
The Relationship Between Pricing Transparency and Price Competition in the US Health Care Industry

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I. Introduction

Escalating health care costs and wide variation in health care prices in the US have given rise to questions about how to encourage price-shopping by consumers and stimulate price competition among health care providers. Would making it easier for consumers to compare prices across providers cause patients to select lower-cost providers? Would providers lower their prices in response? Given the variability and opacity of prices of health care services in the US, can consumers even compare prices in the first place? In this context, policymakers and researchers have an increased interest on pricing transparency within the health care industry. Pricing transparency refers to practices that make prices more accessible and understandable for stakeholders such as patients, employers, insurers, government entities, and researchers.¹

Advocates of health care pricing transparency argue that it could lower health care spending without compromising quality of care for several reasons:²

- First, health care spending in the US is higher than in other developed countries, with health care prices thought to be a major driver of these spending differences.³ For instance, in 2016, the US spent 17.8% of its GDP on health care, whereas Australia, Canada, Denmark, France, Germany, Japan, the Netherlands, Sweden, Switzerland, and the UK all spent less than 12.5% of their GDP.⁴ These differences in spending appear to be driven more by the prices of labor and goods and administrative costs than by differences in utilization rates.
- Second, US health care prices for the same medical service vary widely across regions, across hospitals in the same region, and even within hospitals.⁵ Such price variation occurs even for undifferentiated medical services, suggesting that patients do not shop based on price.⁶
- Third, many stakeholders have limited access to health care pricing information, which hinders their ability to make informed decisions about care.

Pricing transparency initiatives aim to shed light on these price variations, potentially reducing them and lowering health care costs. Economists' predictions of the effects of pricing transparency regulations on prices, however, are ambiguous, and the empirical evidence on the effects of these regulations has so far been mixed and context dependent. In this article, we summarize recent pricing transparency regulations and examine and review the economic research on their effects.

II. Health Care Prices for Whom?

Different price measures matter to different stakeholders in the US health care system. For example, an insurer is likely concerned about the full cost of an MRI, but a patient is likely concerned only about their out-of-pocket costs. Depending on their intent, pricing transparency regulations may report different measures of price. There are at least three common price measures:

- **List prices** are the prices that health care providers charge and the maximum that patients might pay. Uninsured patients may be particularly concerned about list prices, as these are the prices that they face unless they secure discounts.
- **Net prices** reflect the discounts that insurers negotiate from health care providers. Insurers interested in reducing total medical spending are likely more concerned about net prices.
- **Out-of-pocket costs** reflect what patients pay. For insured patients, out-of-pocket costs are typically only a small share of net prices, which in turn may be only a small share of list prices. Insured patients are likely more concerned about their out-of-pocket costs than what their insurer pays.

Legislators and researchers often focus on different pricing measures. In the following sections, we summarize legislative efforts to promote pricing transparency in health care and findings from academic research.

III. Summary of Recent Pricing Transparency Measures

Over the past decade, state and federal governments have introduced and enacted legislation to promote health care pricing transparency at different levels of the US health care system. These rising transparency measures have focused on two areas:

1. Prices of prescription drugs, usually by requiring manufacturers to publish list prices
2. Prices and costs of hospital services and procedures, usually by requiring providers to publish list or net prices

A. Pricing Transparency Measures for Prescription Drugs

Twenty-four of the 50 US states have passed over 35 laws aimed at promoting transparency for prescription drug costs since 2017.⁷ While advocates of these laws seek to make prescription drugs more affordable to patients,⁸ most efforts have focused on the list prices that manufacturers charge, not the out-of-pocket expenses that patients pay:

- Some states, such as North Dakota, have required drug manufacturers to report **list prices**.⁹
- Other states, such as California¹⁰ and Florida,¹¹ have required manufacturers to report **planned list price increases**. Legislation currently being considered by the US Senate – the Fair Accountability and Innovative Research Drug Pricing Act – would require drug manufacturers to “report about certain price increases for prescription drugs and biological products with a wholesale cost of at least \$100 per month,” as well as report additional information such as cost of development, revenue, and profit.¹²
- Other states, such as Minnesota and Oregon, have required other market participants – such as pharmacy benefit managers (PBMs), insurers, or pharmacies – to provide further information on prescription drugs.^{13,14} For example, Oregon requires insurers to provide information on the costliest and most commonly prescribed drugs, and the impact of prescription drugs costs on insurance premiums.¹⁵

B. Pricing Transparency Measures for Medical Services

Other transparency measures at both the federal and state level have focused on prices of medical services. These laws vary substantially in scope and the types of price measure they report.

At the federal level, there has been a significant effort to increase transparency for list prices, net prices, and out-of-pocket expenses:

- The Hospital Price Transparency Rule of 2019 requires US hospitals to publicize up-to-date list and net prices starting in 2021.¹⁶
- The No Surprises Act protects patients from unforeseen medical bills for out-of-network medical services.^{17,18}

- President Trump’s executive orders on price and quality transparency require insurers to report list prices, negotiated rates, and out-of-pocket costs for medical services.¹⁹

At the state level, 17 states have passed over 30 pricing transparency laws for hospital services since 2020:²⁰

- Some states, including Arkansas, Arizona, and Colorado, have passed laws that enhance penalties for those providers that do not comply with federal transparency regulations. These laws typically do not impose additional information requirements.²¹
- Other states, including Florida ²² and Oklahoma, ²³ require hospitals to report list prices before patients receive a service. These laws typically do not require hospitals to report patients’ out-of-pocket costs.

IV. Economic Insight into The Effect of Pricing Transparency Measures

A. Benefits and Drawbacks of Pricing Transparency

Proponents of pricing transparency argue that it can help patients compare prices across health care providers by reducing what economists call “search costs.” ²⁴ If consumers have better information about prices, they can select lower-cost medical services that still meet their needs.

Pricing transparency measures can reduce health care spending through the demand side (how consumers respond) and the supply side (how health care providers respond):

- On the demand side, pricing transparency can lower medical spending by guiding patients to lower-priced providers. The more relevant the information provided to the patient (for instance, out-of-pocket expenses as opposed to list prices), the more likely these measures are to impact patient behavior. Insurers, in turn, may use greater access to list price information to negotiate lower prices with providers.²⁵
- On the supply side, pricing transparency can promote price competition among providers, as providers can attract more patients through lower prices when it is easier for patients to compare prices.

However, pricing transparency does not necessarily impact consumer behavior. Patients only have a financial incentive to choose a lower-priced provider if doing so reduces their out-of-pocket costs. For patients with insurance (92.1% of the US population in 2022),²⁶ out-of-pocket costs are typically only a small share of list or net prices. Chernew, et al. (2021) found that, even for common undifferentiated services such as an MRI, insured patients often select high-priced options even when lower-price providers are readily available.²⁷

Additionally, many patients base treatment decisions on factors other than price. For example, in emergencies, patients are unlikely to price shop. Other considerations, such as provider reputation or physician referrals, are often more critical in patients’ decision

making. Even for non-emergent, undifferentiated services, patients often rely on their physicians' recommendations, which may not prioritize cost. For example, primary care providers employed by hospital systems will commonly refer patients to providers within their system, even when less expensive alternatives exist.²⁸

Furthermore, economists have warned that pricing transparency measures could increase health care spending:

- First, pricing transparency could facilitate collusion among health care providers,²⁹ making it easier for competitors to monitor and maintain collusive price agreements.³⁰ For example, Albaek, et al. (1997) found that prices for ready-mix concrete in Denmark increased by 15–20% after the Danish government publicly released transaction prices, likely due to decreased price competition.³¹
- Second, pricing transparency might discourage providers from offering discounts to specific customers,³² as these discounts would be visible to all customers, thereby potentially forcing providers to offer similar discounts to their other customers. Faced with the choice of giving a discount to all customers or none, providers may opt to stop offering discounts. For example, the Medicaid Drug Rebate Program – which requires drug manufacturers to extend discounts that they give to non-Medicaid purchasers to Medicaid purchasers as well³³ – has been shown to increase drug manufacturers' incentive to offer lower discounts to non-Medicaid purchasers, all else equal.³⁴

Thus, economic theory suggests the effect of pricing transparency regulations is ambiguous. In the next section, we summarize the available empirical evidence.

B. Empirical Evidence

The empirical evidence on the impact of pricing transparency is also mixed. Some studies suggest that access to price information can encourage price shopping, particularly when the transparency focuses on out-of-pocket costs. Lieber (2017) shows that employees of a large firm obtained lower prices, particularly for non-primary and nonemergency care, after gaining access to net prices and out-of-pocket costs for medical services.³⁵ Brown (2019) found that the introduction of a pricing transparency website in New Hampshire, which provided net prices and out-of-pocket costs for medical imaging procedures, resulted in modest price reductions. These reductions occurred both because consumers, particularly those with deductibles, chose lower-priced providers and because providers lowered their prices.³⁶

However, because many patients are insured, they might not be fully incentivized to use pricing transparency tools. As a result, some researchers have found that these tools have low adoption and therefore a limited impact on consumer behavior, even when out-of-pocket cost information is provided.³⁷ For example, Mehrotra, et. al (2014) found that only 1% of New Hampshire residents visited the state's pricing transparency website tool over three years.³⁸

When pricing transparency measures impact list or net prices instead of out-of-pocket costs, the evidence on consumer behavior is even more mixed. Some studies find modest effects. For example, Whaley (2019) found that patients chose lower-priced

providers after accessing negotiated pricing information, although this was limited to certain services like laboratory tests, and not office visits.³⁹ Other studies, such as Christensen, et al. (2020), found no change in consumer behavior but documented that hospitals slightly lowered list prices, likely due to reputational costs associated with the perception of overcharging.⁴⁰ Finally, Allcott, et al. (2021) found a slight increase in spending after list prices were reported for outpatient providers in New York.⁴¹

The effectiveness of pricing transparency depends on how responsive patients are to price changes when they have access to pricing information. For services where patients are not price sensitive, access to pricing information may not lead to price shopping. Conversely, for services where demand is more price sensitive, access to pricing information can have a greater impact on patient behavior. Economists have studied how responsive patients are to changes in health care prices. Findings suggest that demand is somewhat price sensitive. For instance, Prager (2020) found that consumers actively shopped based on out-of-pocket costs, even for complex inpatient care.⁴²

However, there is also evidence that insurance coverage limits patients' responses to price changes. Studies by Whaley, et al. (2017) and Auoad, et al. (2019) show that patients are more responsive to price changes when reference pricing programs are in place. These programs set reference prices for certain procedures and require patients to pay the difference for care that exceeds this benchmark.⁴³ This is consistent with studies that found stronger responses to pricing transparency among patients with higher cost sharing. Thus, the effect of pricing transparency is larger when it is combined with a stronger financial incentive to price shop.⁴⁴

V. Conclusion

We draw three main conclusions:

- First, much of the policy rationale and academic research on pricing transparency has focused on helping insured patients price shop. By contrast, much of the pricing transparency regulation has mandated the disclosure of pricing information that is of limited relevance to insured patients. More recent regulations have attempted to bridge that gap.
- Second, the predicted effects of pricing transparency regulations on prices are ambiguous and context dependent.
- Third, the empirical evidence on the effects of pricing transparency on comparison shopping and pricing has been mixed and context dependent. However, pricing transparency appears more effective when combined with stronger incentives for patients to price shop.

Endnotes

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