

Managed Care: No Effect on the Availability of Medical Technology

During the early 1990s, health care costs grew at much slower rates than they had over the previous three decades, as shown in the figure. This declining growth rate coincided with the increasing presence of managed care plans and new reimbursement strategies in government-funded programs such as Medicare and Medicaid. Among health care researchers, the consensus is that managed care did play a role in slowing the growth of health care costs. However, it is not clear that managed care will prevent a return of rapid cost growth in the near future. Easily identified cost-cutting measures, such as reducing administrative expenses and shortening the average length of hospital stay, are quickly exhausted and, without substantial changes in health care delivery, rapid cost growth will resume.

There is also a strong consensus among researchers that technology diffusion—the development of technologies and their introduction into medical practice—is one of the strongest drivers of long-term growth in health care costs. Some researchers have argued that managed care might be able to control technology costs through capitated and

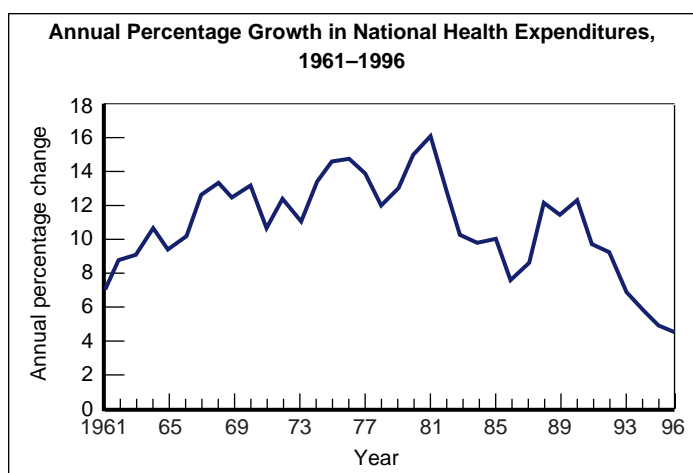
prospective payment programs. Capping the amount paid for certain treatments might provide hospitals with incentives to forgo the acquisition and use of expensive technologies except when there is a clear and established need.

If managed care organizations cannot effectively control the diffusion of technology through such mechanisms, it is unlikely that they can continue to curtail rising costs. To better understand that possibility, Joanne Spetz and Laurence Baker examined whether health maintenance organizations (HMOs) have been associated with changes in the availability of technology. The major finding of their study, *Has Managed Care Affected the Availability of Medical Technology?* is that managed care does not appear to have slowed the overall diffusion of medical technology.

Research Approach

Virtually all previous studies of technology adoption have examined individual technologies one at a time. To provide information about general technology trends, Spetz and Baker developed a technology index consisting of more than two dozen new technologies. The index includes both specific items, such as radioisotope scanners, and certain types of services, such as neonatal intensive care units. They then computed the average index values for hospitals in each of 261 metropolitan areas throughout the United States for each year from 1983 through 1993. The index value was based on how many, and which, technologies a hospital had.

To determine the effects of managed care, the researchers compared the availability of technology among hospitals in areas with a strong HMO presence to technologies among hospitals in areas where only a small percentage of the population was insured by an HMO. They also explored the relationship between hospital competition and HMO presence, because HMO effects may depend on the number of hospitals in a given area. In addition to aggregate measures of



From 1991 to 1996, health care costs rose an average of 6.8 percent a year; from 1961 to 1991, annual increases were 11.5 percent.

hospital technology, they examined the trends for several individual technologies.

Findings

There was no difference in technology availability or growth between cities where HMOs had a strong market share and cities where they had a low market share, suggesting that managed care has not slowed the overall growth of technology. In addition, it does not appear that HMOs have different effects on overall technology availability in cities with high and low levels of hospital competition.

Although the aggregate index data present a clear picture of overall technology trends, Spetz and Baker acknowledge that the index can miss important variations among individual technologies. They selected four of the technologies included in their index for individual analysis. They found that stronger HMO market share was associated with increases in the availability of open heart surgery and cardiac catheterization but decreases in the availability of diagnostic radioisotope services based in hospitals. They found no relationship for neonatal intensive care.

These results underscore two important points. First, although the aggregate index shows that HMO presence had little or no effect on technology advancement overall, there is evidence that some technologies were affected by HMO activity. Second, although the indices showed no aggregate technology effects from the relationship between HMO activity and hospital competition, there may be important relationships for some individual technologies.

Policy Discussion

Because technology is a principal factor driving the increase in health care costs, policymakers may want to focus on ways to limit technology diffusion, especially if health care costs start rising sharply once again. Limiting the availability of technology, however, will require a considerable amount of consensus building, because many consumers of health care demand high technology services.

Spetz and Baker present three possible approaches to technology management. The first is to do nothing and see if managed care and other practices of the past several years will reduce technology availability in the future. The study's findings suggest, however, that as managed care is currently practiced, it is unlikely to curtail the diffusion of technology.

Further, it is not clear that the public wants health care cost reduction to be under the control of health care organizations, many of which are strongly motivated by profit.

A second option would be to regulate the availability of new technologies and encourage the consolidation of services into fewer centers, with each producing higher volumes of services. The government could use several mechanisms to consolidate services and limit the diffusion of technologies. For example, the state could establish minimum service volumes for particular technologies and services and refuse to license facilities that do not meet volume requirements. Or policymakers could provide financial incentives to hospitals to close low-volume units, establish referral centers, and consolidate operations. However, regulatory approaches that would consolidate services can be risky because reducing the number of service providers in a region could produce monopolies for the hospitals that provide the limited technologies, and monopolies could lead to increased costs. Still, strong regulation may hold out the best hope of achieving substantial changes in technology availability.

Finally, in cases where the state is the insurer, the state could consider following the approach taken by Oregon with its Medicaid insurance plan: Policymakers could develop a priority list of services based on both impartial cost-benefit analysis and public opinion and use this list to explicitly ration care, which would affect technology purchase decisions. Although this policy is appealing because it forces the debate to be public, it has been met with numerous legal challenges. More important is the question of whether the public can be comfortable with such explicit rationing of health care for state-financed programs such as Medi-Cal.

Although the growth of health care costs has remained in a reasonable range over the past ten years, recent articles in *The New York Times* and *Wall Street Journal* report that employers are facing 10 percent increases in their HMO insurance, the highest rate increases since 1992. Moreover, some health plans experienced large losses in 1997. Kaiser Permanente, the nation's largest health plan, suffered a first-ever deficit of \$270 million. Thus, it is possible that managed care has slowed the growth of costs about as far as it can, that there will soon be a resurgence of rapidly rising health care costs, and that policymakers will need to consider alternative cost-containment policies such as those suggested above.

This research brief summarizes a report by Joanne Spetz and Laurence Baker, Has Managed Care Affected the Availability of Medical Technology? The report may be ordered by calling (800) 232-5343 [mainland U.S.] or (415) 291-4415 [Canada, Hawaii, overseas]. A copy of the full text is also available on the Internet (www.ppic.org). The Public Policy Institute of California is a private, nonprofit organization dedicated to independent, nonpartisan research on economic, social, and political issues affecting California.
