The health hazards of managed care

November 5, 2008

One possible side effect of managed health care systems is that hospitals will be reluctant to invest in costly new technologies.

One of the most significant changes in the health care market over the past decade has been the shift from the traditional insurance system to managed care. In the past, health insurers paid providers on a fee-for-services basis, with little controls over use, and allowed patients unlimited access to the providers of their choice. Managed care policies, on the other hand, place restrictions on patients and usage in order to control costs.

In the article "Is Managed Care Restraining the Adoption of Technology by Hospitals?" published in the *Journal of Health Economics*, IESE's Núria Mas and Janice Seinfeld question whether this emphasis on cost control affects patient care. They are particularly interested in finding out whether it makes hospitals less likely to buy in expensive new technologies, even though these technologies might benefit their patients.

The authors analyzed data from 5,390 U.S. hospitals regarding the adoption of 13 different technologies used in diagnostic radiology, radiation therapy and cardiac care. They focused on the period 1982-1995, when managed care expanded the most.

They slice the data various ways: hospital size, number of beds, type of ownership. A teaching hospital, for example, is expected to adopt technology earlier than a non-teaching one, given that they perform, in principle, more research and development. Some state-run hospitals may impose spending thresholds for equipment purchases, which may deter technology adoption. They also ranked the 13 technologies according to their cost-reimbursement ratios - in other words, were health organizations more likely to adopt technologies with high profitability?

Managed care explained

The structure of managed care means that primary care physicians receive a pre-established amount per insured patient, regardless of the number and type of procedures performed. Thus, hospitals face a structure of payments that encourages a lower utilization of medical care.

Patients also have less choice, as their health care covers only a predetermined network of providers. Even within the network, managed care requires patients to see a primary care physician before being referred to a specialist.

These restrictions vary according to each managed care organization. But Health Management Organizations (HMOs), under which insurance and provision of health care are fully integrated, are the most restrictive.

Bargaining power

Managed care can affect technology adoption in several ways. First, thanks to their large market share, managed care organizations have experienced a large rise in their bargaining power with hospitals, which has allowed them to negotiate lower prices with hospitals and physicians.

As the structure of payments encourages low utilization of medical care, primary care physicians act as "gatekeepers," limiting patients' access to expensive, high-tech medical procedures.

However, the bargaining power isn't only one way. Since the cost of certain medical services has gone down over the years, hospitals are also in a position to negotiate better prices with insurance companies.

Adopting new technologies, then, becomes an important bargaining tool. The more medical technologies a hospital has, and the better its reputation in the community, then the more an insurance company may feel obliged to offer patients access to this particular hospital. For this reason, hospitals may consider adopting more new technologies in order to shift the balance of power from insurance companies back to them.

Policy implications

Unfortunately, what sounds good in theory does not happen in practice. The study finds that managed health care, and HMOs in particular, negatively affects the adoption of technologies by hospitals. This finding is consistent for each of the 13 technologies examined.

The effect is even stronger for technologies that emerged in the 1990s, when managed care had become a more generalized form of health insurance.

The negative effect of managed care on technology adoption may have important policy implications. For one thing, managed care may slow down health care cost growth. The results indicate that managed care is affecting the availability of health care technologies by changing the incentives associated with their acquisition. Though managed care may be contributing some cost savings in the health care market, it does so by limiting the availability of technologies.

While these results suggest that managed care may be negatively affecting the quality of patient care by limiting the availability of technologies, further research is needed to understand the true effects of managed care on patient care. It may be the case that managed care is only eliminating the duplication of technologies, increasing the use of existing machines or procedures.

The authors suggest that further work should focus on understanding the adoption process for the hospital, looking at each technology separately and considering the aspects that may affect the hospital's decision to adopt such a technology.