms): A more recent variation of the IPA, the PPM is an organization that either owns physician practices or sells practice management services (marketing, office management, negotiating with managed care firms) to groups of physicians. In 1996 there were 26,000 physicians affiliated with PPMs).[11]

Figure 7 illustrates the major changes that have occurred in the health care sector since 1988. Enrollment in traditional indemnity insurance plans declined while newer forms of managed care arrangements grew in enrollment. These newer types of health plans were popular with employers because they provided some control of the rising cost of health care. Their popularity with employees gradually declined over the period as the plans cost cutting policies increasingly interfered with the style of health care that employees had learned to expect. These trends are consistent with the increased involvement of physicians with managed care plans. Surveys of physicians by the

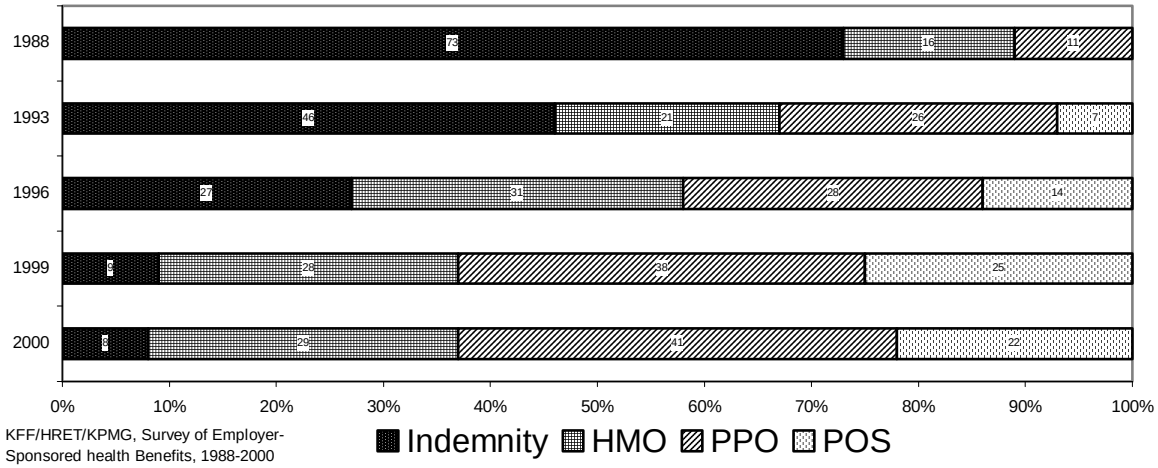


Figure 7: Changes in Health Plan Enrollment, 1988-2000

AMA indicates that the number of physicians with managed care contracts increased from 77 percent in 1994 to 92 percent in 1997.[12]

While most of the growth in managed care occurred in the private employment sector, Medicare and Medicaid also saw significant increases in managed care enrollment in the last decade. Medicare enrollment in managed care had grown to 6.4 million in 1999, up from 1.6 million in 1991. As states turned to managed care companies to manage their programs, Medicaid managed care enrollment increased from 1.1 million in 1991 to 10.8 million in 1999.[13] The rate of growth in enrollment in public programs has declined since 1996 due to cuts in Medicare payments and the decline in Medicaid enrollment due to welfare reform.

The Effects of Market Competition

The changing nature of competition and its effects on the health care sector has been an active area of research for health economists and health services researchers. This section reviews some of the major findings from that research.

For our purposes, we are fortunate that health economist Michael Morrisey has just completed a major review of 61 empirical studies of the effects of competition in hospital and managed care markets.[14] Morrisey divides his review into studies of hospital markets and studies of managed care markets. Most of these studies have been done on the hospital market where the market is easier to define and the data is more abundant. One of his major findings is that managed care has had a major effect on most medical markets.

In the hospital sector, he finds that managed care's use of selective contracting among hospitals has allowed the managed care firms to receive lower prices from hospitals. This effect seems to be stronger in geographical markets that have a more competitive structure, that is, that have more hospitals competing for the existing patients. There have also been extensive studies of the effects of mergers, a major concern of our antitrust agencies. The evidence so far does not find that these mergers have affected prices. There is also some evidence that managed care growth has not increased the travel distances that patients must travel to get to a hospital, a result that might be expected when managed care firms selectively contract with only a subset of the hospitals in any given market. Morrisey also reports that studies of the effects of competition on specialization and diffusion of technology are mixed, which means that much more research needs to be done in this area.

The smaller number of studies looking at the effects of competition among managed care plans also finds that increased competition is associated with lower premiums. The studies also indicate that the form of managed care also makes a difference since HMO market penetration appears to be more effective than PPO penetration in lowering premiums. This finding seems logical since HMOs are generally more structured and are therefore more selective in their contracting than PPOs that tend to contract with almost all hospitals in an

area. The studies also indicate that firms that offer group insurance through an insurance company obtain more favorable premiums than do self-insured employers. Morrisey believes this is due to the fact that self-insured plans keep more employees out of managed care thereby lowering the competitive effect of selective contracting.

A new study on HMO market penetration, not included in the Morrisey review, reinforces Morrisey's conclusions about the effects of competition.[15] Using a sample of

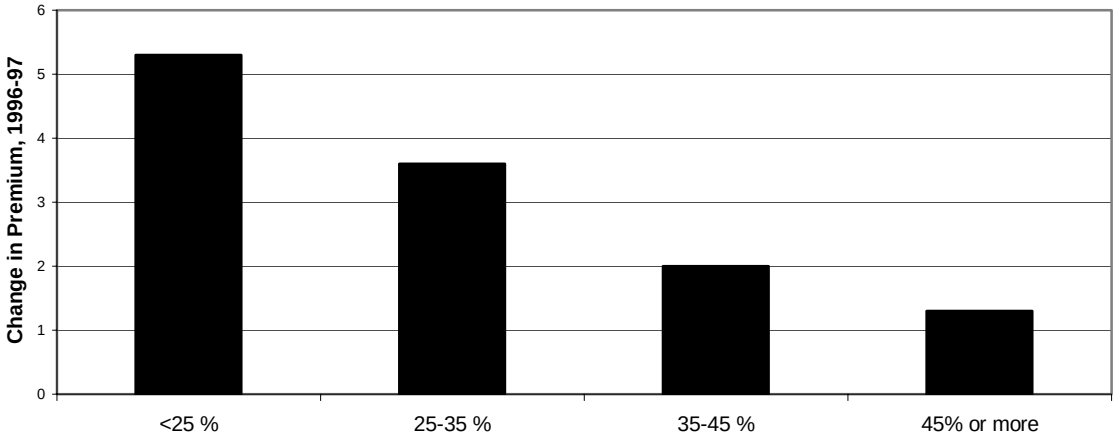


Figure 8: HMO Penetration Lowers Employer Premiums, 1996-1997

7,832 health plans offered by 6,083 employers in 43 geographical markets, Baker, et al, find that lower increases in plan premiums are associated with higher HMO penetration rates (see Figure 8). Again, when managed care firms are more aggressive in the use of selective contracting, the savings from competition seem to be passed on to employers, the purchasers of group plans.

An additional study of market competition by Kessler and McClellan finds similar results but adds in a finding about quality.[16] They use data on 573,000 elderly heart attack patients (AMI) admitted to about 2,500 hospitals between the years 1985 and 1994. They find that the effects of market competition changed in the 1990s from what it had been in the

1980s. Before 1990, hospital markets that had more hospitals had higher costs and modest improvements in medical outcomes than markets with fewer hospitals. After 1990, rivalry among hospitals in more competitive markets was associated with substantially lower costs and significantly lower rates of adverse outcomes. They conclude that the welfare gains from competition are larger in areas of high HMO enrollment.

The Future of U.S. Health Policy

A large body of empirical literature supports the notion that the effects of market competition in U.S. health care markets is effective in providing consumers with both cost-effective health care and improvements in quality. But existing tax policy and payment policies in the public sector do not allow the effects of competition to reach their full potential to provide better value to consumers. To reach this potential would require a different direction in public policy, a direction that is still resisted by most politicians and special interests within the medical sector.

The United States is now at a crossroads regarding the future direction of health policy. This debate about how to achieve more efficiency and expand benefits was a major issue in the recent campaigns for the presidency and for members of congress. The election, as we now know, resulted in a very close election victory for George W. Bush, a 50-50 split in the Senate, and a very small Republican majority in the House of Representatives. Most health policy observers, including myself, believe that this situation will not allow the new administration to make strong moves to substantially change the direction of health policy away from a reliance on direct controls to a policy driven by individual choice and market competition. The Bush Administration and almost every member of congress is committed

to trying to expand drug coverage for the elderly and doing something to expand health insurance coverage for those presently without coverage. Much will depend on the priority the new administration places on health policy relative to other policy objectives and the willingness of the Democratic opposition to compromise in order to pass legislation. At this point, it is just not clear whether the political stalemate of the last several years will continue or if a new era of bipartisan compromise will emerge. Proponents of both approaches are hard at work in every area of public policy, including all aspects of health policy. Most theories of political behavior would argue against any major change in health policy when both houses of the congress are so evenly divided and congressional elections are only two years away. But political theories have been wrong before, so we will have to wait to see if the U.S. adopts a health policy more dependent on market competition or if it continues with its current set of inefficient policies.

Conclusion

The U.S. health care system has many imperfections and problems, and it is certainly not a model of pure competition, the kind used in textbooks as an aid to teaching economics. But the complex system of public and private financing, combined with the private provision of health care, does exhibit a kind of market competition that responds to both changing technology and consumer desires. In that sense, it provides a laboratory to test the effects of market competition that is not found in European systems. If properly interpreted, evidence on U.S. market effects could be a guide to policy in other countries.

Endnotes

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[1] *Statistical Abstract of the United States: 1999.*

[2] For a more complete history with references, see my "The Tax Treatment of Health Insurance: Early History and Evidence, 1940-1970," in Grace-Marie Arnett, ed., *Empowering Health Care Consumers Through Tax Reform*. Ann Arbor: University of Michigan Press, 1999. pp. 1-25.

[3] For a short history of Medicare with references, see my "The Origins of Medicare," *The World & I*, Vol. 14, No. 3, March 1999, pp. 40-45.

[4] HCFA, Office of the Actuary, National Health Statistics Group.

[5] Other categories of spending are: government public health activities, 3.2 percent; other personal health care, 2.8 percent; home health care, 2.5 percent; research, 1.7 percent; construction, 1.3 percent; and vision and other medical durables, 1.3 percent.

[6] For a more complete history of the U.S. hospital sector, see David Dranove and William D. White, *How Hospitals Survived: Competition and the American Hospital*. Washington, D.C.: The AEI Press, 1999.

[7] Stuart Guterman, *Putting Medicare in Context*, The Urban Institute, July 2000, Figure 10.

[8] Talk by Joseph Newhouse, September 6, 2000. Data from MedPAC 2000, Appendix C, p. 186.

[9] HIAA, *Source Book of Health Insurance, 1999-2000*, Health Insurance Association of America. Many of these companies are quite small. There are 295 companies that belong to HIAA, the major industry trade group.

[10] See Mark V. Pauly, *Health Benefits at Work*. Ann Arbor: The University of Michigan Press, 1997.

[11] American Medical Association, Physician Practice Surveys.

[12] AMA Socioeconomic Characteristics of Medical Practice, 1995 and 1997/98 editions.

[13] Interstudy 2000, www.hmodata.com

[14] Michael A. Morrisey, "Competition in Hospital and Health Insurance Markets," draft, August 2000. Quoted by permission from the author.

[15] Laurence C. Baker, Joel C. Cantor, Stephen H. Long, and M. Susan Marquis, "HMO Market Penetration and Costs of Employer-Sponsored Health Plans," *Health Affairs*, Vol. 19, No. 5, September/October 2000, pp. 121-128.

[16] Daniel P. Kessler and Mark B. McClellan, "Is Hospital Competition Socially Wasteful?" *The Quarterly Journal of Economics*, Vol. 115, Issue 2, May 2000, pp. 577-615.