The Behavior of Patients & Doctors Incentives, Quality, & Prices

By Renu Gehring and Rajiv Sharma

The tracking of patient information, medical errors, rapidly increasing expenditures, and conflicts of interest between providers and patients are common healthcare problems in developed countries. However, in the US, healthcare expenditures are a larger proportion of national income than in any other country in the world—projected to top $1.9 trillion in 2005. High expenditures make our problems seem more acute than other countries' and this requires us to ask: Why do we spend so much and what do we obtain for our healthcare dollars?

Public discussion of this topic has often focused on the cost of treating the uninsured and ways to reduce the price of prescription drugs. Our fragmented, third-party payer system is also sometimes the focus of media attention. While there are many important factors affecting quality and cost in healthcare, in this article we have chosen to explain why healthcare in the US is expensive and then examine how a simple system of incentives, skillfully directed at both providers and patients within the current payment structure, can play a major role in the financing and delivery of more effective, affordable healthcare.

Affordability

First, we would like to briefly discuss the concept of affordability—a concept that is not well-defined. Policy discussions of health spending often center on the idea that expenditures are growing at an unaffordable rate. One plausible definition of affordability is that increases in health spending are affordable if they do not force a reduction in spending on goods and services not related to health. Using this definition, an analysis by economists Chernew, Hirth, and Cutler shows that substantial increases in health spending are still affordable in American society as a whole, at least for the next several decades.

More important than the question of whether increases in spending are affordable is whether such increases are desirable—Do we get good value for money spent on healthcare? A growing body of economic literature argues that Americans value improvements in longevity and health far more than the associated financial costs. If future improvements in longevity and health are comparable to those achieved in recent decades, people will continue to support increased spending on healthcare at the cost of other goods and services.

➤Higher health spending in the US can be attributed simply to higher prices—for example, in the US, we pay higher wages to health workers than other developed countries pay.

Why is healthcare in the US so expensive?

➤The main reason healthcare is expensive is surprisingly simple: Healthcare requires a lot of highly skilled labor, goods, and infrastructure to produce. Economists call these inputs, and in healthcare the inputs are very expensive. In an analysis of the differences in health spending in developed countries, a prominent political economist at Princeton, Uwe Reinhardt, and his colleagues found that much of the higher health spending in the US can be attributed simply to higher prices—for example, in the US, we pay higher wages to health workers than other developed countries pay.

The fact that brand name drugs cost more in America than elsewhere is well known, but with drug spending accounting for just about a tenth of health spending, there is more to soaring prices than paying more for pills. Stories of high-cost diagnostic tests and technical procedures also receive a great deal of coverage. What is less well-known, and seldom discussed, is that most health spending actually goes towards the cost of labor.

Hospitals are the most capital-intensive segment of health spending. Health economists attribute close to 75 percent of these costs to labor, when professional fees and local services are taken into account. The proportion of costs attributable to labor is even higher in private physician and dental offices.

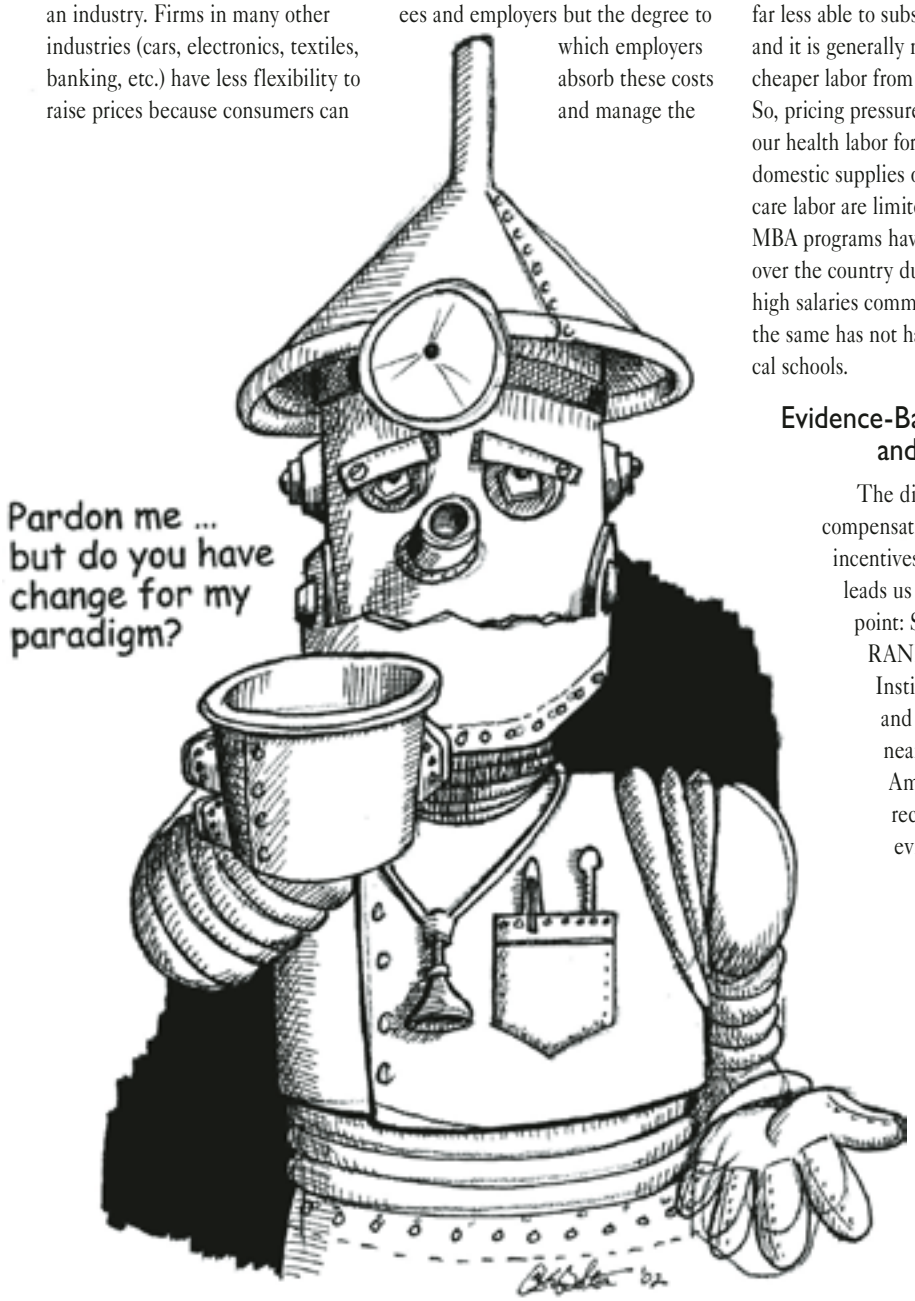
Part of the reason health spending is difficult to restrain in the US is that reducing the cost of

labor will invariably result in either layoffs or reduced incomes for health workers. Only a rare politician—or economist—recommends pay cuts or layoffs for physicians, nurses, or medical technicians. Clearly, medical professionals do not wish to lose jobs or income any more than insurance or pharmaceutical companies desire to reduce their profits.

Healthcare employers are as ruthless as employers in other sectors. The key difference has to do with where pricing power lies in an industry. Firms in many other industries (cars, electronics, textiles, banking, etc.) have less flexibility to raise prices because consumers can switch to a competitor. In healthcare, the consumers (patients) do not care much about price because of insurance—and in the US private insurance is usually acquired through an employer.

When faced with financial difficulty, other industries typically cut costs, often hurting employees in the process. In healthcare, however, providers are often able to pass on higher prices to whoever pays for insurance. The cost of such payments is actually divided between employees and employers but the degree to which employers absorb these costs and manage the purchase of insurance tends to psychologically insulate consumers from higher prices.

Another aspect of the difference between the healthcare industry and other segments of the economy has to do with the extent to which labor can be substituted with technology or cheaper labor. In banking, for example, most of us have not had a face-to-face interaction with a human teller in several months. We can make do with ATMs, phone or online banking. In healthcare, machines are far less able to substitute for people and it is generally not possible to use cheaper labor from other countries. So, pricing pressure is reduced on our health labor force. Finally, even domestic supplies of trained healthcare labor are limited. While plenty of MBA programs have sprouted up all over the country due to the relatively high salaries commanded by MBAs, the same has not happened to medical schools.



Evidence-Based Medicine and Costs

The discussion of compensation systems and incentives unavoidably leads us to an important point: Studies by the RAND Corporation, the Institute of Medicine, and others show that nearly half of the time Americans do not receive adequate or evidence-based care.

The experiences of companies such as General Electric, and of many health plans, show that providing bonus payments to physicians for meeting important treatment criteria can reduce costs and improve outcomes even for complex conditions such as diabetes and heart disease.

There is research that indicates this happens, in part, because employers tend to change health insurance providers every few years and workers frequently move between employers. These factors have meant that insurance companies and providers have sometimes had little incentive to make an investment in preventive medicine. Long term gains from the investment in prevention are often realized by competitors. This is an example of how misaligned incentives can complicate the environment in which patients and physicians interact. Some providers and insurance companies in Oregon, such as Providence and Regency Blue Cross, are now offering programs specifically designed for preventive care in the management of chronic diseases. Such

Incentive to Heal: Pay-for-Performance

Pay-for-performance is a form of compensation that encourages doctors to use well-established, evidenced-based practices for the management of disease. One of the main controversies surrounding pay-for-performance is whether or not there is a business case for insurers and providers for preventing disease and improving the quality of healthcare. As strange as it may seem to those of us who are just patients, this is an issue of costs that is seriously debated by policymakers, executives of major corporations, and healthcare insurers.

GE, Kaiser Permanente, and other companies are experimenting with pay-for-performance for chronic conditions. Dr. Robert Galvin, head of global healthcare at General Electric, believes that GE has made a business case for investing in quality care through utilizing established effective procedures for heart disease and diabetes The Pursuit of Perfection project in Whatcom County Washington, which Mary Minniti describes in her article *The Whatcom County Experience* in this edition of *Oregon's Future* also uses these two conditions as the targets for their experiment with improving quality using evidence-based procedures. Medicare has also created pilot programs to determine pay-for-performance's effectiveness of reducing costs.

An accessible source for background information on this controversial subject is David Cutler's book **Your Money Or Your Life: Strong Medicine For America's Health Care System.** In an excellent article on David Cutler's book, Roger Lowenstein in the *New York Times* reports that GE, with its closed and stable system of long-term employees, has found that properly treating diabetics saves GE $350 a year per patient, even before factoring in the long-term cost of leaving the disease untreated.

Integrated Healthcare Association is coordinating a pay-for-performance experiment that includes 225 medical groups in California. The health plans are voluntarily paying for quality measures relating to 14 aspects of care including providing electronic technology. The idea is to test long-term results of pay-for-performance within a large group of patients who do not wander in and out of the project.

This idea of compensation for superior performance implies a way of tracking performance, a task dependent upon reliable and universal information technology. Kaiser Permanente, an HMO, has invested heavily in information technology. Proponents of pay-for-performance expect pay for performance to encourage hospitals and clinics to invest in information technology—a subject covered by Bill Hersh in previous issues of *Oregon's Future.* GE is experimenting with paying doctors' offices bonuses for investing in information technology as are health plans in the large project run by Integrated Health Plans. Proponents point out that an appropriate use of information technology will help physicians track their own performance.

As Sharma and Gehring indicate in *The Behavior of Patients and Doctors,* there is evidence that the business case for quality (or incentives) is weakened when one insurer reaps the rewards of another's investment in quality care; this happens when people switch insurers due to employment changes or employers switch plans. According to providers, such a scenario inevitably leads to physicians and hospitals not getting paid to provide the highest quality care. There is significant debate about this claim, the viability of pay-for-performance, and the need to realign incentives for better patient care, so we have included a list of references that explore the business case for quality in our employer-based healthcare system. These particular studies and articles point to structural incentives that currently discourage our healthcare system from providing the highest quality, effective care to patients.

Jay Hutchins

Casalino, Lawrence P; Markets and Medicine: Barriers to creating a "business case for quality"; *Perspectives in Biology and Medicine* 46.1 (2003):38-51.

Coye, MJ, No Toyotas in Health Care: Why Medical Care Has Not Evolved to Meet Patients' Needs; *Health Affairs* 20(6): 44. November/December 2001

The business case for quality: case studies and an analysis.

Leatherman et al; Health Affairs 2003; J Occup. Environ Med 2001. Special Issue on Health, Productivity and *Occupational Medicine,* 43 (1).

Baker, DW, D Einstadter, C Thomas, et al; The effect of publicly reporting hospital performance on market share and risk-adjusted mortality at high-mortality hospitals; *Medical Care* 41(6), pp. 729-740 June 2003.

Americans as Health Care Consumers: The Role of Quality Information. Highlights of a National Survey. Kaiser Family Foundation and the Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/qual/kffhigh.htm

programs represent approaches to addressing the conflict of interest that still exists between providers, patients and insurance companies. Companies, such as Perdue Farms, Sprint, Pitney Bowes, and Quad, and others have addressed the issue and successfully reduced costs and improved quality of care by creating in-house clinics to directly provide primary and preventive healthcare to employees and their dependents.

This brings us to the two factors of importance—from an economist's point of view—for understanding the issue of incentives in healthcare.

The first is that consumers are less prudent about spending their insurer's dollars than they would be when paying out of their own pocket.

The second is that consumers rely on the expertise of providers to determine what healthcare they require—meaning providers may recommend treatments that yield greater financial rewards for themselves, rather than better financial and health outcomes for their patients.

Patient Incentives

Many of the existing features of insurance plans are attempts to alter or create incentives for patients. Although high co-payments, deductibles, and co-insurance tend to encourage people to use less healthcare, some incentives to overuse care will remain as long as any part of the service is paid for by someone else. The Oregon Health Plan (OHP) addressed this problem with a form of rationing or external limit on procedures and drugs.

Requiring patients to share costs of treatment can raise another predicament: Cost-sharing, in the form of co-pays and other incentives, may discourage people from getting necessary and preventive care. Pitney Bowes is experimenting with reducing employee co-payments for diabetes and asthma drugs within its in-house primary care clinics. As a result emergency-room visits and hospital stays for patients with these diseases has fallen.

So, the policy challenge is to design a system of co-payments, deductibles, and co-insurance that balances the level of care needed to prevent the deterioration of people's health and wealth—while avoiding the costs of care that yields few benefits, and to do this in a way that pays providers fairly. Such a system would ideally combine high out-of-pocket costs for services that have questionable benefits with lower out-of-pocket costs for services known to be evidence-based and cost-effective.

Provider Incentives

Several payment mechanisms introduce provider biases towards certain treatment decisions. When health plans pay providers on the basis of costs incurred—the so called fee-for-service or cost-plus system—we encourage care professionals and hospitals to provide additional services. Sometimes these services provide little or no health benefits.

The following three proposals were designed to counterbalance fee-for-service with a single payment for a patient's care or for treatment of a specific condition.

Capitation: Under capitation, providers receive a fixed sum for each patient under their care. Capitation is the payment system used by Kaiser Permanente and some other health maintenance organizations (HMOs).

Diagnosis-related group (DRG): Used for the services hospitals provide. In this approach, hospitals are paid a set fee for services related to a specific condition—this payment does not include physicians' compensation, which is billed separately.

Fee-for-Condition: Advocated in Oregon by Dr. David Sanders and Dr. Albert Dipiero of HealthOregon. It compensates doctors more directly, based on a lump sum determined by the illness of each patient treated. Sanders and Dipiero believe this system will encourage preventive medicine and innovations that will reduce costs.

The drawback to capitation, DRG, and fee-for-condition is that providers benefit financially by skimping on services to increase retained profits— the reverse of what we observe in fee-for-service incentives. All of these systems also create incentives for providers to select patients who are most profitable— a process called "cherry-picking"—and to avoid those who are most difficult or costly to treat—"dumping."

Pay-for-Measurement

AT PRESENT, NO SYSTEMATIC PROCESS EXISTS TO EVALUATE THE EFFICACY AND COST EFFECTIVENESS OF EMERGING THERAPIES.

As a well-worn management adage puts it, you can only control what you can measure. Currently, the FDA approval process for new drugs, which has been the focus of much recent criticism, is one of the few examples in our healthcare system of seeking evidence on new therapies before adopting them. New surgical techniques, for example, face no comparable requirements before they are adopted. This may be changing. The Centers for Medicare and Medicaid Services (CMS), the agency that administers the Medicare program, has recently proposed changes that link some coverage decisions to the collection of clinical data. This proposal could potentially become a major force towards improving measurement in the healthcare system.

Over time, therapies that have favorable medical and financial outcomes will be adopted, and therapies that have not undergone evaluation will comprise a smaller proportion of healthcare services. While aggressively evaluating existing therapies for effectiveness makes sense, it may prompt greater resistance to reforms by providers who have invested in threatened therapies.

Requiring evaluation of health and cost-effectiveness before therapies are widely adopted can alleviate some of the current bias towards investment in new technologies that are profitable for providers, but may not be the best for our society as a whole. This idea that our healthcare system will pay-for-measurement (pay for therapies that have demonstrated measurable results) can transform the evolution of healthcare if applied to newly emerging therapies.

Rajiv Sharma

Performance-based Incentives

In our view, a pay-for-performance model should be used to create incentives for providers to adopt evidence-based practices in areas where a broad consensus exists on the optimal clinical approaches to disease management. Pay-for-performance could be integrated into any of the systems already in use. It provides additional compensation to providers when they meet specified performance criteria based on clinical practice guidelines. When used as intended, pay-for-performance effectively increases quality on key aspects of clinical practice.

➤The experiences of companies such as General Electric, and of many health plans, show that providing bonus payments to physicians for meeting important treatment criteria can reduce costs and improve outcomes even for complex conditions such as diabetes and heart disease.

Unintended consequences likely to arise with pay-for-performance include provider reluctance to serve patients who are unwilling or unable to adhere to a treatment regimen.

From a policy perspective, no payment mechanism alone will solve the conflict of interests over incentives. That is, none of these payment mechanisms will simultaneously block the tendency of providers to perform unnecessary services as well as encourage providers to treat the most difficult and highest cost patients. A hybrid system is likely to be the best answer; one in which providers receive a condition or diagnosis-based payment for most patients, with fractional cost-based reimbursement for the most resource-intensive patients, along with bonus compensation for superior performance.

The additional revenues providers receive from pay-for-performance can partly or wholly offset some of the transition costs, such as for training or the new equipment required for adopting new practices. It could also encourage providers to better engage patients in their own treatment—and in this way foster investment in improved information infrastructure.

It is possible that once specific performance criteria have become part of normal clinical practice, then the extra compensation could be phased out. We could then shift incentives to focus on new areas of our clinical practice that need improvement. In this scenario, pay-for-performance would serve as an instrument for continuously improving quality in healthcare.

Conclusion

Still, one question remains: Who pays? The burden of increased spending will be spread unevenly among corporate, government, and individual payers. The increases in health spending desired by society present an overwhelming fiscal challenge to state and federal governments, and could crowd out spending on other publicly-provided services.

In the private sector, the United Auto Workers have successfully negotiated for auto makers to provide first-rate health coverage at low cost to its members, who have little financial incentive to adopt healthier lifestyle behaviors. The cost of this type of healthcare now adds approximately $1500 to the cost of a Ford or General Motors built car. In the long term, GM and Ford may not be able to continue paying for this coverage and remain competitive in the marketplace.

Indeed, employers who have been the conduit and source for health insurance for a majority of Americans are in many cases unwilling or unable to continue such costly obligations. As already mentioned, a few companies have successfully reduced costs by creating in-house clinics to directly provide primary and preventive healthcare to employees and their dependents. However, many corporations have curtailed health insurance coverage, particularly for retirees.

There is a financial conflict of interest among consumers, providers, employers, and payers within our healthcare system and there is no perfect solution to creating incentives to address the problems. However, the fact that we can not find perfect solutions is no reason for inaction—there is plenty of room for improvement, including using pay-for-performance in a system that currently rewards too little investment in improved care.

Renu Gehring is managing partner at AhCE3: Analysis for Health Care Effectiveness, Efficiency and Excellence, LLP. She has a graduate degree in economics from Brown University and several years of consulting, research, and corporate experience. In addition to working for several economic, research and marketing consulting companies, she has worked for and consulted with corporations such as Fidelity Investments, Scudder Investments, and Nike Inc. Her expertise includes statistical analysis, economic valuation, as well as analysis, and reporting of large and complicated data sets.

Rajiv Sharma is a health economist at Portland State University. He has a Ph.D. in economics from the University of Florida. His current research interests include the valuation of changes in life and health, and techniques for the evaluation of medical and health interventions including cost-effectiveness and cost-utility analysis. He has led or consulted with projects funded by the World Bank, Forfas (the Irish policy advisory board for enterprise, trade, science, technology and innovation), the Human Resources and Services Administration (US Department of Health and Human Services), the Oregon Health and Science University Foundation, and the Lasker Foundation. His publications during the last year include articles in The American Journal of Public Health, and the Journal of Health Economics.