What Is Different About the Market for Health Care?

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ECONOMICS IS A SOCIAL SCIENCE THAT DESCRIBES HOW society produces and consumes goods and services. It is concerned with both efficiency (getting the most out of a fixed amount of resources) and distribution (who gains and who loses). The use of free markets as a mechanism of promoting efficiency has been touted by the majority of economists since the time of Adam Smith. His theory was that in free markets each individual, pursuing his or her own self-interests, will be led, as if by some "invisible hand," to produce an allocation that maximizes society's utility.

However, certain conditions are required for free markets to result in efficient allocations. First among these is perfect competition, ie, a market in which no individual buyer or seller can affect the price by his or her actions. Without this condition, structural imperfections or market distortions arise and result in inefficient allocations. For example, the oil market is distorted because the Organization of the Petroleum Exporting Countries (OPEC) has exerted influence on the price of oil by restricting its supply since the 1970s.

The market for health care contains many distortions, including asymmetry of information between clinicians and patients; clinicians' dual roles as patient agent and independent business owner (profiting by ordering or providing certain medical services); the effect of insurance in reducing the apparent cost of health care services to patients (since the full cost of health care is not charged to patients, also known as the "price-wedge" distortion); tax subsidies that have a similar effect on consumers' decisions to purchase insurance; and monopoly power bestowed on certain professions and, in some countries, health insurance plans, thereby limiting competition.

Over the last 40 years, health economists have devoted considerable attention to the impact of these distortions on the market for health care. Feldstein[1] was one of the first to write about the distorting effect of health insurance tax subsidies on market efficiency. Detsky[2] described asymmetry of information and impact of clinician as agent. Arrow[3] noted that when markets fail, public policies are often derived to ameliorate the consequences.

In this Commentary we review 3 classic efforts to describe,[4] to quantify,[5-9] and to propose solutions to[10] market distortions in health care. These efforts framed policy initiatives over the last 40 years and remain relevant to health policy debates today.

Three Classic Efforts

The Medical Commons. In 1973, Hiatt[4] first challenged the medical profession to determine who was responsible for protecting the "medical commons." Referring to an article by Hardin,[11] Hiatt drew an analogy between the practice of medicine and the practice of a group of herdsmen whose cattle share a common pasture to describe 2 important health care market distortions: the price wedge and asymmetry of information. As long as the number of animals is small in relation to the capacity of the pasture, each herdsman can increase his holdings without detriment to the general welfare. However, once the pasture begins to reach capacity, each animal has the potential to do irrevocable harm to the long-term sustainability of the system through overconsumption. Hiatt maintained that the medical commons was approaching depletion, a consequence of "free access" to health care resulting in overconsumption (a process referred to by economists as "moral hazard") and increasing costs exacerbated by expensive technological innovations of unproven effectiveness.

Hiatt proposed 3 types of solutions (using terminology that developed in the decades after his article was published): clinical evaluation of current practices (evidence-based medicine [EBM]), national priority setting, and an expansion of health care to include the social determinants of health with a focus on prevention.

The Rand Health Insurance Experiment. One of the largest randomized social trials ever performed was under-

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taken by the RAND Corporation in the 1970s: the Health Insurance Experiment (HIE).[5] The study asked 3 questions. First, how do demand-side incentives (eg, cost sharing) affect total health care utilization and expenditures? Second, what is the effect of cost sharing on health? Third, what are the consequences of cost sharing on appropriateness and quality of care? The first 2 questions address the effect of the price-wedge distortion on expenditures and health. The third question partially addresses asymmetry of information.

The HIE enrolled 7700 adults younger than 65 years in 6 sites (both urban and rural) across the United States. Participants were randomly assigned to 1 of 5 groups: participants in 1 group were offered free care, those in 3 were offered varying levels of cost sharing (25%, 50%, or 95%) up to a maximum expenditure, and those in the last were enrolled in a nonprofit health maintenance organization. Those who enrolled participated for a period of 3 to 5 years.

As to the first question, the effect of cost sharing on total expenditures was significant. Patients with 25% coinsurance spent 20% less than those with free care, and those with 95% coinsurance spent approximately 30% less.[6] Savings resulted from using fewer services rather than from finding clinicians or health centers with lower prices. As a specific example, families enrolled in cost-sharing plans made only about two-thirds as many outpatient visits as those who received free care.

As to the second question, there was no significant difference in overall health (based on 11 measures) between participants enrolled in free and cost-sharing insurance plans.[7] Families that used medical resources more frequently as a result of less out-of-pocket cost gained no detected advantage in terms of improving their "health." Not even smoking status, cholesterol levels, or weight differed as a function of insurance plan. However, among the poorest and sickest 6% of the sample, free care was associated with better health for 3 of 11 measures: diastolic blood pressure, functional far vision, and risk of dying. These better health outcomes were attributed to increased physician visits by families who were offered free health care.

As to the third question, the effect of cost sharing on appropriateness of care was assessed by grouping interventions into 7 categories that ranged from highly effective to rarely effective, based on information available at that time. Cost sharing reduced overall use of medical care, but there was no difference in change of use between effective and ineffective care.[8] That is, restriction of care as a result of facing a higher "true cost" did not result in patients increasing the proportion of their care considered appropriate by RAND experts or, conversely, decreasing the proportion considered inappropriate. In addition, differences in inappropriate hospital admissions between cost-sharing plans were not statistically significant.[9] These findings may have influenced the trend to focus on supply-sided instruments to improve appropriateness of care.

Consumer Choice Health Plan. In 1978, Enthoven[10] developed a proposal for a new national health insurance system known as the Consumer Choice Health Plan (CCHP). This proposal involved controlling costs through competition by health insurance plans for enrollees. Plans would be required to offer a clear, understandable, and detailed breakdown of enrollment costs and covered benefits to all individuals, allowing plan comparisons and informed purchasing decisions as well as encouraging competitively priced coverage. The existing system of tax incentives for health insurance would be eliminated. Federal-state partnerships would offer subsidies so that individuals could purchase insurance. To control cost escalation, tax credits would be made available for individuals purchasing efficient plans. These credits would allow individuals to keep the savings garnered from choosing a less costly plan. To ensure equity between rich and poor, vouchers would be available to help lower-income individuals and families.

To prevent "cherry picking" (ie, plans limiting enrollment to individuals from whom they are more likely to profit), the CCHP included rules such as open enrollment (no individual exclusions, regardless of age, sex, or prior health conditions) and flat premiums based on market-area actuarial costs (community ratings).

Enthoven's proposal was, of course, never enacted in part because it is difficult to reverse existing tax incentives. However, elements of this proposal clearly inspired the subsequent managed competition movement embodied by the 1994 Clinton health plan proposal.

Putting It All Together

In the 1970s, the majority of the developed world (the most significant exception being the United States) used public financing and administration to insure its population against health care expenses. These countries have, for the most part, used supply-sided policies to limit costs, rather than simply trusting the market (with its distortions) to restrain demand for unnecessary services. Despite evidence from the HIE that cost sharing restrains health care utilization without having an effect on the health of healthy people, consumer-directed incentives have been few and far between. When these incentives have been used, such as for prescription co-payments, methods less powerful than randomized trials have been used to study and criticize their effect on preventive care and health, especially for individuals with serious conditions.

In the United States, the managed care movement, which was a far cry from truly representing the CCHP proposal, was deemed a failure, although it did actually restrain expenditures for a brief time. Evidence-based medicine has made some important inroads with professional societies and quasi governmental organizations, devoting considerable effort to what is now known as "knowledge translation." However, the benefits of EBM on improving health and reducing inappropriate utilization have not really been evaluated,

and the effects have likely been quite small. In 1975, Hiatt was concerned with protecting the medical commons,[4] and in the 32 years since, despite all efforts, health care expenditures have continued to increase to a degree that is considered unsustainable by those who are paying the bills all over the world, although some analysts refute the view that the increase in health care costs is unsustainable.[12] But still, national health care priorities are rarely explicitly discussed, and health care could further widen its purview to address the many social determinants of disease.

Conclusions

In 2007, current health policy initiatives to reduce market distortions are directed at both the supply and demand side of the market. Pay for performance takes aim on the asymmetry of information between patients and clinicians by offering additional reimbursement to clinicians and hospitals for the provision of health care services considered appropriate and of high quality, thereby ensuring that patients receive important care that may not have been sufficiently prioritized before the program's existence.[13] But pay for performance is unlikely to be a panacea.[14]

Consumer-directed health care (CDHC) plans, variations of the "catastrophic health insurance plans" of yesterday that covered only expenses above a certain amount per year (akin to the 95% cost-sharing intervention within the HIE), take aim on the price-wedge distortion by offering less expensive premiums in combination with high deductibles, allowing patients to determine which health care services to purchase. However, there are clear distributional consequences to CDHC plans, as they favor children and healthy individuals while women and sick individuals are faced with escalating costs,[15] and it is unclear if patients will use money saved on health insurance premiums to purchase recommended preventive health care.[16] Fendrick and Chernew[17] have proposed value-based insurance design, a variation of CDHC that attempts to differentiate between effective or cost-effective health care services and those that are not. Such plans would cover effective or efficient services with a lower deductible, reserving a high deductible for the "less desirable" interventions. This proposal attempts to fix both the price-wedge and information asymmetry distortions and resembles a health care service "formulary" that likely would require substantial administrative costs and face difficulties in implementation (such as occurred in Oregon[18]). Recent evidence suggests that few employer-sponsored health care plans in the United States use value-based purchasing strategies that include incentives and programs aimed at improving quality and performance.[19]

Perhaps it is time to wave the white flag and admit that it is impossible to develop policy initiatives that correct market distortions and produce a truly efficient health care market, in which value received per dollar spent is maximized and the distribution of services is both fair and equitable for the population. This is an especially vexing problem in the United States, where the political system and social consensus is not as clear as in other developed countries where health care is considered a "merit good" (ie, every person in society has the right to health care, regardless of ability to pay). As linear programmers or economists sometimes say, perhaps this is a set of constraints without a solution. What is the difference between the market for health care and that for other goods and services? In health care, it may not be possible to satisfy all of the people, even some of the time.

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REFERENCES

1. Feldstein M. The welfare loss of excess health insurance. *J Polit Econ*. 1973; 81:251-280.
2. Detsky AS. *The Economic Foundations of National Health Policy*. Cambridge, MA: Ballinger Publishing Co; 1978.
3. Arrow KJ. Uncertainty and the welfare economics of medical care. *Am Econ Rev*. 1963;53(5):941-973.
4. Hiatt HH. Protecting the medical commons: who is responsible? *N Engl J Med*. 1975;293(5):235-241.
5. Newhouse JP; Insurance Experiment Group. *Free for All? Lessons From the RAND Health Experiment.* Cambridge, MA: Harvard University Press; 1993.
6. Newhouse JP, Manning WG, Morris CN, et al. Some interim results from a controlled trial of cost sharing in health insurance. *N Engl J Med*. 1981;305(25): 1501-1507.
7. Brook RH, Ware JE Jr, Rogers WH, et al. Does free care improve adults' health? results from a randomized controlled trial. *N Engl J Med*. 1983;309(23):1426-1434.
8. Lohr KN, Brook RH, Kamberg CJ, et al. Effect of cost-sharing on use of medically effective and less effective care. *Med Care*. 1986;24(9):S31-S38.
9. Siu AL, Sonnenberg FA, Manning WG, et al. Inappropriate use of hospitals in a randomized trial of health insurance plans. *N Engl J Med*. 1986;315(20):1259-1266.
10. Enthoven AC. Consumer-choice health plan, II: a national-health-insurance proposal based on regulated competition in the private sector. *N Engl J Med*. 1978; 298(13):709-720.
11. Hardin G. The tragedy of the commons. *Science*. 1968;162(859):1243-1248.
12. Dhalla I. Canada's health care system and the sustainability paradox. *CMAJ*. 2007;177(1):51-53.
13. Rosenthal MB, Dudley RA. Pay-for-performance: will the latest payment trend improve care? *JAMA*. 2007;297(7):740-744.
14. Wodchis WP, Ross JS, Detsky AS. Is P4P really FFS? *JAMA*. 2007;298(15): 1797-1799.
15. Woolhandler S, Himmelstein DU. Consumer directed healthcare: except for the healthy and wealthy it's unwise. *J Gen Intern Med*. 2007;22(6):879-881.
16. Ross JS, Bradley EH, Busch SH. Use of health care services by lower-income and higher-income adults. *JAMA*. 2006;295(17):2027-2036.
17. Fendrick AM, Chernew ME. Value-based insurance design: a "clinically sensitive, fiscally responsible" approach to mitigate the adverse clinical effects of high-deductible consumer-directed health plans. *J Gen Intern Med*. 2007;22(6):890-891.
18. Oberlander J, Marmor T, Jacobs L. Rationing medical care: rhetoric and reality in the Oregon Health Plan. *CMAJ*. 2001;164(11):1583-1587.
19. Rosenthal MB, Landon BE, Normand ST, Frank RG, Ahmad TS, Epstein AM. Employers' use of value-based purchasing strategies. *JAMA*. 2007;298(19):2281-2288.