

Using Data-Driven Strategies for Immediate Cost Savings: How Big Data Can Unlock Significant Supply Chain Dollars

ONCE AGAIN, HEALTHCARE providers find themselves scrambling to ensure their financial viability in response to government changes to the healthcare system. The good news is that supply chain management is still a key source for savings when performed thoughtfully and strategically.

As the Centers for Medicare and Medicaid transition from volume-based payment to payment linked to quality and outcomes, we need to move into the mode of making effective *data-driven* decisions.

In this article, we look at the cost piece of the Cost, Quality, and Outcomes (CQO) puzzle, specifically an analysis of one hospital's total spend on spinal implants and how its data, integrated with credible, objective "bigger data," can reveal huge opportunities for savings.

The Value of Big Data in the CQO Equation

The term "big data" gets tossed around a lot in supply chain management these days. It typically refers to the massive amounts of data that collect over time that are difficult to analyze and handle using common database management tools.

In supply chain, the real value of big data often comes from combining multiple data sources and gleaning meaningful, actionable information from that combination. You gain the greatest insight when you integrate *your own* data, such as purchase order history, accounts receivable, billing, and product utilization, with an objective, credible source of "bigger data" that can help define your direction and cost savings strategy.

Setting the Correct Strategy and Tactics Using Big Data is Critical

Benchmarking your current spend is a logical first step to reducing costs. Once opportunities for savings have been identified, it is imperative to vet them with your key stakeholders to determine if they are all actionable based on your current

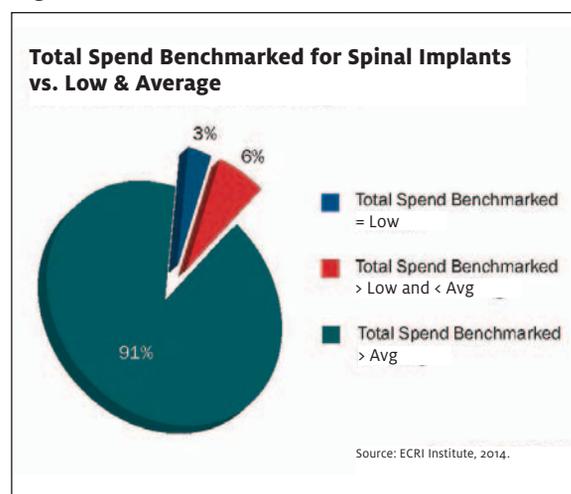
circumstances, such as the existence of sole source contracts and volume-based agreements and rebates. While price is a key metric to follow, clinical efficacy and outcomes are an integral part of the process as well.

A Scenario: How a Large Hospital Identified Savings on Spinal Implants

Using big data and decision support tools from a supply chain advisory service, the following illustrations show a real life example of how a large hospital identified a significant savings opportunity with spinal implants and how it communicated findings with its value analysis team, clinical staff, and executive leadership.

Looking at the hospital's total annual supply spend data in Figure 1 below, it appears that 91 percent of its current spend is above the national average price¹; therefore there is potential for significant savings within this category.

Figure 1.



Next, it's important to quickly determine which categories and corresponding products hold the key to unlocking those savings. Figure 2 shows almost half of all the potential savings identified for the top five spinal implant categories is locked up in bone screws, as illustrated on the following page.

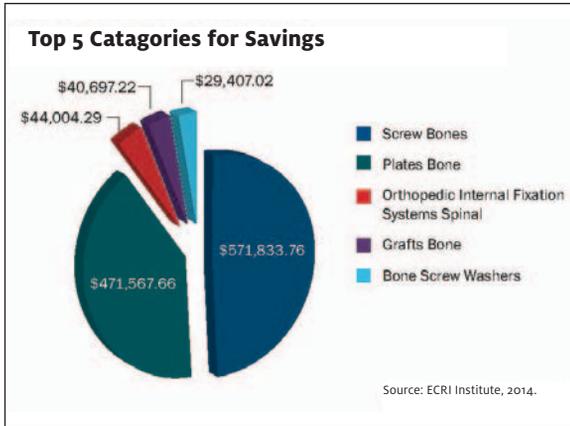
BY TIM BROWNE,
DIRECTOR,
PRICEGUIDE,
ECRI INSTITUTE



JOHN STRONG,
SUPPLY CHAIN
MANAGEMENT
CONSULTANT

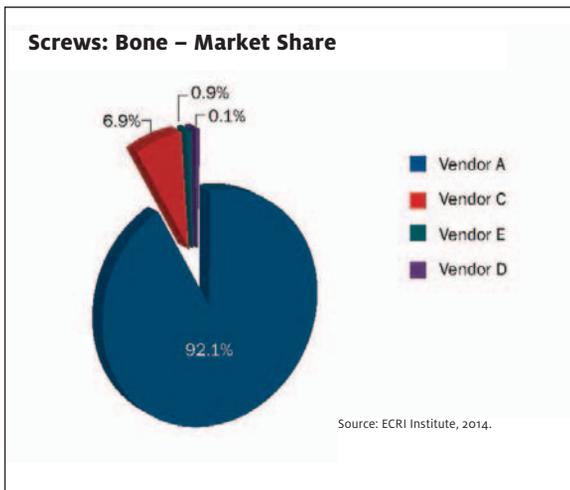


Figure 2.



“How many suppliers make up that potential savings?” As you can see in Figure 3 below, most of this hospital’s bone screw spend comes from a single supplier.

Figure 3.

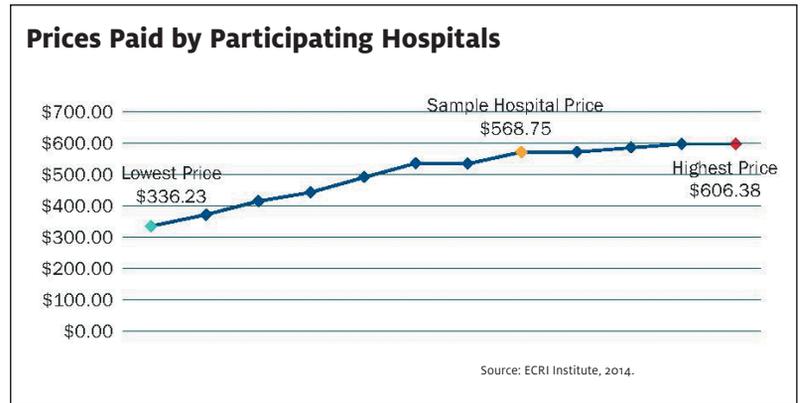


Data displayed above reveals that there are two major suppliers of bone screws within this hospital and there is less than 1 percent market share with the remaining two. Simple, yet insightful illustrations like this, can ultimately spur action towards standardization of supply items for additional savings opportunities.

While aggregating data at the category and supplier level can help to sell the opportunity to key stakeholders, a simple graph similar to Figure 4 depicting the wide variation of prices that hospitals in the national big database pay for the same item, drives the point home. It can also be particularly valuable when explaining or

defending the need to examine a product category with a physician who may have developed a preference or bias towards a particular vendor’s product. In addition, illustrations like these are not only useful internally, but are invaluable during discussions and potential negotiations with suppliers.

Figure 4.



Choose a Big Data Source for a Better View of Your Savings Opportunities

Make sure that the big data benchmarking service you choose offers cross-representation from all group purchasing organizations. It should aggregate, summarize, and analyze the savings opportunities that exist and allow you to present them in a clear, concise format that will engage your physicians, clinicians, and C-suite alike. Bottom line? Keep the goal top of mind: Gain consensus on taking advantage of these identified opportunities, then build a strategy together to negotiate with vendors and reap the savings you’ve identified.

Tim Browne is director of ECRI Institute’s PriceGuide advisory service for the procurement of medical/surgical supplies and implants.

John Strong is an independent healthcare consultant with years of experience in supply chain management, having held executive leadership positions with Consorta, Premier, and Lutheran General Health System. John is currently an adjunct professor of Purchasing and Supply Chain Management at the University of Wisconsin-Milwaukee. 

¹ The national average price represents the average of all of the prices submitted by PriceGuide member hospitals within the last 13 months for a particular item; the national “low” represents the lowest price submitted for that item.