

issue brief

Understanding the Use and Impact of Price Transparency in Health Care: Where Are We and Where Do We Go from Here?

Executive Summary

In 2013, the Robert Wood Johnson Foundation (RWJF) launched a call for proposals for empirical studies that would contribute to understanding the use and impact of price data in health care. The goal was to generate reliable and generalizable evidence to inform policymakers and other stakeholders and accelerate the pace of efforts to use price information effectively. As this program, managed by AcademyHealth, concludes, rising health care prices and the need for price transparency have garnered national attention. In May 2016, RWJF held a meeting that provided an opportunity for RWJF grantees to present some of the key findings from their research to a panel of experts actively engaged in developing and using health care price information. For a description of each study, see Appendix A. The key findings presented at the meeting include:

- Consumer demand for and availability of price information is growing, but many consumers do not use price comparison tools when they are available, and use of transparency tools did not significantly reduce consumer health spending or total health expenditures.
- Although previous research has suggested that clinicians reduce their ordering rates when they are given information on prices, the current RWJF studies found no overall change in ordering rates when pricing information was displayed on physicians' ordering screens at the point of care.
- The consolidation of health care markets appears to have significant effects on health prices, and market power is associated with higher prices.

For meeting participants, the growing demand for price information from the public and from payers underscored the need for focused research on (1) what types of price information (and other aspects of value) consumers want and (2) how to get that information to them in ways that they can and will use. There are also large gaps in understanding how clinical care providers engage, or do not engage, with patients on issues of price and value and what constitutes the “tipping point” in terms of the proportion of value-based payments that would lead to more cost-conscious treatment decisions. Meeting participants called for greater attention to the needs of low-income and other vulnerable consumers who command neither market power nor the resources to use many of the price tools that are currently available. Discussants cautioned that the work on developing and using health care price information requires an awareness that price transparency and comparative pricing tools need to be part of a broader agenda that addresses benefit design and provider payment policies, potentially fostering more effective price competition in health markets.

Overview

In 2013, the Robert Wood Johnson Foundation (RWJF) launched a call for proposals for empirical studies that would contribute to understanding the use and impact of price data in health care. The goal was to generate reliable and generalizable evidence to inform policymakers and other stakeholders and accelerate the pace of efforts to use price information effectively. As the research program, managed by AcademyHealth, concludes, rising health care prices and the need for price transparency have garnered national attention. In May 2016, RWJF held a meeting that provided an opportunity for RWJF grantees to



Robert Wood Johnson Foundation

Changes in Health Care Financing and Organization is a national program of the Robert Wood Johnson Foundation administered by AcademyHealth.

present some of the major findings from their research to a panel of experts who are actively engaged in developing and using health care price information. Attendees represented a spectrum of stakeholders, including consumer advocates, journalists, health care providers, payers, and regulators as well as academic researchers. The panel engaged in an actively moderated discussion to explore the “state of the art” in price transparency with respect to consumer engagement, providers’ attitudes toward and behaviors regarding price information, and the market effects of greater price transparency. Meeting participants also identified questions for which more and better evidence may be needed to guide policy decisions that promote more effective use of price information.

Price Transparency and Consumer Engagement: If You Build It, Will They Come?

Four sets of findings from grantees’ ongoing work raised important issues about consumer demand for and use of price information that resonated throughout the entire session. (See *Appendix A for an overview and citations for the grantee publications to date that provided a framework for the meeting.*)

- Results from a nationally representative survey of American adults found that the majority of Americans reported that they have tried to find price information before getting care. Among those who have not sought price information, more than half said that they would like to know prices in advance, but half said that they do not know how to find price information. However, looking for price information is not the same as comparing prices across providers. About one in three reported checking prices for a specific provider, while one in five reported comparing prices of different providers. A majority of Americans do not know that providers’ prices vary. Most Americans do not equate price with quality. People who said that they had compared prices were somewhat more likely than those who had not done so
- Early findings from an evaluation of a large health plan’s customized price transparency tool that provided bundled total and out-of-pocket costs over the course of an episode for selected conditions found that a small number of those with access to price information in fact used the information. Preliminary results indicate that the price transparency tool varies in terms of utilization and impact among enrollees with various clinical conditions. The study sheds light on the tool’s impact on provider choice, the use of over- or underutilized services, and potential reductions in health expenditures (Cuellar).
- An experiment designed to test the use of a start-up’s price transparency tool in a “best case scenario”—a relatively healthy, higher-income, educated population employed by a large health care information technology firm and enrolled in high-deductible health plan options—found that use of the tool was not associated with lower health care costs. The online tool provided consumers with customizable information on out-of-pocket costs for specific types of health care as well as information on quality ratings by provider. While more than half of the households with access to the price tool used it at least once, only 10 percent used it three times or more (Swift and Gabel).
- Analysis of a health care transparency tool developed by a large commercial insurer found that fewer than 5 percent of eligible subscribers used the online tool. As in the previous analyses, researchers found that consumers who did use the tool focused on obtaining information for a small set of services that are “shoppable,” such as those associated with pregnancy and childbirth, along with imaging tests and procedures (e.g., colonoscopies, mammograms,

MRI, some nonemergency outpatient procedures such as tonsillectomy, cataract or lens procedures, hernia repair, and office visits). Plan enrollees needing more services were more likely to use the tool. Among patients who had a medical care service that made price information available, younger people were also more likely to access price information online; women and people with higher-deductible spending were more likely to seek price information online. The analysis also suggested that, for some of the shoppable services, particularly office visits, subscribers may have used the tool to check on benefits or network coverage rather than to compare prices per se (Sinaiko).

Meeting participants asked specific questions about the research findings but also drew on their own knowledge and experience to offer additional context for interpreting the grantees’ findings.

Consumer interest in price transparency

Participants generally agreed that there has been a significant increase in the demand for, and availability of, data on health care prices in recent years. They noted the growth of online sources developed by public entities, insurers, business coalitions, and consumer advocacy groups. For example, one participant described an online blog now operating in 10 locations around the United States that works like other consumer sites such as Yelp.[®] The online sources solicit information from users and provide search tools that allow users to sort through the reports and compare local information on prices for specific types of services. Grantees and discussants also noted that evidence suggests that people who receive unexpectedly large health care bills, especially bills for services that they thought would be substantially covered by insurance, are more likely to seek information about prices for subsequent care. They agreed that, given that the RWJF grantees’ and other existing research evidence make it clear that younger, educated consumers are more likely to seek price information

online, price shopping will increase over time. Some also expressed the hope that greater volume and visibility of price information could change consumers' expectations about the price information that they should be able to obtain routinely from insurers and providers.

Barriers to consumer engagement on price

Participants devoted considerable attention to exploring reasons for low levels of use of price transparency tools. They began by discussing how tools were designed, what information was included, and how and when the information is made available to potential users. Several participants involved in large-scale consumer information initiatives pointed out that, while some of the price transparency tools were introduced nationally by large insurers, the availability and quality of price information vary widely across markets, and, for some localities, no useful data were available at all. Others added that, in some markets, there is little or no effective competition among health providers because there are few provider choices. In the absence of effective competition, price information may not be particularly useful to consumers, and using the tools promoted by their insurance carrier could be frustrating.

Several discussants suggested that the notorious complexity of health care prices and billing conventions undermines the utility of price transparency tools. Tool developers have to make decisions about the level of detail to include in the tools and how to package the information. Consumers may want to know about prices for individual services or for bundles of services required for treatment of an illness or major procedure. The billing systems used by many commercial insurers, based on the Medicare fee-for-service billing system, can involve several charges for a medical encounter such as a simple outpatient surgery, including separate bills from physicians, facility charges, separate charges for laboratory work, etc. Moreover, technical variations within categories of tests and

procedures reflect differences in complexity and resource requirements (for example, how many views are required in imaging tests and whether contrasting agents are used). Both researchers and consumer advocates described, in particular, the difficulty of providing accurate pricing information for different types of imaging tests. Reflecting on this complexity, some meeting participants expressed the view that the sometimes "indecipherable" nature of billing codes would need to be addressed before price transparency tools could work as intended. Some discussants said that several insurers are in fact moving toward consolidated billing for some services but restructuring the existing system would be difficult and expensive.

Participants then raised more general concerns about well-known online ratings and information on prices and discounts for various consumer goods and services that might be incomplete, biased, or misleading. Several also described evidence from their own work on consumers' mistrust of data offered by insurers, health plans, and employers. Grantee research suggests that, instead of obtaining information online, many consumers prefer to obtain information about health care options and costs from people, including family and friends and staff working in physicians' offices. Some suggested that public sources such as the all-payer claims databases that are up and running in some states might be viewed with greater trust. Consumer advocates also expressed concerns about whether online data will help address the needs of vulnerable populations, including people with serious health problems as well as people with limited health literacy and computer skills. Discussions about whether price transparency tools are useful to consumers also addressed the issue of getting information to people at the right time, that is, when they can review alternatives and obtain additional information if needed before making a decision about treatment alternatives or where to seek care.

Finally, meeting participants raised higher-level concerns about the underlying goal of engaging consumers on price. Health care consumers, some participants reasoned, should not be expected to maximize utility on the basis of price alone. Participants postulated that access to care, location, time costs, and perceptions of value that encompass factors beyond those captured by quality rating scores may all contribute to rational, informed consumers' decision-making processes. The participants observed that loyalty to personal providers and premium branding—preferences for receiving care from highly regarded providers—may be as important to health care consumers as it is in other aspects of consumer choice. From this perspective, the finding from the RWJF study that people enrolled in high-deductible plans were not more likely to use the tool may not be surprising. However, other RWJF research found that people with deductibles over \$500 (which could be the case in a wide range of plans, not just in high-deductible plans) are more likely to have sought price information. Some asked if the grantees' findings could be viewed as more evidence of the need to challenge the underlying rationale for using high deductibles to reduce health spending.

Providers and Price Transparency: The Next Frontier?

Although only one of the RWJF grants focused directly on providers' response to the availability of information on health care prices (Chien), meeting participants identified a range of issues emerging from the body of current research. Many of the issues were intertwined with the earlier discussion of consumer engagement. Although previous research has suggested that physicians reduce ordering rates when they have information on prices, the RWJF-funded study found no overall change in ordering rates when pricing information for imaging studies and procedures was displayed on physicians' ordering screens at the point of care. Neither internists taking care of adult patients nor pediatric generalists changed their ordering

rates in light of price information, and physicians who generally treated adult patients increased their ordering rates for their pediatric patients (often teenagers who had outgrown pediatric care).

Prices and physician culture

Meeting participants discussed how the organizational culture of the medical group may have shaped clinicians' response to seeing price information on their ordering screens. The setting for the RWJF-funded study was an organization that views itself as committed to evidence-based medical practice. Protocols and guidelines already in place are designed to help guide clinicians toward the use of effective services. Many physicians told the researchers that they thought that their ordering patterns already reflected a minimal use of discretionary or low-value tests and procedures. The study included physician discussions that provided useful context for wider discussion of providers and health care prices. The researchers found wide variation in physicians' views about the appropriateness of including prices in decisions about diagnostic and treatment care. Some said that price transparency is a "great idea" that helps them serve their patients' needs; others did not think that addressing price is part of their job, and some firmly believed that factoring price into clinical decisions is unethical.

Several discussants asked whether current research had explored how the doctor-patient relationship may be changing in light of growing concerns about cost and choice of providers. Participants indicated that available research generally shows that most physicians do not engage with patients on issues of cost. However, evidence from the RWJF-funded work suggests that physicians do want to talk about price if they think prices are important to the patient and if they have grown comfortable with those discussions. Several participants noted that whether patients want information on prices varies by income. RWJF-funded research found that people with incomes over \$100,000 are less likely than those with lower incomes to have compared prices. Participants noted

that higher-income patients may be less likely to want, or need, to talk with providers about prices than middle-income patients, who may face large deductibles and copayments. One discussant reported that ongoing work with vulnerable, lower-income patients found that such patients were highly interested in engaging providers about prices and wanted price to be included in care recommendations. The research also found that price issues were a leading factor in mistrust of providers, sometimes leading consumers to leave plans entirely. Another discussant described qualitative evidence that at federally qualified health centers, low-income patients—generally charged on sliding scale—wanted price information from their providers. Another discussant noted, however, that Medicaid enrollees (who are generally not exposed to significant out-of-pocket costs) rarely asked about price.

Participants discussed approaches to helping clinicians grow more comfortable in using price information and tools. Some asked if the use of price information should be part of medical school curricula. Clinicians participating in the discussion pointed out that the first part of medical education immerses students in the clinical aspects of care and that students are not exposed to variations in health care prices until they are interns or residents. Some suggested introducing price issues earlier in medical training, but clinicians working in academic medical environments were concerned about the difficulty of making significant changes to the current medical education model. There was more general agreement on the potential benefits of using several approaches to disseminating price information and tools to clinicians and their patients "early and often," so that they are more generally aware of and comfortable with the notion of talking about costs of care.

Provider organizations' perspectives on prices and cost

Meeting participants were interested in knowing more about how clinicians view the financial implications of ordering patterns for their medical practices and plans

where they were affiliated. The discussants noted that price information may be used in several ways. At the point of care, price information can help educate clinicians by making them more aware of the costs of care and perhaps even making them more comfortable talking with patients about cost burdens. But meeting participants also talked about ways that price information is used in practice oversight and management to identify clinicians whose referral patterns or use of ancillary services cost more than those of their peers. Providers' and consumers' interests with regard to price are not, discussants stressed, necessarily the same. Clinicians paid under capitation arrangements have clear incentives to avoid unnecessary costs; in fee-for-service systems, providers are paid more to do more. There was general agreement, however, that, in the current environment, physicians generally are not aware of the specific reimbursement rules that apply to any particular patient or do not make treatment decisions based on a patient's coverage and reimbursement status.

Meeting participants also noted that referrals and downstream cost are virtually "cost-unconscious" because there is no infrastructure to support that level of price transparency. However, participants suggested that the types and mix of value-based reimbursement for a medical practice as a whole could provide context for research on integrating price information into clinical decision-making. They noted that there is a dearth of research on where the "tipping point" is, that is, the proportion of reimbursement incorporating value-based payment incentives that would lead provider organizations or individual clinicians to be more cost-conscious when considering treatment options.

Price Transparency, States, and Markets: Do All Boats Float?

The meeting concluded with a wide-ranging discussion of the interplay of price transparency and price variations in health care markets. Participants agreed that market changes, most notably health system mergers and hospital acquisitions of physician practices that create large

vertically integrated systems, may have significant effects on health prices. These large providers should, discussants said, be well situated to coordinate care across settings and to analyze price variations for inpatient, outpatient, and office care. Better understanding of care costs should, in turn, put large integrated systems in a good position to assume risk under capitation arrangements that provide incentives to hold down prices.

Provider consolidation and price increases

The RWJF grantees' (McWilliams and Neprash) work on hospital and physician integration and health care prices across the United States found that markets with more hospital and physician financial integration have experienced greater increases in spending for commercially insured outpatient care. Most of the increase was attributable to increases in provider-based billing and prices negotiated by provider groups with commercial insurers. The grantees suggested that, to the extent that market power is associated with higher prices for some providers within a market, there may be more opportunities for transparency to apply downward pressure on prices or to have unintended consequences such as lower-priced providers using comparative price data to negotiate higher prices. Participants speaking from a regulatory perspective pointed to an urgent need for research that can guide policy strategies to address this form of market failure.

Consumers and price in consolidating health markets

Discussants wanted to know more about how the availability and usefulness of price information for consumers may change as markets consolidate. Researchers have not determined if prices are more or less transparent to consumers in more consolidated systems. Several participants noted that, when a market is highly consolidated, there are "tremendous" limits to what an individual consumer can be expected to do with com-

parative price information. Instead, several meeting participants suggested focusing on simpler decision tools that make the out-of-pocket consequences of the available choices exceedingly clear. For example, billing rules for outpatient services allow for separate billing for professional services and facility charges that result in higher costs in provider-based settings. A decision tool could simply show which options are provider-based (and therefore will cost more), without explaining the several charges in any detail. The goal, several discussants said, should be simplicity; tools and other forms of information on price would be more likely to lead to shifts in market-wide perceptions of health costs if they make it easy to see differences among health care options.

Leveraging price information

Expanding on earlier discussions, meeting participants pressed for greater attention to ways that some large payers are using comparative price information, including reference pricing and selective contracting. Several meeting participants pointed to the California Public Employees' Retirement System (CalPERS) reference pricing program, which set a reimbursement threshold for selected procedures (inpatient hip and knee replacement) that it determines by reviewing the prices at hospitals that meet various criteria, including quality standards. If CalPERS enrollees have surgery at designated hospitals, they pay their plans' typical deductible and coinsurance up to the out-of-pocket maximum. Patients may go to other in-network hospitals for care, but they are then responsible for both the typical cost-sharing and all allowed amounts exceeding the threshold amount (and the excess costs are not subject to out-of-pocket maximums). While the system presents clear incentives for consumers to focus on price, meeting participants emphasized that, because of CalPERS's strong hold on market position, hospitals have an enormous incentive to reduce their prices to the threshold level without waiting for consumers to decide where to receive care.

Meeting participants also commented that group purchasers with significant market clout can drive down market prices through selective contracting arrangements that, in effect, establish a price ceiling for providers or suppliers. Another participant noted that self-insured employers were using price data in New Hampshire; initially, analysis found no effect on prices after the posting of comprehensive price information from New Hampshire's all-payer claims database price data on a consumer-friendly web site. However, a later evaluation found that, while consumers were not using the site, employers were starting to pay attention to the differences in prices across providers and changing the benefit designs for their employees in order to steer them to more efficient providers.

Final Thoughts

Despite the challenges surrounding price transparency in health care, the great majority of meeting participants concluded that, with respect to efforts to increase health care price transparency, "the glass is half full." The goal, they agreed, should be to figure out how to build price information systems and tools that get the right information to both consumers and providers, in the right formats, at the right time.

Consumers, meeting participants concluded, are "still a pretty hard nut to crack." Several participants noted that tool development is not as important as learning more about what information on price and value consumers really want when they can choose among care alternatives. Topics that the participants identified as priorities for future work included, first, assessing the importance of "branding," such as loyalty to personal providers and preferences for "premium" provider organizations, and, second, understanding whom consumers trust when it comes to price and value information. Meeting participants also identified a need for greater attention to the needs of low-income and other vulnerable consumers who have neither market power nor the resources to

use many of the currently available price transparency tools.

Participants singled out providers as a critical nexus for research and policy to address variations in health care prices and slow the trajectory of health costs. Several meeting participants emphasized that, in large part, commercial market prices for health care are set in the contracts that payers and providers negotiate. Meeting participants agreed that there is a great deal more transparency regarding payment rates and arrangements now than just a few years ago, but they also agreed that there are large gaps in understanding how providers and payers engage, or do

not engage, on issues of price. Speaking from a consumer perspective, researchers as well as discussants pointed to a critical need to investigate how clinicians across the range of practice settings engage with patients on issues of price and value. Discussants also urged that research directly address how provider behavior may be changing as prices become more transparent and consumers are exposed to increasing amounts of cost-sharing.

There was a consensus among meeting participants that greater price transparency along with better tools that consumers want to use could be catalysts in a changing health care market environment. But

the meeting participants also concluded that the available evidence shows that price information does not automatically lead to lower expenditures. They urged the integration of research on price transparency and comparative pricing tools into a broader agenda that addresses benefit design and provider payment policies that could foster more effective price competition in health markets.

About the author

Jill Bernstein, Ph.D., is a consultant working with the Changes in Health Care Financing and Organization (HCFO) initiative.

Appendix A:

Understanding the Use and Impact of Price Transparency in Health Care: Grantee Overview

In 2013, the Robert Wood Johnson Foundation launched a call for proposals, managed by AcademyHealth, to fund empirical studies that would contribute to understanding the use and impact of price data in health care. The goal was to provide reliable and generalizable evidence to inform policymakers and other stakeholders and to help accelerate progress in using price information effectively. This synthesis provides an overview of each grantee and their findings to date. Full details about the grants are available by clicking on the grant titles below or by accessing the references provided at the end of this document.

[The Effect of Point-of-Care Price Information on Physician Ordering Behavior and Clinical Decision-Making](#)



Ahyun T. Chien, M.D., M.S., Boston Children's Hospital

The researchers evaluated the impact of giving physicians information about the prices of commonly ordered imaging studies and procedures. They found that displaying the information in the ordering screen of physicians' electronic medical records did not alter how frequently physicians ordered the tests. They also found that physicians involved with this experience described being more interested in information about patient out-of-pocket costs so that they could better address patients' affordability concerns.¹

[The Impact of a Customized Price Transparency Tool on Consumer Behavior](#)



Alison Cuellar, Ph.D., George Mason University

The researchers examined consumers' response to a customized price transparency tool instituted by a large health plan that provides detailed comparative cost and quality information on treatment bundles. Preliminary findings indicate that the price transparency tool varies in terms of utilization and impact among enrollees with different clinical conditions. The study sheds light on the tool's impact on provider choice, the use of over- or underutilized services, and potential reductions in health expenditures.²

[How Americans Seek and Use Price Information in Health Care: Findings from a National Survey](#)



Carolin Hagelskamp, Ph.D., and David Schleifer, Ph.D., Public Agenda

The researchers conducted a nationally representative survey to find out how Americans seek and use health care price information and to explore people's opinions and perceptions regarding price and price information. The survey found that 56 percent of Americans have tried to find price information before obtaining care but that only 21 percent of Americans have compared prices across several providers. People who compared prices were more likely to say that they saved money than people who had checked only one provider's price. Even among people who had not ever tried to determine a price before obtaining care, more than half said that they would like to know prices in advance. But many of them said they did not know how to find price information. The survey found that most Americans do not equate cost with quality in health care. However, it also found that most Americans are not aware that prices may vary across providers. The findings indicate a widespread interest in choosing less expensive care. However, they also indicate a need to increase awareness of price variation and to make reliable price information easier to find. Given that the survey found that people's responses to questions framed in terms of high price and high quality differed from their responses to questions framed in terms of low price and low quality, the findings also suggest that transparency initiatives should consider how price and quality information are presented.^{3,4}



Effects of Physician Concentration, Physician-Hospital Integration, and ACOs on Prices in Commercial Health Care Markets



J. Michael McWilliams, M.D., Ph.D., Harvard Medical School, and Hannah Neprash, Ph.D. Candidate at Harvard University

In an ongoing study, the researchers are examining the relationship between ACO contracting and different forms of provider consolidation as well as between ACO contracting and commercial health care prices. In other completed work, they have found that consolidation between physicians and hospitals has increased commercial prices for outpatient care with minimal effects on utilization, resulting in higher outpatient spending. Effects of physician-hospital integration on prices likely arise from a combination of enhanced bargaining power and the spillover of Medicare payment differentials. The study findings suggest the need for tools to reduce the negative consequences of provider consolidation.^{5,6,7,8}

Impact of Price Transparency Tools on Consumer Behavior



Anna Sinaiko, Ph.D., Harvard T.H. Chan School of Public Health

The researchers evaluated the effects of the Aetna Member Payment Estimator (MPE), a web-based transparency tool that provides personalized, episode-level cost estimates. They analyzed characteristics of enrollees who use the MPE, their searching behavior, and patterns of utilization over time. Study findings indicate low rates of overall use of the MPE in its first two years. Among enrollees with the potential to use the price information, MPE users were younger, healthier, and more likely than non-users to have higher deductible spending. The findings suggest that raising awareness of the MPE or proactively delivering price information to patients, particularly older and sicker patients, could increase the potential impact of the MPE on consumer behavior.^{9,10}

Can Health Care Price Transparency Lead to Consumer Choice of Less Costly Care? A High-Deductible Health Plan as an Experiment



Elaine Swift, Ph.D., MITRE, and Jon Gabel, M.A., NORC at the University of Chicago

The researchers studied how employees of a health care consulting firm respond to an e-tool that sends them customized messages about potential savings opportunities, price comparisons, and quality metrics associated with their high-deductible health plan (HDHP). Study findings suggest that having children and having higher expected medical costs are associated with higher utilization of health care price information. Savings from the tool were modest at best. The researchers posit that the policy community could be asking too much of a single tool, no matter how well designed. Information on relative value is spread far and wide through advertising and other types of promotion that rely on conventional, digital, and social media communication channels.²

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