

Would Greater Price Transparency and Uniformity

Benefit Poor Patients?

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Abstract

President Bush, the World Health Organization, and leading scholars have called for greater price transparency in health care. Prices are transparent when the buyer knows her price in advance, or knows prices paid by others in advance. Transparent prices inform consumers of expected costs and reveal when sellers are charging high prices to poor people. Under some conditions, however, price transparency can increase prices paid by the poor, deter business entry in poor markets, reduce competition, lower investment, and mislead if inaccurately measured by a third party. We recommend alternative approaches to enhancing efficiency and lowering prices for the poor.

Calls for Price Transparency

President Bush, the World Health Organization, and leading scholars have called for greater price transparency in health care. Price transparency has different meanings and different implications for society's well-being. We define two types of price transparency, examine the effects on sellers and society, and offer alternative policy recommendations.¹

In health care, price transparency is absent in two cases. The first case involves a buyer who is unaware of the price for treatment before receiving it, and unaware of the price paid by others for the same treatment. Historically, hospitals have been unable or unwilling to quote prices in advance, so some third parties such as the federal government have intervened to provide transparency. In 2006, President Bush signed an executive order requiring that hospitals and physicians disclose price and quality of care provided to Medicare beneficiaries, federal employees, the military and veterans.²

The second case of a lack of price transparency involves a buyer who knows the price offered her by a seller, but is unaware of the price offered to others by the same seller for the same treatment. Pharmaceutical treatments are examples. Pharmaceutical companies quote prices to their customers, but do not always reveal what price they offered to other buyers. The World Health Organization (WHO) and Health Action International (HAI) are third parties working to post international pharmaceutical price comparisons.³

Price transparency is a treatment prescribed for multiple health care “ailments,” including inefficiency and inequity. Some believe price transparency will increase efficiency by promoting price competition. Others believe price transparency will increase equity by reducing prices and enhancing access for the poor.⁴

Price transparency can, however, have harmful side effects under some conditions. Price transparency can increase prices paid by poor people, delay or deter launch of products in poor markets, reduce competition, lower investment spending, and mislead if inaccurately measured by a third party. We describe the conditions under which transparency might be socially beneficial or harmful, and suggest which outcome is likely in various health markets. In particular, we describe the harm done to the poor from price transparency by a third party when the seller already quotes a price to a buyer in advance of purchase. We conclude by recommending alternative policies.

Effects of Price Transparency

First, price transparency can reduce buyers’ search costs. Transparency might also help identify whether procurement personnel are obtaining low prices.⁵ For example, the performance of an agent responsible for negotiating the purchase of a drug can be assessed by comparing the price obtained by the agent with the price obtained by those in different countries or different firms. Economists refer to this as yardstick competition; transparent prices provide the yardstick by which agents’ performance is measured.

Second, price transparency can make buyers and sellers tougher negotiators. Buyers would have new information, and sellers would have additional incentives to avoid price concessions for one buyer that could cut the price for all buyers.⁶

Third, transparent prices might facilitate collusion among sellers and raise prices.⁷ Stigler (1964) demonstrates that secret discounts can drive down prices paid in many markets. In contrast, price transparency can increase prices by making cartels easier to enforce.^{8 9}

Fourth, price transparency might lead to more uniform prices as a result of better-informed buyers,¹⁰ who will use their knowledge of lower prices to negotiate better terms from the seller. Anticipating such negotiations, or perhaps in an effort to avoid the appearance of unfair pricing, sellers may offer all buyers the same price. Many scholars have analyzed the consequences of a single price for all buyers (uniform pricing) versus different prices for different buyers (differential pricing or price discrimination).^{11 12 13} For simplicity, consider the effects on three groups. First, buyers for whom uniform prices are lower than those under price discrimination are clearly better off. Second, buyers for whom uniform prices are higher than those under price discrimination are clearly harmed. Third, sellers' profits fall under most circumstances, because if uniform prices increased profits, sellers would have already chosen to set uniform prices. To avoid converging to one price, firms might elect not to sell to buyers in low price markets or might find alternative ways of making prices less transparent. In general, sellers would like to charge lower prices to price-sensitive buyers who are often poor. Hence, price transparency that makes prices more uniform could increase prices for the poor.

Fifth, price transparency and uniformity could harm incentives for research and development. The discussion thus far has focused on the short-run consequences of uniform prices. In the pharmaceutical industry, however, long run effects on research R&D should also be addressed. If uniform pricing reduces firms' profits it reduces their incentives to invest in risky R&D projects.¹⁴ At the margin, some projects whose social benefits justify the costs of development will not be undertaken.

We now examine the different "patients" for which price transparency is prescribed, beginning with pharmaceuticals and then turning to hospitals.

Pharmaceutical Price Transparency

The World Health Organization and Health Action International advocate pharmaceutical price transparency, meaning that buyers would know the prices that others pay. A 2001 resolution from the World Health Assembly created a mandate for extensive international drug price surveys. These surveys are, however, flawed according to Ridley (2005). The WHO/HAI price measurement i) has insufficient adjustments for drug quality variations, ii) uses price ratios rather than price levels, iii) artificially measures countries' wealth (e.g., using a country's lowest-paid unskilled government worker), iv) disregards patents, v) is too slow in adjusting to changes in prices, inflation, and exchange rates, and vi) requires difficult-to-obtain procurement prices.¹⁵ If the measurement issues could be resolved, would pharmaceutical price transparency be socially beneficial? We examine this below.

WHO/HAI argues that price transparency would simplify procurement. Under price transparency, the price charged to other buyers could be a substitute for a competing bid from a different supplier. The additional information provided by transparent prices could reveal cases of egregious mismanagement or corruption by government officials or excessive mark-ups by middlemen or retailers. Thus, the WHO/HAI proposal for price transparency might introduce yardstick competition.

Actually, there is little uncertainty about the true cost of most drugs. With a few exceptions (such as biologics), marginal costs are low. True, there might be uncertainty as to exactly how low marginal costs are, and extremely poor countries might benefit from knowing that the true marginal cost is lower by one penny. However, price transparency would likely be more beneficial to governments in rich countries. Many wealthy countries already use international reference pricing, and mandate that the price cannot exceed the average or minimum price in a basket of other countries. WHO/HAI seems aware of the usefulness of price comparisons in middle and high-income countries, writing "The methodology has been designed primarily for use in low- and middle-income countries, but should be applicable to all countries..."¹⁶

Easier international price comparisons could lead to more price uniformity across countries. This might result from international reference pricing, parallel trade, pressure from governments, or a desire by firms to avoid the appearance of "unfair" price discrimination.^{17 18 19} As mentioned in the previous section, increased price uniformity has ambiguous effects on social well-being. Here, we consider which factors would apply in the market for pharmaceuticals.

Developing countries that are paying more than rich countries benefit if price transparency leads to a uniform price below what they are currently paying. Obviously, the converse is also true: countries that are paying relatively low prices for drugs would be harmed if the uniform price were higher. The WHO/HAI report noted many instances in which prices in developing countries were above the median international price, but there were also many other medicines that were relatively inexpensive (below the median international price) in developing countries. It is worth repeating that profit-maximizing pharmaceutical firms would be more likely to set low prices in developing countries and high prices in developed countries. A uniform price would likely be between the firm's preferred price in developed countries and that in developing countries, thus harming people in developing countries. Hence, price transparency might hurt those it is intended to help.²⁰ Furthermore, pharmaceutical companies tend to avoid markets with relatively low prices with the potential to undermine higher prices in other markets.^{21 22} In other words, some low-priced markets are simply not served, and greater price transparency might result in even fewer product launches in low-priced countries.

Clearly, pharmaceutical profits fall as a result of price transparency. Understandably, the WHO/HAI is more concerned with the well-being of people in developing countries than the short-run profits of drug firms. However, in the long run, investment in R&D will probably fall if pharmaceutical firms expect lower profits. Estimates vary as to the magnitude of the reduction in new drug development.^{23 24 25 26} However, any decrease in innovative output would have

negative consequences for both developing and developed countries, and these consequences should be weighed against the benefits of increased short-run affordability.

Another concern is that pharmaceutical firms might direct their R&D toward rich-country diseases. Products that are not essential for life are easier to price high and keep out of developing country markets that could undermine the rich-country price. For example, pharmaceutical companies might focus on treatments for Alzheimer's disease and obesity. To some extent, pharmaceutical firms already focus R&D efforts on rich countries.^{27 28} However, an increase in price uniformity might only tilt the focus even more towards rich markets.

We noted in passing that firms might respond to a policy of transparency by making direct price comparisons more difficult. In response to U.S. Medicaid procurement policies, which require firms to sell their drugs to Medicaid at the lowest price they sell to any private insurer, firms introduced additional versions of their products, with certain versions intended for the Medicaid market, and slightly different versions for private buyers.²⁹ Similarly, there is evidence that pharmaceutical firms adjusted their product portfolios in the European Union to make parallel trade of identical products between high and low price countries more difficult.³⁰ Some drug firms already produce different versions of their products for developing markets, largely to identify gray market trade (illegal shipments from developing countries to markets with higher prices). They might find it profitable to differentiate further: for example, they might market only basic versions of their

products in developing countries, while selling extended-release versions in rich countries.

Thus, even if international price comparisons could be accurately made by third parties, the social consequences are ambiguous.

Hospital Price Transparency

Historically, uninsured patients have not had transparent prices for hospital services, meaning that patients have been unaware of what others pay, and that patients have not known in advance what they would pay.³¹ The demand for price information is increasing, though, as more consumers opt for high-deductible insurance coverage or choose elective surgery not covered by insurance.³²

In 2006 HCA, the largest U.S. hospital chain initiated a trial at its north Texas hospitals. Patients were offered estimated prices prior to care. While common practice in other markets, estimating individual prices in advance was novel in the U.S. hospital market. In 2007 HCA planned to extend the practice to most of its U.S. hospitals.³³ Exhibit 1 lists prices for uninsured patients using select services posted on the web by HCA hospitals in north Texas in March 2007. HCA describes these as “managed care-like” prices. Insured people, who might care about prices because of deductibles or coinsurance, can call HCA for price quotes. Uninsured people with income less than 200 percent of the Federal poverty level receive free emergency care.

INSERT EXHIBIT 1 NEAR HERE

Hospitals, like other firms with market power, prefer to charge lower prices to poor or uninsured patients, who have high demand elasticity. For example, China's TEDA International Cardiovascular Hospital charges US\$6.70 per night for poor patients or US\$3200 per night for rich patients receiving identical care, though different quality rooms.³⁴ Likewise, India's Narayana Hrudayalaya charges US\$2400 for a regular package involving open heart surgery or up to US\$4300 for a package with private rooms but identical care.³⁵

Unfortunately, at many U.S. hospitals, poor uninsured patients were charged prices higher than private insurers paid for the same services.³⁶ In 2004 uninsured and other self-pay patients were charged 2.5 times what most health insurers paid and more than 3 times what Medicare paid for the same services.³⁷ Vulnerable patients like these face higher prices for three reasons. First, poor uninsured patients do not have the negotiating power of insurers. Second, hospital administrators believed that they had to charge high prices to the poor so as not to undermine Medicare and private insurance prices. Third, high charges for uncompensated care make the hospital appear more charitable (important for justifying the hospital's non-profit status) and increase its Medicare outlier or private insurance stop-loss payments. Tenet appears to have been especially aggressive with its charges; its outlier payments increased from \$351 million in 2000 to \$763 million in 2002.³⁸

In addition to hospitals, physicians and drug manufacturers have benefited from inflated list prices. For many years, physicians administering injectable drugs were reimbursed for the drugs based on AWP (average wholesale price or "ain't what's paid"). Pharmaceutical manufacturers appear to have inflated the drugs' list

prices in order to increase government payment to physicians and thus increase physicians' demand for the drugs.³⁹ Likewise, free drug samples are valued at list price.

Price transparency exposes hospitals that charge higher prices to certain populations. Transparency might benefit the uninsured poor. Transparency might also benefit insurers who could become better negotiators able to compare the price they pay to the price their rivals pay. On the other hand, transparency might make hospitals tougher negotiators, because they could credibly decline to give an insurer a discount on the grounds that the hospital would face pressure from other insurers for the same discount.⁴⁰ Finally, most hospital markets have few competitors, and in oligopoly markets such as these, transparent prices can facilitate collusion. Transparent prices make it easier for oligopolies to set a collusive price and easier to maintain the collusive price, because they cannot secretly deviate from it.⁴¹

If price transparency reduces profits it could force hospitals to close or discontinue unprofitable services. In many industries, it is desirable for less efficient firms to close. It can, however, be inefficient and inequitable if a closure results from improper government reimbursement. Some of the least profitable hospitals are those serving inner cities and those providing services such as burn units, neonatal intensive care units, and AIDS clinics. Altman and colleagues (2006) argue that price transparency would have severe consequences unless payers increase reimbursement for under-funded services.⁴²

We have argued that price transparency can indirectly lead to price uniformity. Some have argued for direct mechanisms for price uniformity. The state of Maryland requires that providers charge the same price to every patient, regardless of insurance status. Porter and Teisberg (2006) recommend that federal regulations ban differential pricing by providers or at least require that “charges by a given provider for the same services would not vary more than the allowed band.”⁴³

Price uniformity would correct the problem of poor buyers paying more than rich buyers. A disadvantage of price uniformity, however, is that it would become illegal to charge lower prices to poor people. Surely hospitals should be permitted to give discounts to low-income people. Currently, hospitals negotiate with poor people to pay a fraction of their total charge. This benefits hospitals. Hospitals have high fixed costs of technology, but the marginal costs are often lower, so use of some technology could be offered to the poor at a low price.

Calls for price uniformity are motivated in part by the prevalence of higher hospital prices for the poor than for the rich in the U.S. It seems, however, that some of the problem will be solved by regulatory reform. In 2004 Mike Leavitt, the U.S. Secretary of Health and Human Services, told the American Hospital Association that Medicare rules do not prohibit discounts for poor people.⁴⁴ Now some hospitals offer means-tested discounts for uninsured patients bringing the prices they pay closer to or less than prices paid by commercial insurers.^{45 46} If hospitals continue to move toward lower prices for the poor, then uniform prices could raise prices for the uninsured poor. In the next sections, we make policy recommendations for pharmaceuticals and hospitals.

Recommendations for Pharmaceuticals

First, rich and poor governments alike should commit to reduce gray market trade and international reference pricing.⁴⁷ Facilitating differential pricing would probably help developing countries and pharmaceutical firms, though richer countries would have to accept higher drug prices. For example, the U.S. government accepted that it would be charged higher prices than low-income people in 2002 when the administrator for the Centers for Medicare and Medicaid Services informed pharmaceutical manufacturers that their discount cards for the poor would not count against Medicaid best price. Without relaxing the law, several manufacturers indicated that they would not have offered low prices to the poor.⁴⁸

Second, the WHO and other international organizations should continue to examine the bottlenecks to supply within developing countries.⁴⁹ It is in the interests of drug manufacturers and advocates for the poor to improve drug supply chains. These alternatives to transparent pricing would likely be more effective in achieving the fundamental aims of the WHO/HAI.

Recommendations for Hospitals

First, other hospitals should join HCA in providing patients with price quotes in advance. This is more useful for hospitals and patients than relying on third parties to post historic prices paid by others.

Second, hospitals should promise low prices to the poor who hold hospital discount cards. Charging lower prices to them can be permissible, ethical, and

profitable, so we should expect it. The program could be modelled on the discount cards introduced by pharmaceutical manufacturers.

Third, the U.S. government and private insurers should change reimbursement mechanisms that reward hospitals for inflating charges for the poor. While hospitals no longer interpret the rules as requiring them to charge high prices to the poor, hospitals can still inflate their apparent generosity by charging high prices for people who do not pay. Uncompensated care should be valued at Medicare prices rather than at hospitals' list prices.

Fourth, in order to help hospital profits which could be hurt by price transparency, services with high social value but low current reimbursement should receive higher payments, perhaps including hospitals serving poor communities, burn units, neonatal intensive care units, and AIDS clinics.

Conclusions

We began by distinguishing between two situations involving a lack of price transparency. For the first case, which results from a buyer's ignorance of the price charged in advance, we believe calls for price transparency are generally sound. In the second case, where the buyer is unaware of the price charged to others, we suggest that the effects of requiring price transparency are less clear.

In the previous sections we detailed six recommendations related to price transparency and its effects on manufacturers and society, especially the poor. First, providers and manufacturers should quote prices for patients in advance of

purchase. Second, when providers quote prices, governments and non-governmental organizations should not require that the price to one buyer be uniform or transparent to all buyers, because it can undermine differential pricing (and be inaccurate). Third, international organizations should continue to examine the bottlenecks to supply within developing countries. Fourth, providers should endeavor to help the poor (and often help their own profits) by identifying low-income patients and charging them lower prices. Fifth, in order to decrease incentives for inflating charges, uncompensated care should be valued at Medicare prices not hospitals' list prices. Finally, in order to help hospital profits which could be hurt by price transparency, services with high social value but low current reimbursement should receive higher payments.

Price transparency and uniformity are beneficial in many markets, where competition forces price to equal unit costs; the generic drug market is one example. Likewise, in markets where the seller refuses to quote a price in advance, price transparency can pressure sellers to do so, as in hospital markets. On the other hand, in markets where sellers do quote advanced prices and where price discrimination can benefit poor people, price transparency can raise prices for the poor and decrease providers' incentives to enter poor markets. Additional research would be valuable in measuring the net effect of price transparency.

EXHIBIT 1

HCA posts estimated prices for its uninsured patients on the Internet. This is common practice in other industries, but rare for hospitals in 2007.

Service	Arlington	Fort Worth	Plano
Atrial Fibrillation	\$6,967 - \$17,099	\$5,834 - \$14,038	\$6,203 - \$14,969
Congestive Heart Failure	\$11,713 - \$24,963	\$8,105 - \$18,134	\$7,742 - \$20,473
Coronary Atherosclerosis	\$10,539 - \$22,059	\$7,446 - \$13,194	\$8,899 - \$16,387
Percutaneous Transluminal Coronary Angioplasty	\$36,113 - \$55,257	\$24,009 - \$36,370	\$30,171 - \$44,905
Low Cervical Cesarean Section (C-Section)	\$6,670 - \$8,483	N/A	\$6,118 - \$7,907
Normal Vaginal Delivery of a Newborn	\$3,113 - \$3,858	N/A	\$3,280 - \$3,918
Total Hip Replacement	\$35,160 - \$41,354	\$31,453 - \$38,806	\$36,399 - \$43,780
Total Knee Replacement	\$31,832 - \$41,620	\$31,116 - \$42,197	\$33,034 - \$40,686
CAT Scan	\$1,039 - \$1,614	\$1,098 - \$1,484	\$1,224 - \$1,652
MRI	\$1,390 - \$2,386	\$877 - \$2,587	\$1,139 - \$2,131

Uninsured patients with income less than 200 percent of the Federal poverty level receive free emergency care. Source: HCA North Texas Patient Pricing and Financial Information March 2007 (<http://www.lonestarhealth.com/>)

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