Increasing Transparency in the Pricing of Health Care Services and Pharmaceuticals

The rising cost of health care represents the nation's single most important long-term fiscal challenge. This brief explores whether increased transparency about prices for specific health care services and pharmaceuticals would help to temper the rapid growth in costs. The answer is unclear because evidence can be marshaled on both sides of the issue.

Some observers believe that if individuals know the prices of health care services, they are more likely to seek out less expensive providers or treatments and to question how effective the care they are purchasing is likely to be.

But several factors may limit the effectiveness of this type of transparency in cutting health care expenditures. On the consumer side, more than 80 percent of the population is covered by some form of health insurance, which insulates people from the full price of the health care they consume, limiting their incentive to compare prices. Doctors and other health professionals often direct decisions about what services to buy from whom, as individuals may have little information on the care they need or the quality or value of that care. Moreover, for insured and uninsured people alike, awareness of prices will make little difference in emergency situations or in the relatively small number of cases that account for a disproportionate share of overall health care spending.

On the provider side, more transparency would make information about the prices that hospitals, physicians, and drug companies charge insurers more visible, but whether such disclosure would lead to higher or lower prices for consumers on average is unclear and depends on the nature of competition in the relevant market. The markets for some health care services are highly concentrated, so increasing transparency in such markets could lead to higher, rather than lower, prices because higher prices are easier to maintain when the prices charged by each provider involved can be observed by all of the others. Whatever the effect on average prices, more transparent prices would probably reduce the range of prices.

Questions about transparency in health care costs extend beyond the prices for specific services and pharmaceuticals. Workers pay for employment-based health insurance through reduced take-home pay, but those costs may not be evident to many of them. A greater awareness of the total costs of health care and who ultimately bears them might generate increased demand for efficiency in that sector.

What Is Price Transparency?
The price of a particular health care service is not uniform among providers or payers. Although a provider may have a list price for a particular service, the actual transaction price for that service varies widely, depending on the type of payer—individuals, governments, or insurance companies. Moreover, competing providers may collect different payments from different payers or types of payers. Therefore, in health care markets, list prices are often higher than what the provider accepts as payment in full from a particular payer.

With so many different prices applicable to a particular health care service, it is perhaps not surprising that a consistent definition of the term “price transparency” is elusive. Publication of list prices has at times been referred to as transparency, but the term could also be used to describe insurers’ efforts to make available to their
subscribers the rates that they have negotiated with physicians and hospitals. A more expansive definition of transparency would make those rates available to anyone and not limit them to subscribers. Alternatively, a government agency or other entity could report average prices. Certainly, those different concepts of transparency may elicit different responses from consumers and providers.

Who Buys and Sells Health Care and at What Prices?
There are three primary payers for health care: individuals, governments, and private insurers. When an individual decides to seek care, in most cases payments from government insurance, such as Medicare or Medicaid, or from a private health insurer supplement the person’s out-of-pocket spending. The 16 percent of individuals who lack health insurance face all of the charges for the health care they receive, though some may receive uncompensated care (either as charity or as a debt written off by the provider), reducing their out-of-pocket spending.

Health care providers are on the other side of that transaction. There are many types of providers: hospitals, physicians, pharmaceutical companies, laboratories, imaging centers for such services as MRIs (magnetic resonance images) and X-rays, physical therapists, nursing homes, and others. This brief focuses on the three largest components of health care spending—hospital care, services by physicians, and prescription drugs—which together accounted for about two-thirds of national health expenditures in 2006.1

For each good or service it delivers, a hospital or physician practice may bill a patient (or his or her insurer) according to its list prices. However, most patients’ accounts are settled for a smaller amount, with the actual transaction price depending on the individual’s insurance arrangement.2 The rates for Medicare and Medicaid patients are set unilaterally by the federal and state governments, respectively, and are frequently publicly available.3 Those payments are typically lower than the rates providers accept from private health insurers, with Medicare’s generally exceeding Medicaid’s.

For an individual with commercial health insurance, the price a provider typically accepts as payment in full is the result of a contract negotiated between the insurer and the provider. Such contracts usually require that the prices they set be kept confidential. Some insurers are beginning to make many of those prices accessible to their subscribers, which may make confidentiality more difficult to maintain. For prescription drugs, the system of charges and rebates that determines final prices to consumers and their insurers is particularly complex.4

An individual without insurance or someone whose insurance company has not reached an agreement with a provider is usually responsible for paying the provider’s list price. Such prices are not usually bound by the confidentiality that governs the prices negotiated between providers and health plans, but they may still not be accessible or comprehensible to people.

What Information on Prices Is Available?
State governments, state-level industry associations, and various private organizations have started to publish prices for some health care services, usually hospital services. The usefulness of that information to individuals is likely to vary, both with the type of service they require (emergency care as opposed to treatment planned in advance) and with their health insurance status.

Programs in Wisconsin and California present information that is typical of that offered by many state governments and industry associations.5 The Wisconsin

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2. Hospitals in Maryland are an exception. The state requires the same price for all payers. See Maryland Health Services Cost Review Commission, Maryland Hospital Pricing Guide (December 2006).
3. Although Medicare’s and Medicaid’s payment rates are public, they are typically set using coding systems and formulas that may not be easily understood by the average patient. For Medicare’s fee schedules, see www.cms.hhs.gov/FeeScheduleGenInfo or www.cms.hhs.gov/ProsMedicareFeeSvcPmrGen. Medicaid’s fee schedules differ by state. See, for example, Wisconsin’s: dhfs.wisconsin.gov/medicaid4/maxfees/maxfee.htm.
Hospital Association collects information from its members on their average and median charges to patients for a number of procedures. Since 2005, California has required hospitals to submit to the state and to make available to patients a copy of their list prices for all goods and services. Such information may be of only limited usefulness to people, though. The information made available in Wisconsin and California includes only hospitals’ charges and so leaves out other important charges. Perhaps the most important exclusion is the price of the services provided by physicians—surgeons, anesthesiologists, and others—during a hospital stay. In addition, individuals with health insurance coverage may face very different total prices and out-of-pocket expenses if their insurer has negotiated discounted rates. Rankings based on list prices may not hold for the prices insurers have negotiated.

A New Hampshire initiative includes some of the information that others omit. The state’s Insurance Department collects detailed information from insurance claims data and, for each of the state’s largest health insurers, reports estimates of total prices and out-of-pocket expenses for an entire episode of care, including the prices paid for physicians’ services.6

The private sector is also reporting data on the price of hospital care, an indication that some firms believe consumers will value comparison shopping for health care. Those private ventures are more varied, and each example takes a different approach. Vimo, a private firm that provides information about health insurance providers, reports both a hospital’s list prices for procedures and its own estimate of the range of negotiated rates the hospital has agreed to with insurers. In Minnesota, Carol, another private firm, reports list prices from health care providers that have paid a fee to participate. However, those list prices are for provider-designed bundles of services that may not match insurers’ coverage or be easily compared. Insurers have also begun to provide pricing information to their subscribers.7

What Are the Potential Benefits of Price Transparency?

The primary argument in favor of more transparent pricing for specific health care services is that better information on prices will lead consumers to use health care more efficiently.8 For some individuals, the information could allow them to consider various providers to find the one offering the lowest price. Other people may opt not to seek care for a particular ailment, deciding that their condition is not serious enough to warrant the expense or that the promise of a remedy is not likely enough to justify the price of treatment. Still others may use the information to compare the prices of alternative treatments—a course of physical therapy versus surgery, for example.

People who do not have health insurance and those whose insurance arrangements require substantial out-of-pocket expenditures through large deductibles or other cost sharing are more likely to adjust their health care spending in response to prices. In particular, individuals enrolled in consumer-directed health plans, which combine a high-deductible insurance policy with tax-sheltered accounts to finance out-of-pocket payments, would probably find price transparency more useful than individuals with policies involving HMOs (health maintenance organizations) or PPOs (preferred provider organizations), for which cost sharing may involve only a fixed-dollar copayment.9 Although enrollment in those high-deductible policies has been growing since health reimbursement accounts (HRAs) and health savings accounts (HSAs) were approved in 2002 and 2003, respectively, those plans still represent a small share of the market. According to the Congressional Budget Office’s (CBO’s) estimates, by January 2006, approximately 6 million people were enrolled in insurance policies eligible for HRAs or HSAs, compared with the 180 million people under age 65 who had private health insurance coverage that year.10

8. See the statement of Regina E. Herzlinger, Professor of Business Administration, Harvard Business School, before the Subcommittee on Health of the House Committee on Ways and Means (July 18, 2006).
9. Once an individual’s health care spending exceeds that high deductible, the incentive to shop on the basis of price falls.
For people with a greater degree of cost sharing in their health insurance plans, more transparent pricing might reduce their consumption of health care or redirect it to less costly choices. The RAND Health Insurance Experiment, conducted in the 1970s and 1980s, showed that individuals purchase less health care when faced with greater cost sharing and that the reduction in health care services had little impact on their health. Although that study did not consider the question of price transparency, its results suggest that individuals who pay for health care on their own are responsive to out-of-pocket payments. At the same time, the evidence indicated that the primary effect was on whether individuals sought care for a medical condition; once they went to a doctor, subsequent spending per person was similar in the different cost-sharing arrangements.

Researchers have studied the effects of price transparency in markets outside of health care and found that individuals alter their purchasing behavior when there is a change in the price transparency of a good they already consume and for which they pay the full price. For example, in one study, drivers in the United States were more likely to cut their use of toll roads when the price of a cash toll was posted than when the road had an electronic transponder toll payment system like E-ZPass, which might not quote the price of an individual toll. Experiments with real-time pricing of electricity showed that French retail customers shifted their use from higher- to lower-priced time periods.

However, consumption of specific health care services might not show a similar response to more transparent pricing. Insured individuals generally pay only a portion of the total price and may not understand their payment responsibilities, so their behavior might not match that of consumers who face the full price of a good. In some instances, moreover, there may be only one reliable course of treatment available. Finally, many purchases of health care cannot be planned ahead of time and shifted to lower-priced providers; in an emergency, people generally will go to the nearest available provider.

### What Are the Potential Disadvantages of Price Transparency?

The markets for some health care services are highly concentrated, and increasing transparency in such markets could lead to higher, rather than lower, prices. In markets where only a small number of firms operate, increased transparency would make it easier for those firms to observe the prices charged by their rivals, which could lead to reduced competition between them. In health care, reduced competition might result if more transparent pricing revealed the prices negotiated between insurers and providers, especially in concentrated markets.

### What Factors Might Lead to Higher Prices?

For the most part, the market for health care services is local. An individual choosing a physician or a hospital for care will, in general, be choosing among local providers, who may compete with one another. The degree of competition varies a great deal from one market to the next within the United States. Within a local area, the competitive landscape is also likely to differ across types of providers. For example, in a city with only one or two hospitals, there may still be extensive competition among many primary care physicians.

More concentrated markets with fewer sellers are more likely to be conducive to the sort of coordination that would produce higher prices. In those instances, price

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14. LASIK (laser-assisted in situ keratomileusis), cosmetic surgery, and dental care are not typically covered by insurance, but one study investigating price comparison shopping for them found limited to no shopping on that basis for those services, largely because of concerns about quality; referrals were more important. See Ha T. Tu and Jessica May, “Self-Pay Markets in Health Care: Consumer Nirvana or Caveat Emptor?” *Health Affairs*, WebExclusive, vol. 26, no. 2 (February 6, 2007), pp. w217–w226.

15. Exceptions include patients who have unusual illnesses or who travel to a marquee clinic or physician for treatment.

16. However, the level of competition in the hospital market is likely to have an impact on the level of competition in services by physicians, because any physician entering the market will typically seek privileges at one of the local hospitals.

transparency makes it easy to observe a competitor’s prices and to respond to them. The incentive to price aggressively is reduced because a firm considering offering a lower price to gain more business knows that its few competitors could quickly observe that action and cut their prices to deny the firm its advantage or even to punish the firm.

Although economists might agree about the potential for such effects to arise, there is little empirical evidence about their extent. Studies of laws requiring greater transparency in other concentrated industries suggest that more transparency resulted in higher prices. Two studies have examined a change in a U.S. law in the late 1980s that required railroads to disclose some of their contract terms with grain shippers. One found that rail rates increased once the requirement took effect. The other study found that rail rates rose on routes without water competition but fell on routes where barges could more easily substitute. Thus, both studies suggest that railroads took advantage of the requirement for transparency to raise rates when they could observe what their competitors in concentrated markets were charging. Subsequent researchers, however, have raised concerns about the reliability of the data the studies used.

A study of the Danish concrete industry that examined prices following the antitrust authority’s decision to publish firms’ transaction prices receives frequent mention in any discussion of increasing price transparency. The authors found that the average price of concrete rose between 15 percent and 20 percent following the publication of prices and concluded that the dissemination of price information empowered firms to practice tacit collusion. Observing their rivals’ prices made it possible for firms to charge higher prices without fear of being undercut. However, that result was based on a small sample of plants over a short period.

Hospital Markets. Hospital markets in the United States have grown steadily more concentrated, leaving some hospitals with the potential for substantial market power. One study counts an average of 58 consolidations each year between 1990 and 2003 in the United States. Even without transparency, as a local market grows more concentrated, its hospitals or hospital systems may gain the power to demand higher payment rates from insurers simply because there are fewer choices. Alternatively, some consolidations could produce economies of scale or scope that lower the costs to supply care. The type of hospital seems not to matter, as studies indicate that the pricing behavior and consolidation patterns for nonprofit hospitals are similar to those of for-profit hospitals.

Even when they do not know the precise rates at which competitors are paid, hospitals may press for higher rates to be more in line with their competition. One study recounts that an effort by Blue Cross of California to convey information about hospital prices to its PPO enrollees by marking the lowest-priced hospitals with “$” and the highest-priced with “$$$$$” was halted in part because so many low-priced hospitals pushed for higher prices. It is not clear, however, whether that pressure was the result simply of efforts to seek greater profits or a reaction out of fear that being pegged as low-priced would also suggest low-quality care.

Physician Markets. The markets for physicians’ services are often far less concentrated than hospital markets, reducing the likelihood that greater transparency would lead to higher prices. Though entry to the market is certainly expensive (training, licensing, and establishing a practice are all costly), the barriers are much lower than

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for hospitals. Except in some specialty markets, individual physicians therefore have little or no market power to exercise in their negotiations with health insurers. In fact, there have been numerous cases of physicians working together, allegedly anticompetitively, to obtain better contract terms from insurers, and of insurers agreeing to preferential rates for sizable local groups of physicians.25 With so many competitors to observe, individual physicians would be less likely than hospitals to be able to use more transparent pricing successfully to demand higher payments from health insurers. Conversely, a lack of price transparency can be a problem for physicians because it leaves them unsure of the payment amount they can expect for a service.

**Prescription Drug Markets.** Spending on prescription drugs totaled $217 billion in 2006, or 11 percent of health expenditures.26 Brand-name pharmaceuticals that are sheltered from competition under patent protection may enjoy substantial market power and even monopoly power to the extent that no alternative drugs effectively treat the same condition. Even those drugs with competition from generic alternatives are likely to have only a limited number of rivals. For individuals with prescription drug insurance coverage, the final price that they and their insurer together pay for a prescription drug is significantly influenced by the rebate the manufacturer grants to the health insurer or to the pharmacy benefit manager (PBM) acting as the insurer’s agent.27 The insurer or PBM negotiates those discounts on the basis of a volume of business or a market share that it guarantees for the manufacturer or on the preferred status that it grants to a range of the manufacturer’s products. CBO’s past work has noted that requiring the disclosure of discounts made to prescription drug plans in the Medicare program could set in place conditions for tacit collusion, as manufacturers would find it more difficult to set prices below their competitors’ without detection.28

There are a number of different benchmarks for drug prices, but many are based on list prices and do not take into account the discounts and rebates that manufacturers grant insurers and PBMs. In conjunction with a change in the rules governing Medicaid’s reimbursement for prescription drugs, the Centers for Medicare and Medicaid Services was to collect and publish what is termed the average manufacturer price (AMP) for prescription drugs starting in 2007, but legal action has delayed the endeavor.29 Though revealing the AMP would not allow competitors to observe their rivals’ prices directly, it could alter the balance of bargaining power between payers and manufacturers in negotiating discounts and move the average price higher or lower.

**What Factors Might Prevent Higher Prices?**

Though many health care providers have significant market power, they do not operate unchecked. Just as providers attempt to use their market power to press for higher prices, insurers attempt to use their market power to push prices down. In addition to that market discipline, antitrust authorities may intervene if they suspect anticompetitive behavior.

**Health Insurers.** Insurance—either public or private—is the primary payer for most purchases of health care in the United States. The prices paid by Medicare and Medicaid are set by regulators and are generally publicly available and therefore may serve as a benchmark for negotiations between private insurers and health care providers. With transparency, what happened to those negotiated prices would depend in large part on whether providers or insurers had more bargaining power.

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27. Individuals without insurance coverage for prescription drugs pay the entire retail price themselves, making the price transparent at the point of purchase. There may be substantial variation in prices among pharmacies, though it may be difficult to uncover those differences. See Ha T. Tu and Catherine G. Corey, *State Prescription Drug Price Web Sites: How Useful to Consumers?* Research Brief No. 1 (Washington, D.C.: Center for Studying Health System Change, February 2008).


Health insurance plans have substantial bargaining power in their negotiations with health care providers. Larger health insurers are able to extract larger discounts from providers, and, like hospital markets, the health insurance market has grown more concentrated. The American Medical Association reports that two large private health insurance companies in the United States—WellPoint Inc. and UnitedHealth Group—now cover 67 million people, or more than one-third of the commercial health insurance market, following numerous acquisitions between 2000 and 2007. Another study found that the largest commercial insurer controlled at least one-third of the market in 38 states and more than half the market in 16 states in 2002 and 2003. The largest three plans controlled more than 50 percent of the market in all but three states. The potential for other health insurers to enter a market may exert some competitive pressure on the existing insurers, but the opportunity for entry may be limited. According to that same analysis, the four largest national health plans (along with regional Blue Cross and Blue Shield plans) already operate in most states, so, in addition to regulatory barriers, new insurers could face difficulties in building networks of providers and subscribers.

Although it is difficult to know how concentration in the health insurance market might alter the effects of transparency, one study has found that that concentration can counteract aspects of concentration in hospital markets. In markets where there was more competition between HMOs—and each one therefore had less market power to exercise in negotiating with hospitals—a hospital merger led to higher health insurance premiums. Where there was little competition between HMOs, however, a hospital merger had no effect on premiums. There, an HMO’s market power could counteract the hospitals’ increase in market power to prevent higher prices. On the whole, although both markets have grown more concentrated, one analyst concludes that hospitals’ bargaining position stands to benefit more from improved transparency than insurers’ bargaining position does.

Antitrust Authorities. In an effort to prevent health care firms from coordinating to raise prices, federal antitrust authorities have issued guidelines to describe a “safety zone” for the dissemination of fee information that will be available to competing providers. To stay in the safety zone and avoid scrutiny by antitrust authorities, collective disclosure of fee information must meet three requirements: The information must be collected by a third party, any information that is available to competitors must be at least three months old, and the information must be collected from enough sources so that no individual provider’s price may be identified.

That last requirement would seem to prevent the public release of the prices negotiated between providers and insurers, but it does not preclude a provider or an insurer, acting independently, from disclosing those prices to its patients or subscribers. The health insurer Aetna has initiated such a program in a number of the local markets it serves. That level of transparency may be useful to people already enrolled in a health insurance plan to see the possibly different rates charged by each of the providers who participate in their insurer’s network. However, it would not help people choose a health insurance plan by allowing them to compare the prices different insurers have negotiated. Though publicly available prices might raise concerns about anticompetitive behavior, they could be useful to the many people choosing among insurance plans and seeking to minimize their total out-of-pocket spending on both insurance and health care.

Aggregated or average price information would make it more difficult for providers to coordinate higher prices because individual providers’ prices would not be obvious. That aggregated information might be of limited use to people, because it would not allow comparisons of

30. It is not clear how consolidation of health care plans and hospital systems into national companies has affected the bargaining process. Leverage in one city market could be used to gain better terms in another.
33. Town and others, “The Welfare Consequences of Hospital Mergers.”
34. Ginsburg, “Shopping for Price in Medical Care,” p. w214.
36. Those individuals would include policyholders who purchase coverage in the individual market, employees whose employers offer two or more health insurance plans, and married individuals eligible for coverage through either spouse’s employer.
actual prices for different providers and different treatments. In small markets, where there may be fewer than five hospitals or other providers, even providing aggregated information would appear to fall outside the safety zone.

What Could Happen to the Range of Prices Paid?

More transparent prices would probably reduce the range of prices that providers agreed to with payers as the new information altered the balance of bargaining power. That narrowing might happen in two different ways. A given provider might find price discrimination—charging different payers different prices—more difficult. Payers facing the high rates could use more transparent price information to press the provider for lower prices. Meanwhile, those private payers at the low end of the provider's accepted payment range might see prices rise, driven by the provider's ability to observe rivals' prices and the provider's desire to reduce the pressure to lower rates for high-end payers. More transparency would also shrink the range of prices paid by reducing the variation in prices among different providers. With transparency, low-price providers would see the opportunity to raise rates, and high-price providers would seek to avoid losing clients to rivals with lower prices. Such compressing effects would also be expected if providers' average prices were published. As long as there were enough different transactions that averages did not reveal the prices paid by individual payers, concerns about the potential for less aggressive price competition would be attenuated.

As an example, German electricity markets experienced a reduction in price dispersion following the government's requirement that operators of transmission networks publish their access charges. In the year after the change, the average charge was little changed, but the variance decreased. The operators with the lowest prices before the requirement took effect raised their rates, while those with high prices reduced them.

What Is the Likely Net Effect of More Price Transparency?

The implications of increased price transparency on the average price of health care goods and services, total health care spending, and the federal budget are ambiguous. The confluence of many factors—changes in individuals' actions, the lack of incentives or feasibility for many individuals to change their behavior in purchasing health care, the potential for less aggressive pricing in markets where providers are concentrated, the counterweight in markets where insurers are concentrated, and the reduced variation in prices—makes it difficult to determine which forces would ultimately outweigh the others. In addition, the interpretation of price transparency used might also influence the end result for average prices and health care spending.

If, for example, insurers have a stronger bargaining position than providers and if enough individuals pay for a substantial portion of their care out of pocket, price transparency that reveals insurers' negotiated rates could bring lower average prices and less spending. Conversely, when providers have a stronger position and individuals have few incentives or little ability to conserve health care spending, that same transparency could produce higher average prices and spending. Those results, however, may hold only in the short term, as health care providers decide to enter or leave health care markets in response to the prices they receive.

37. For further discussion, see Congressional Budget Office, Potential Effects of Disclosing Price Rebates.