Getting Accurate Price Estimates From Price Transparency Tools

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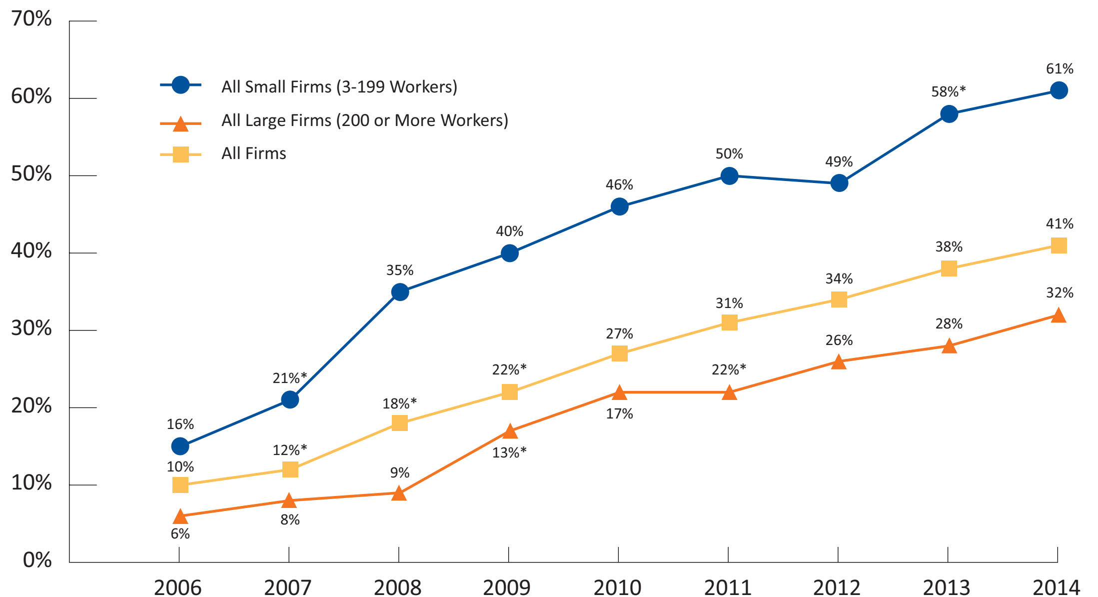
INTRODUCTION

For millions of Americans, health care is increasingly becoming a retail market. More than one in five Americans with private insurance is enrolled in a high deductible health plan. According to the 2014 Kaiser Family Foundation survey of health care benefits, 61 percent of employees in small firms and 41 percent of workers overall have a deductible over $1,000.[i]

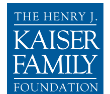
FIGURE 1: PERCENTAGE OF WORKERS ENROLLED IN A PLAN WITH GENERAL ANNUAL DEUCTIBLE OF $1,000 OR MORE FOR SINGLE COVERAGE, BY FIRM SIZE 2006-2014



*Estimate is statistically different from estimate for the previous year shown (p< .05).

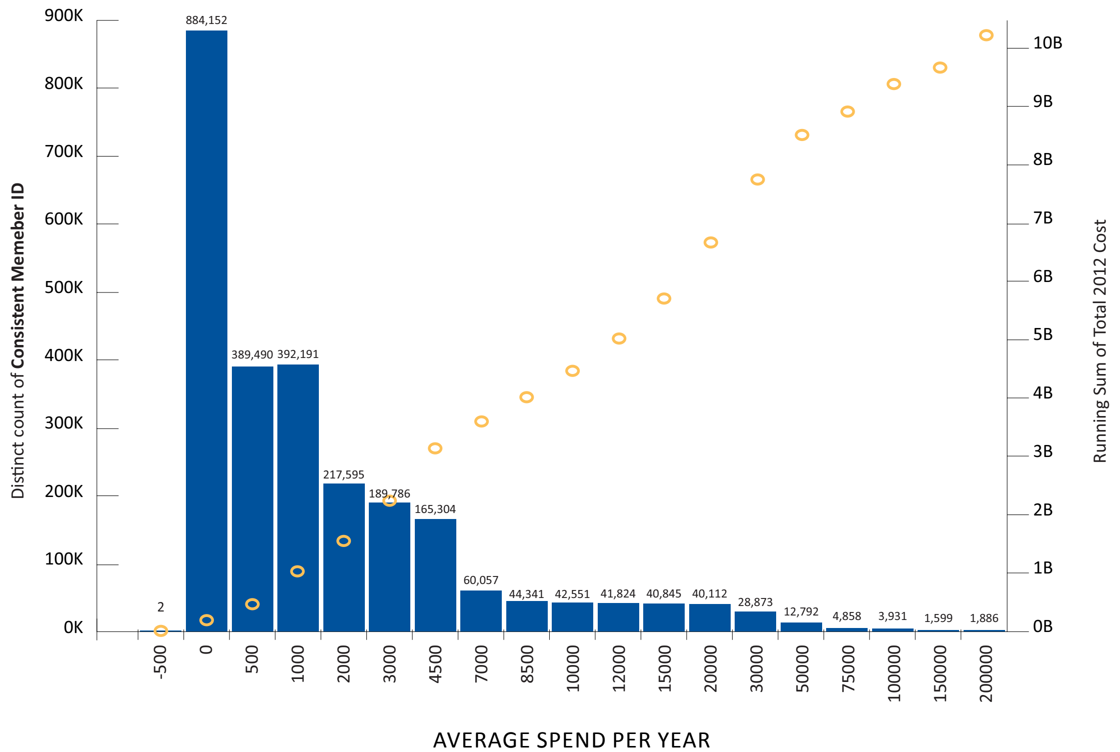
NOTE: These estimates include workers enrolled in HDHP/SO and other plan types. Average gerneral annual health plan deductivles for PPOs, POS plans, and HDHP/SOs are for in-network services.

SOURCE: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2006-2014.



On average, the deductible for single coverage is slightly over $1,200. In an HCI[3] analysis of a large commercially insured population, a significant percentage of the insured have total annual health care expenses of less than $2,000.[ii] This means they pay most of these health care expenses out-of-pocket. Beyond the base deductible, many insured workers also have to pay co-insurance until they reach their out-of-pocket maximum. Depending on where that maximum and co-insurance percentage are set, cost sharing can continue for total health expenses in excess of $20,000 per year.

FIGURE 2: NUMBER OF PLAN MEMBERS BY ANNUAL SPENDING AMOUNTS (BARS), AND TOTAL CUMULATIVE SPEND ACROSS ALL PLAN MEMBER COHORTS (CIRCLE)



For the insured, health care has become much more retail, in the traditional sense of the word, as patient-consumers shop around for health care the way they shop for other household items and services. Patient-consumers are partially or wholly financially responsible for everything from routine sick care to some of the most frequently performed procedures in the U.S. For example, the average total price of a pregnancy and delivery is about $6,500, a colonoscopy procedure (including pre and post-procedure prices) averages $2,500, and a knee arthroscopy procedure averages $7,000.[iii]

However, these price averages are just estimates. Other experts have documented the variability in the total price of a medical episode of care. As a result, information on the predicted price for the treatment of an illness, injury, or condition has become all the more important for patient-consumers.[iv] Many employers have recognized this and worked with their third-party administrators or other vendors to deploy information on health care prices to their employees.

WHAT IS PRICE TRANSPARENCY? WHAT ARE THE PRICE TRANSPARENCY TOOLS AVAILABLE TO CONSUMERS?

The U.S. Government Accountability Office's (GAO) definition of price transparency is "the availability of provider-specific information on the price for a specific health care service or set of services to consumers and other interested parties." GAO defines price as "an estimate of a consumer's complete health care cost on a health care service or set of services that (1) reflects negotiated discounts; (2) is inclusive of all costs to the consumer associated with a service or services, including hospital, physician and lab fees; and, (3) identifies the consumer's out-of-pocket costs (such as co-pays, co-insurance and deductibles)."[v]

The Healthcare Financial Management Association's (HFMA) Price Transparency Task Force adds to the GAO definition with "Readily available information on the price of health care services that, together with other information, helps define the value of those services and enables patients and other care purchasers to identify, compare, and choose providers that offer the desired level of value."[vi]

Today, all the major national health plans offer their members some type of online price transparency tool where they can look up the price for typical services and procedures. However, CPR's 2013 National Scorecard on Payment Reform revealed that 98 percent of health plans say they offer cost calculator tools—but only two percent of patient-members actually use them. Therefore, a growing number of purchasers and employers have turned to third party vendors in search of tools and services that engage their employees and dependents, and encourage them to shop. Over the last several years, independent vendors, such as Castlight Health, Truven Analytics, Change Healthcare, and Healthcare Bluebook have made significant strides in developing price transparency "products" designed to help consumers shop for health care.

WHAT ARE THE FEATURES OF THESE TOOLS? WHAT COMPONENTS WOULD BE MOST USEFUL TO CONSUMERS?

Most transparency products now contain information on hospitals and physicians, price and quality, and the consumer's share of costs. However, they can differ in a number of strategic ways. Some are "high touch," with vendors providing information over the phone or text messages and or emails. Others encourage consumers to search online by physician, procedure, or medical condition. Some vendors choose to display general price levels, while others cite specifics. Some plans and vendors highlight the total price of care for a procedure or treatment; others focus on the consumer's share of costs. Products differ in how they display value to consumers and in how they attempt to influence choices of care. In addition, many come with a robust "out of the box" engagement strategy that also includes communications tools, such as text messages, that encourage consumers to use the tool repeatedly. Some vendors claim engagement rates are as high as 60 percent.[vii]

Some of these tools only allow members to search for specific procedures and services – for example by CPT code.[viii] Others enable members to look up prices for episodes of care that combine the multiple services and/or procedures a patient is likely to receive during a particular episode of care, for example, knee replacement surgery. A growing number of tools available today from health plans and third party vendors state that they can show consumers a price estimate for an episode of care (although the definition of "episode" does vary). This is often preferable for consumers, who don't think of health care as an unjointed series of discrete services and procedures, but rather as a complete medical event. It is much more intuitive for a plan member expecting a new baby to look for price (and quality) information for an episode of "labor and delivery" rather than for the separate prices of each visit to the obstetrician-gynecologist, each ultrasound, the delivery, and post-delivery visits.

However, as these price transparency products proliferate, they should have several features that make them accessible and useful to consumers. In our 2013 Report on The State of the Art of Price Transparency Tools, CPR explained consumer friendly tools should:

- Be easy to use
- Allow consumers to understand their share of cost, the total cost, and their spending and utilization to date
- Show quality measures that matter to consumers
- Allow consumers to compare price and quality, easily and side-by-side
- Help consumers identify and understand value
- Contain information on pharmacy and ancillary services, as well as other information designed in particular to assist the elderly and the chronically-ill
- Help consumers avoid unneeded care and find less expensive care options
- Encourage consumers to use the tool
- Be easily customized, while integrating smoothly with other platforms and products
- Give employers reports on utilization and savings, and involves them in continuous quality improvement activities

All of these domains are extremely important if we want consumers to use a tool that gives them timely information they can understand and act upon. But, there was one critical domain we did not give much air time: accuracy. Price transparency tools use different methods to calculate and convey price information to consumers. Shortcomings in methodology can lead consumers to pick the provider who appears to offer the best value, while—in reality—consumers are overlooking the provider who offers the highest quality, most affordable care. Misleading information means the consumer loses. And, unfortunately, many of the products on the market today may have methodological flaws that cause them to generate inaccurate price estimates. Here are some of the most common problems and their solutions.

1. Incomplete definitions of medical episodes (and a small number of episodes and or procedures)

A number of health plan and third-party vendor tools state that they show consumers prices for episodes of care, such as a total knee-replacement surgery, labor and delivery, or a colonoscopy. Since to-date the definitions of what bundle of services to use in calculating the price of a particular medical episode are not standardized, each vendor or plan uses their own definition. As a result, definitions vary and are often incomplete. One illustration of this would be that the price of an episode for surgery includes only the price of in-patient care—i.e., the price for an episode of care for knee replacement surgery may be based solely on in-patient surgery costs. However, data from various analyses show that post-procedure costs, such as rehabilitation, can represent over 30 percent of the total costs of the episode. Depending on the differences in these costs by provider, a consumer could think he/she are choosing the lowest price "surgery" provider, when in actuality this provider has the highest overall episode costs.

Similarly, consumers may make the wrong choice when the prices for episodes do not take into account potentially avoidable complications. Routine procedural episodes can sometimes lead to potentially avoidable complications, such as an infection acquired during care. While most potentially avoidable complications happen during the treatment itself, HCI³'s research shows that potentially avoidable complications for complex procedures, like joint replacements or cardiac surgeries, can occur up to 90 days post procedure.[ix] If the time window for the episode is too short, the projected price would not include these potentially avoidable complications, leading the consumer to another "wrong choice"—selecting a provider that might appear to be low priced, but has comparatively higher total costs. In that case, the consumer will pay more in the long term, and receive worse care (no patient wants potentially avoidable complications).

To help avoid this problem, purchasers, plans and vendors need to ensure price transparency tools do four things:

- Have well-constructed episodes of care that are clearly defined (see call out box below). If the care episode is very tightly limited in time, this should be explained to the consumer, with a prominent caveat alerting them to likely additional costs associated with follow-up (out-patient) care

HCI3 Evidence-informed Case Rates: HCI³'s episodes of care, or Evidence-informed Case Rates (ECRs), are the only open source episode definitions that can be used for multiple purposes including bundled payment and ACO programs, reference pricing initiatives and analyses of providers' price and quality. They also distinguish typical and routine services from those associated with potentially avoidable complications (PACs). Potentially avoidable services identified as overused services by the Choosing Wisely campaign are flagged within specific ECRs. Core services for certain conditions based on evidence-informed guidelines or expert opinion help identify gaps in care or underuse in the management of an episode. These definitions can be accessed at www.hci3.org/content/ecrs-and-definitions.

- Help the consumer distinguish between typical services and those associated with potentially avoidable complications.
- When dealing with episodes that have a long duration (three months or more), look at all costs related to routine care and assign comparative quality scores to providers based on the frequency of avoidable complications (such as unplanned admissions or readmissions). Show an estimate of the average price of complications.
- Provide consumers with complementary quality information, especially outcomes information when available, to help them understand how patients fare both in the short term and in the long term under the care of specific providers

In addition to having well-constructed episodes, tools should try to show a wide variety of episodes of care and/or individual procedures to remain useful to consumers. A tool that only shows prices for one or two episodes may be very accurate, but won't be useful to consumers who want to shop for a wide variety of their health care needs.

2. Ignoring whether providers deliver needed versus unneeded care

When a consumer sees that different providers have different prices for delivering an episode of care, that price variability may be due to differences in the "mix of services" provided in the course of that episode. Consider the example of a consumer trying to pick a low priced, high quality provider for his diabetes care. The consumer may use a tool to look at providers' "average annual cost" for caring for a diabetic patient, and think they are making an apples-to-apples comparison among providers. However, some of those providers may prescribe too many unneeded services or too few needed ones. Some might order the highest priced tests, or multiple tests when only one is needed. Some may neglect to perform key services or screenings. The Institute of Medicine—along with other leading experts—have catalogued this variation and proven it leads to patient harm in addition to excess costs. When disclosing the total price of an episode of medical care, it's important to adjust that price for underuse or overuse in order to provide objective comparisons among several providers. Otherwise the consumer with diabetes may choose the "low price" provider, but in reality, the relative "affordability" comes from the fact that the provider does not see his or her diabetic patients often enough.

To help avoid this problem, purchasers, plans and vendors need to ensure price transparency tools do three things:

- Take steps to help educate consumers about needed/recommended care, given their demographics and health status.
- When possible, create a standard episode price based on recommended care, and then compare that standard to each provider's actual price to help highlight potential overuse or underuse.
- Help consumers identify potentially unneeded care; the Choosing Wisely campaign can provide important content (see call out box below).

Choosing Wisely: An initiative of the ABIM Foundation, *Choosing Wisely* is working to spark conversations between providers and patients to ensure the right care is delivered at the right time. Participating organizations have created lists of "Things Providers and Patients Should Question," which includes evidence-based recommendations that should be discussed to help make wise decisions about the most appropriate care, based on a patients' individual situation. Consumer Reports is developing and disseminating materials for patients through large consumer groups to help them engage their physicians in these conversations and empower them to ask questions about what tests and procedures are right for them.

3. Creating price estimates from a small number of cases

Small sample sizes—meaning, too few observations on which to base a price estimate—can lead to significant accuracy problems. When price transparency tools rely on an employer's claims data, there need to be enough employees in any one location to provide accurate price estimates. Take for example a large employer with several thousand employees in New York and a few hundred employees in Wichita, Kansas. If that employer makes a single third party price transparency tool available to all its employees, employees in Wichita are less likely to get accurate price estimates than those in New York. In a region with a small number of employees, there typically are a small number of claims. There may only be a handful of employees who use a particular provider, so there are only a few data points about that provider's prices (based on historical claims data). Generally, when trying to calculate averages, the larger the data set, the more accurate the estimate. With larger data sets it becomes less likely that one or two unusual cases will throw off the average.

Providers and health plans who use gag clauses in their contracts may create similar problems. Such clauses can prevent the plan from disclosing paid amounts to consumers. This can limit consumers' ability to see price estimates for specific providers.

To help avoid this problem, purchasers and vendors need to ensure price transparency tools:

- Don't show price estimates when the sample size is small—HCI^3's analyses of commercial data sets suggest that sample sizes of less than 30 for any specific procedure (e.g. knee replacements) are inadequate in estimating the price for that procedure for a provider.
- Include a "confidence interval" with the price estimate. Most importantly, do this in a way that makes sense to consumers (and is explained in plain language). Confidence intervals typically show a range of probable price estimates around the average, given the sample size. The smaller the sample size, the larger the range. If consumers see and understand a range, they won't be surprised when the actual bill for their care is not close to the initial estimate the tool provided them.
- Disclose to consumer which provider's price information is blocked due to contractual restrictions known as "gag clauses."

4. Not accounting for rate increases

In trying to compensate for small sample sizes, some vendors may use multiple years of historical claims data to derive average episode or service prices. However, these prices may not reflect currently negotiated rates because health care prices negotiated between health plans and providers typically increase every year, most of the time by a rate greater than the general rate of inflation. Further, a CPR study showed that market consolidation—which has accelerated in 2013 and 2014—can lead to substantial price increases. As a result, relying on two to three year old claims data to provide price estimates may lead to false price information.

To help avoid this problem, purchasers and vendors should ensure that the published prices are either adjusted to reflect the most recent negotiated fees, or clearly indicate the year for which the price was calculated.

5. Not using carefully chosen visuals that are easy to understand and accurately interpret

The way a tool visually presents price information impacts how consumers use it. For example, individuals may equate low price with low quality. In one study of 1,400 adult employees, price information presented with dollar signs (with "$" representing low price and "$$$" representing high price) led a significant number of employees to use low price as a proxy for low quality. But when a star rating system was used to rate providers as "being careful with my healthcare dollars," employees in the study were significantly more likely to choose a lower price provider.[x] Any price transparency tool should experiment with the most effective means of communicating price information to various audiences. Even if the tool is highly accurate with numbers, if the symbols for prices are "wrong," consumers will not use the information effectively.[xi]

CONCLUSION

The market has made huge strides toward making information about health care prices ubiquitous. Now that price transparency is becoming the new normal, we need to ensure that the information about prices is accurate. What matters to the consumer is that tools provide an accurate estimate for the complete episode of medical care. Consumers need to know not only which provider has the lowest price, but also which provider offers the best overall value. To make this decision, they need quality information and they need price estimates that take into account costs associated with potentially avoidable complications. Furthermore, we need to assist them in understanding what care they need and what care to avoid. Price transparency tools that can provide this information will best be able to support consumers in seeking the highest-value health care.

i http://kff.org/health-costs/report/2014-employer-health-benefits-survey/
ii HCI^3 Analysis of commercially insured populations, 2014
iii HCI^3 Analysis of commercially insured populations, 2014
iv Typically price estimates are based on historical averages and trended forward to give the consumer a sense of the total price (negotiated rate) and what he or she will pay out of pocket.
v View the complete GAO report at: www.gao.gov/products/GAO-11-791
vi 2014. *Price Transparency in Health Care: Report from the HFMA Price Transparency Task Force*. www.hfma.org/transparency.
vii Interview with Castlight Health: http://healthcaresavvy.wbur.org/2012/03/castlight-aims-to-turns-patients-into-informed-consumers/
viii CPT or Current Procedural Terminology medical code is set and maintained by the American Medical Association
ix www.hci3.org/content/hci3-improving-incentives-issue-brief-analysis-medicare-and-commercial-insurer-paid-total-kn
x Judith H. Hibbard, Jessica Greene, et al, "An Experiment Shows that a Well-Designed Report on Costs and Quality Can Help Consumers Choose High-Value Health Care," *Health Affairs*, v. 31, no. 3 (2012): 560-568.
xi Healthcare Financial Management Association. 2014. *Price Transparency in Health Care: Report from the HFMA Price Transparency Task Force*. hfma.org/dollars

Health Care Incentives Improvement Institute, Inc. (HCI^3) is a not-for-profit organization dedicated to improving the quality and affordability of health care through evidence-based incentive and payment reform programs. It is the umbrella organization for Bridges to Excellence® and PROMETHEUS Payment,® as well the creator of Evidence-informed Case Rates (ECRs) (episode of care definitions) and ECR Analytics.® With these programs, HCI3 offers a comprehensive package of solutions for employers, health plans and providers to implement innovative solutions that can cure the incentives problems that plague the U.S. health care system, please visit **hci3.org**.

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