The Power of Data—From Data Mining to Consumer Pricing and Quality-of-Care Tools

Transparency tools, whether offered by carriers or third-party administrators, rely on adequate experience, by market and by service, to provide information to consumers about health care costs and quality of care. The opportunities for savings to individual consumers and to employer-sponsored health plans are clearly significant and possible if people will use the tools and act. This article reviews two studies showing a shift in consumer claims experience to less costly services after the implementation of a transparency tool and when combined with a consumer-driven health plan. It also outlines best practices employers can implement to carefully craft interventions to engage and create value in the minds of health care consumers.

by Leah C. Malof | Buck Consultants

Dan Ariely, in his book *Predictably Irrational*, observed how the pricing of “pharmaceuticals” (in experiments where the drugs were actually vitamins in disguise) contributed to the well-known placebo effect; higher priced drugs were reported by test subjects as more effective in treating their symptoms. Could providing cost transparency actually lead consumers to select higher cost health care services because they perceive them to be of higher value? And will greater and more personal financial responsibility override this tendency?

Changing behavior is fundamental to managing health care costs and good health in the short term and for sustainability over time. Consumer-driven health plans (CDHPs) place greater financial responsibility and opportunity in the hands of health care consumers to promote change in health and health care consumption.

While information on the importance of health is widely available, consumers have lacked access to comprehensive, reliable quality and pricing information. The quality information that was available was sparse, and the issue
of gaps in pricing remained a barrier to health care consumer objectives. Over time, the market has responded with both carrier and private company transparency tools and resources, but have they filled the gap? How are they perceived and utilized; and perhaps most importantly, are consumers using these tools to make decisions resulting in better quality and cost reduction for both consumers and employers?

Transparency tools, whether offered by carriers or third-party administrators, rely on adequate experience (by market and by service) to provide information to consumers. Whether they define hospital quality by leveraging their own data or national resources, such as those required by U.S. Department of Health and Human Services (HHS) reporting, they take available data and translate complex scoring methods into simple ratings. The goal is to teach consumers to look for ratings of quality and cost and to make informed decisions.

Quality is both an objective and subjective measure based on the values, perspective and preferences of the individual. Carrier-assigned quality measures are often debated by health care professionals, who question the weighting given to cost compared to other outcome and service metrics. Publicly available transparency tools such as those offered by Leapfrog Group provide information on hospital performance on national standards of safety, quality and efficiency. Also publicly available is Healthgrades, offering online resources for consumers to search, evaluate and compare physicians and hospitals. Both rely on information provided voluntarily by hospitals, physicians and consumers. Both receive support from credentialing boards, including National Committee for Quality Assurance (NCQA) and the American Medical Association (AMA). Third-party organizations such as Healthcare Blue Book and Castlight Health have gained recent popularity, and they rely primarily on individual employer claims experience as the basis for transparency.

Table 1, provided by Healthcare Blue Book (HCBB) and Castlight Health, shows price variability in two different metro markets. Services that are typically scheduled were chosen for the table, giving patients the opportunity to function like true consumers.

The opportunities for savings to individual consumers and to employer-sponsored health plans are clearly significant and possible if people will use the tools and act. The question is: If we lead them to the fountain, will they drink?

A 2003 study by Health Services Research provides a summary of the various research findings on how consumers select health care providers. One longitudinal study of 2,000 respondents by the Kaiser Family Foundation and the Agency for Health Care Research and Quality reported that respondents consistently relied on informal sources of information, and that these informal sources were more influential than those provided by “experts, employers, government agencies, consumer groups, patient surveys and doctors’ associations.” However, the survey showed that, between 1996 and 2000, those

<table>
<thead>
<tr>
<th>Service</th>
<th>HCBB Metro Market A</th>
<th>Castlight Metro Market B</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI of brain (with and without contrast)</td>
<td>Low: $937, High: $4,657</td>
<td>Low: $425, High: $3,497</td>
</tr>
<tr>
<td>Knee arthroscopy (outpatient facility fee)</td>
<td>Low: $2,942, High: $16,613</td>
<td>NA, NA</td>
</tr>
<tr>
<td>Colonoscopy (preventive; outpatient facility fee)</td>
<td>Low: $650, High: $5,027</td>
<td>Low: $491, High: $2,780</td>
</tr>
</tbody>
</table>

Source: Healthcare Blue Book (HCBB) and Castlight Health.
who "preferred a familiar hospital" dropped from 72% to 62%. Similar reductions were found on questions regarding selection of a surgeon or a health plan. This leads us to question what might be causing this shift. Could it be greater financial responsibility and/or access to quality and cost information as an additional and trusted resource for selecting health care providers? Regardless, the influence of informal sources must be taken into account to drive desired outcomes.

One outcomes study by Healthcare Blue Book compared the baseline utilization patterns of an entire population both before and after the implementation of their transparency tool (Table II). It’s important to note there were no changes in plan design in the second year. This data reflects the third and fourth year of a full replacement CDHP. There is no distinction between “searchers” and “nonsearchers.”

In a study by Castlight, 693 lipid panel claims were reviewed: 133 were “searchers” and 560 did not use the Castlight tool. The price variance on paid claims for searchers was from $22 to $32 while the nonsearcher price variance was $12 to $47.

In both studies, there was a shift in consumer claims experience to less costly services after the implementation of a transparency tool and when combined with a CDHP.

Whether employers leverage publicly available quality resources, carrier transparency tools or third-party administrators, there are a variety of best practices to maximize the value.

- Employers should consider a thorough analysis of price variability in their markets and the utilization by their members before investing in transparency tools. If variance is low or members are already choosing higher quality, median or lower cost providers, then the return on investment on new or additional transparency tools may not be justified.
- Financial responsibility on the part of consumers is necessary.
- The tool should be straightforward, readily available and easy to use.
- Training on the tool, its value, the financial impact on the individual, personal stories and the results should be part of regular communications to employees. This can help create both formal and informal influences on behavior.
- The tools should have adequate experience, particularly for high-volume scheduled procedures.
- The best tools show the true member financial responsibility, taking into account deductibles and copays. Note: The costs of preventive care such as colonoscopies are covered at 100% and not subject to copays, coinsurance or deductibles as required under PPACA. The employer bears the full discounted cost. Sharing those costs is still important. Even though employees do not bear the cost, the impact of employer total spending affects them in the form of premiums over time.
- Incentives beyond the out-of-pocket expense need to be crafted carefully to maximize investment, avoid overengineering and manage any potential risk associated with steerage.
- Employers should collect information regarding consumer experience with the tool and how it may or may not have influenced the consumer’s decisions and why.
- Employers should conduct a retrospective analysis to evaluate the impact objectively.

In the end, information is just one
tool to influence behavior. To invoke change, a strategy must include a good understanding of people's underlying motivation and the barriers to the desired outcomes. We must understand all the influences and influencers of a behavior and carefully craft interventions to engage and create value in the minds of health care consumers.

Endnotes


Leah C. Malof is the national clinical practice leader and director for the Health Analytics and Interventions Center of Excellence, Buck Consultants, a Xerox company. She has over 25 years of health care experience. She has worked in health care settings throughout the continuum: direct patient care, outpatient hospital and home care operations, and executive leadership for a third-party administrator and carrier. Her work has included development and oversight of programs including utilization, case, disease and disability management, wellness, and medical claims processing support and data management.