

# Your Strategy for Continuous Supply Savings



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When times are tough and cost reductions are the order of the day, C-suite leaders often look for solutions that will bring immediate results. These one-time efforts are particularly common in the supply chain, where savings can result from a relatively simple initiative such as switching from one item to another of lower cost.

Certainly, such initiatives can be useful. But the question soon becomes, for how long? Pressure is mounting on hospitals to not only reduce direct costs, but also increase efficiency, improve margins, and support revenue-driving functions—year after year. As a result, there's a need to ensure that cost savings are repeatable, not one-time fixes. It's important to make changes that will allow the organization to reap benefits that are sustainable not just from one month to the next, but over multiple years. It soon becomes clear that significant change requires having processes in place for continuous improvement.

To achieve lasting results, hospitals must both dig deeper into the supply chain and reach out to other areas to maximize savings. It's not enough, for example, to know how much your supply spend is; organizations also should know how that figure compares with their spend from last year and the year before that, and how it compares with the supply spend from the hospital across town. Is spend appropriately reflecting changes in patient volumes or levels of acuity? For health-care providers to identify opportunities for improvement, cost and supply utilization must be broken down and analyzed.

Given today's cost pressures, organizations need to better understand how their supplies are being used in individual service areas and their potential for improved efficiencies. Equally important is developing an understanding of how supply chain relates to the hospital's overall bottom line. When supply costs increase, are reimbursement and revenue potential increasing as well?

Continuous improvement begins with establishing a baseline for supply chain spend relevant to how care is provided, defining an opportunity for improvement, measuring to ensure that any realized results equal planned results, and monitoring performance to ensure the organization is sustaining (or improving upon) the results.

## Keys to Continuous Improvement

Hospitals can implement continuous improvement processes in their supply chains by focusing on three key areas: tracking and benchmarking what spend should be, analyzing supply



use by service line, and linking supply chain to revenue cycle. Efforts in the three areas don't have to be conducted separately; ideally they will feed off one another, with data from one area driving decision-making in the others.

From reliance on benchmarking data and powerful analytical tools to good old-fashioned brain power, continuous improvement requires considerable focus. Hospitals that don't invest in resources and take the time to step back and examine whether cost-saving initiatives show continuous improvement may slide back into inefficient patterns—and miss out on opportunities for lasting change.

## Tracking and Benchmarking Supply Spend

The key to effecting lasting change? Simply put: data. "One of the fundamental principles that has to be behind any continuous improvement initiative is what I would call data-driven decision-making," says Vicki Smith-Daniels, Ph.D., a professor of supply chain management at Arizona State University, who has been researching continuous improvement processes in the supply chain for more than two decades.

Two processes that enable such decision-making are tracking and benchmarking, which help to identify gaps in performance and opportunities for improvement.

"You have to track a set of metrics," says Smith-Daniels. "And before you can track, you have to decide which metrics are important."

**Determining what to measure.** Metrics can be categorized as macro and micro. Both should be tracked regularly and

monitored for trends. At South Carolina's Greenville Hospital System, a not-for-profit academic health system with five hospitals, totaling 1,110 beds, supply spend is tracked over the entire system in three-year periods. John Mateka, Greenville's materials management director, says typical ratios to monitor at the macro level include: supply cost per adjusted patient day, per adjusted patient admission, and per adjusted patient discharge. Such numbers can offer a start for analysis and provide a good indication of the supply chain's overall performance.

Additional metrics that Mateka suggests are important to track at the macro level include supplies as a percentage of operating expense and as a percentage of net revenue. Trends in these areas have been changing dramatically over the past five years, so it's important to understand the dynamics behind them. Materials managers often can help determine whether opportunity exists to trim cost.

In particular, comparing supply costs in association with revenue can be revealing. Looking at data in this manner affords decision makers useful context from which to determine strategy. As an example, Mateka explains, "Your supply spend may be going up, but if you have corresponding revenue with that supply spend, then it's not necessarily a bad thing—as is often seen with high-tech products."

Also, case-mix adjusted factors should be included in all ratios. Examining even deeper, Mateka tracks the performance of specific product categories, such as medical-surgical supplies. In this review, he notes that it's particularly important to exclude implant and pharmaceutical costs because they can skew the data significantly.

It's also important to break these costs out so it's possible to see how each major category affects the overall supply ratio, Mateka adds. "You also may want to take a look at some of the other categories, such as office supplies, housekeeping—things of that nature."

Such data can help identify where changes are occurring and potential problem areas, particularly when supply costs are rising. "By delving into the source of discrepancies, you can then start to identify cause and course of action," he says.

Finally, the third tier of data focuses on the adjusted supply cost ratios at the service line level—or per unit of service. In the operating room, for example, the supply cost per OR case is tracked; in nursing, it is supply cost per admission for that unit. Tracking such data not only pinpoints changes in supply cost ratios, but also helps keep departmental managers engaged in the supply chain, Mateka says.

At some hospitals, this benchmarking of spend at the service line level is being taken even further. Instead of relying solely on case-mix adjusted ratios, some organizations are beginning to compare themselves with like facilities based on actual mix of patients seen and procedures performed. Such comparisons can provide a strong sense of spend efficiency in relation to the acuity of the patient encounter, an area often explored when working with physicians to identify opportunities for improved utilization and cost. (See sidebar on page seven.)

**Identifying what may be missing.** While tracking supply spend is key, Smith-Daniels says there are related metrics that hospitals often miss. Tracking spend only measures outcomes, not what led to those outcomes. "So understanding the drivers that have impacted spend, and how you might measure those drivers, also can be important for continuous improvement," she says.

Two metrics that hospitals should also monitor are total spend on-contract versus off-contract and entitled rebates. Such numbers are important to track because they offer opportunities for driving down supply expense, Smith-Daniels says. A hospital can try to put more spend on-contract and take advantage of more rebate opportunities. "You need to be tracking not just the outcomes—answering 'How much did I spend?'—but also tracking those actionable decisions that impact spend," she says.

**Recognizing the importance of benchmarking.** Such data take on real value when benchmarking is employed. Comparing performance levels across a certain period of time and range of peers allows hospitals to note trends and see where there is room for improvement. Solid benchmarking strategies employ the use of both external and internal data.

## Include Physicians

Discussions of a hospital's supply spend strategy require physician perspective and buy-in to be productive.

- Provide data to users and seek their input around cost-saving measures.
- Consider a dedicated physician adviser role to act as a liaison between finance/materials management and physicians.
- Seek physician input early on to identify potential effects of supply use and quality and efficiencies in delivering care.

A number of entities, both not-for-profit and for-profit organizations, offer benchmarking data. One of the challenges, however, has long been in coming up with normalized data—in other words, establishing an “apples to apples” comparison. Mateka provides the example of one hospital’s supply cost per adjusted patient day ratio being quite high compared with the benchmarked data. Closer examination revealed the benchmark data were not taking into account acuity and surgical differences between the benchmarked hospitals represented in the peer group. “They may do fewer procedures requiring implants, or they may have a different patient mix that caused their cost to be lower—and you begin to see that better performance is not really about their efficiency; it’s about their business model,” he says.

To obtain a comprehensive perspective, Mateka uses data supplied by a GPO as well as industry benchmarking tools.

Three years ago, Greenville Hospital System’s supply cost per adjusted patient day/case mix index as well as total supply costs were trending upward by about 10 percent. After a review, it was evident the trend was due to escalating costs and volume in the cardiac and orthopedic service lines. Physician-supported “cap costs” contracts were put in place, reducing the implant costs by about \$3.5 million. Understanding the ratios assisted in identifying the target areas for attention, Mateka says.

When used appropriately, external benchmarking data can be useful. Still, Mateka says he finds it most useful to first engage in benchmarking against past internal performance. “You have meaningful, consistent numbers, and you know what you’re measuring reflects your business exactly,” he explains, noting that the organization is then best positioned to identify trends and potential cost-reduction opportunities. “Once you have a good understanding of internal performance, then you can begin looking at external comparisons as general guidelines for your supply chain strategies.”

**Tracking results and measuring the impact.** Clearly, tracking and benchmarking can bring about a desired objective. The problem is that most hospitals stop such processes once it’s believed those objectives have been achieved. So, for example, benchmarking is used to set competitive pricing levels for knee implants, and a vendor agrees to renegotiate its contract to meet those lower prices.

Mission accomplished? Not so fast.

It’s important to continue tracking and benchmarking to monitor actual outcomes, says Dennis Maher, vice president of supply chain for Sutter Health, Sacramento, a not-for-profit

system of 27 hospitals in five regions in Northern California. “We don’t want to fool ourselves into thinking that we’ve accomplished something and not actually see it in a benchmark,” Maher says.

By employing pricing standardization in the cardiac and orthopedic lines across all five regions, Sutter Health has tallied \$14.5 million in savings and will end up at an estimated \$22 million, which will equate to an 18 percent to 20 percent costs savings, Maher says. But the system may never reach that estimate if there isn’t a constant review of progress and tracking of cost to ensure that price creep doesn’t eat away at results, he says.

That’s exactly what was happening at one Sutter hospital. After reviewing savings data 60 days into the new pricing, Maher found that results weren’t meeting expectations. Maher detected the variation by tracking and comparing the results of the pricing strategy at hospitals within the system. The cost savings weren’t as high at the one hospital because of the unplanned switch to a higher-priced supply for a knee implant. If not addressed, the expected \$1.7 million in savings would have been reduced to \$1.2 million, Maher says. “It’s still a nice savings, but you’ve given away half a million dollars,” he says.

Measuring real versus planned results is still not the end of the process, however. If hospitals are really committed to continuous process improvement, Smith-Daniels says they must not only track any real savings, but also track the resources used to achieve them. This requires comparing the cost of the FTEs and technology used to make the improvements with the actual results.

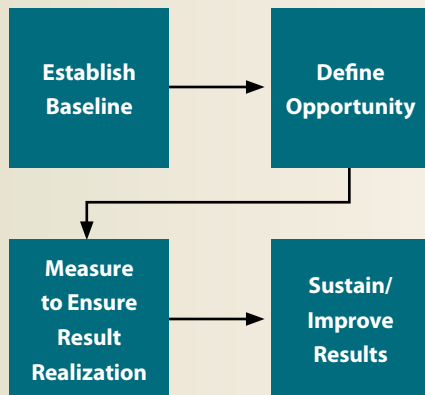
“It’s important that you identify the potential savings and that you measure whether you’re actually achieving them,” she says. “Continuous improvement looks at the issue from a much broader perspective than just driving down costs.”

## Analyzing Supply Use by Service Line

Measuring overall supply spend offers a useful view of supply chain performance. But to uncover any problems and know where to implement solutions, it’s necessary to dive directly into where supplies are used—the service line.

“In my view, on the supply side, we’re likely not to see system change until we are benchmarking both internally and externally at the service line level,” says Smith-Daniels.

### Steps for Continuous Supply Chain Improvement



Service lines—cardiac, orthopedics, radiology/imaging, for instance—are the clinical areas that generate revenue for a hospital. A profitable service line is based on having a good budget that employs internal and external benchmarking to target supply costs and understanding what is driving those costs, Smith-Daniels says.

**Driving service line accountability.** One of the problems that makes continuous improvement so difficult to reach, however, is that too often no one person is accountable for results at these “profit centers,” says Smith-Daniels. Rather, authority may be centralized with materials management at either the hospital or system level. “Although a strong central supply chain needs to provide overall continuity, you can’t drive performance improvement if you don’t make someone accountable at the service line level,” she says.

Smith-Daniels adds that if supply use is not analyzed where the supplies are used, there may be a disconnect between use and accountability. “This is business management 101,” she says. “You align accountability for improvement to the level of the decision-makers and the people who actually can impact it.”

**Bringing physicians into the fold.** Analyzing use at the service line level not only exposes problems, but also highlights where to go and who to go to for help with devising and implementing solutions. If the goal is to reduce the cost of clinical items, particularly physician preference items, Maher notes that it’s critical to get all the stakeholders involved—the department chair, the administrative directors, but especially physicians who, as users of supplies, are the real “leaders” in the supply chain.

Too often, the problem is that even though clinicians use the supplies and, therefore, drive demand, they’re not involved in costing supplies or efforts to reduce costs. Hospitals need to examine ways they can better engage clinicians in these efforts.

Data often can be used as a means for garnering this involvement. For example, along with tracking global metrics for supply spend, Maher says he also tracks spend for eight service lines across the Sutter system. When he found supply costs at one Sutter hospital were significantly higher than the rest in the region, Maher tracked the problem to the orthopedic line, where an implant was costing \$7,200 at one hospital and \$5,200 at another.

Maier determined that the hospital with the lower-priced implant had standardized to negotiate a better price with the supplier. Physicians at the hospital with the higher-priced implant, however, wanted to retain the ability to use implants from different vendors, so instead of product standardization, the hospital implemented pricing standardization. Shown the data from the other lower-cost hospital, physicians saw the need to reduce costs and essentially agreed not to use a certain implant if the vendor wouldn’t agree to a certain price.

To gain physician buy-in, Maher says he often works with the vice president of medical affairs, who helps in getting the collaboration of the chair of the service line (usually a physician). That said, what’s most persuasive is the benchmarking data broken down by service line. “We show a comprehensive picture of that service line,” he says.

Generally, when there’s a need to reduce supply costs, Maher says there are two choices: Set a price and get vendors on board with the price, or find out what products physicians use and go get them at the best price. Which option is chosen depends on the hospital’s situation. Either way, clinician involvement is crucial.

“Collaboration is extremely important because supply chain leaders should not tell people what to use—rather, they should provide dependable data to help clinicians make informed decisions,” Maher says.

## Linking Supply Chain to Revenue Cycle

Supply cost shouldn’t exist in a vacuum. Simply put: The price of supplies that is charged to the payer should reflect the cost of the supplies, and the cost of supplies generally should be covered by payment sufficient to achieve positive operating margins.

Therefore, when pricing supplies, a key consideration should be level of reimbursement. “We cannot ignore the fact that probably the biggest benchmark that we’re using right now relates to how well we are closing the gap between cost and reimbursement,” says Maher. “It is critically important for us to understand effects on profitability.”

Maher says the importance of linking costs to revenue is just beginning to become clear in health care. A few years ago, the aggregate cost for knee implants with a certain vendor at one of Sutter’s hospitals was \$5 million. Employing pricing benchmarks, the hospital was able to reduce the cost by \$700,000—viewed as a good accomplishment at the time, Maher says. These days, however, the organization would take a different approach: Maher says a better strategy would be determining the reimbursement for knee implants, then attempting to bring costs in line with reimbursement.

“We can no longer simply say, ‘We’re spending X, and we want to take it to Y,’” he says. “We don’t want to take it to ‘Y’ until we know what the impact of ‘Y’ is. That’s the critical piece—understanding what your revenue implication is when you reduce that supply expense.”

Smith-Daniels adds that it’s important to remember that revenues are not only a function of optimizing reimbursement, but also of how assets, or supplies, are used.

A surgeon may be able to take on an extra case per day and generate additional revenue only if higher-priced supplies are used. If a hospital could generate more profit through the use of higher-priced materials, such as a custom surgical pack, then it makes sense to purchase those higher-priced materials.

It’s important to select products and services that optimize reimbursement and maximize physician productivity—both of which lead to improved profits. The issue then naturally becomes how to link that supply with corresponding revenue.



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**Using the right tools.** Hospitals often already have the data necessary to integrate supply costs with revenue, Smith-Daniels says. “The issue is one of devoting the time to building the reports and changing the information system to pull those data,” she says. Essentially, supply costs, rebates, and revenues each need to be allocated to a service line. Often this requires a customized implementation of decision support tools that can support these efforts.

Fundamentally, however, linking the supply chain to the revenue cycle involves matching the revenue cycle’s chargemaster (prices of supplies that are charged to patient cases) with the supply chain’s item master (the cost of the supplies). The task may sound easy enough—but not when the revenue cycle and supply chain departments use different tools, have different staff members, and report to different executives.

One healthcare organization that is working to link the two is Florida’s Orlando Health, a system that includes seven acute care hospitals, encompassing 1,780 beds.

The system adopted a tool two years ago that allows revenue integrity and materials management information systems to share data, which means users can compare charge and cost data. By providing information such as charge code number, description, price, and volume data, the tool enables the revenue integrity staff to link the same items listed under different descriptions or different prices on the chargemaster and item master, for example.

Such capability fosters quicker, more informed decision-making. It also helps the organization identify potential process gaps.

“It shows us those supply items that have been built in the materials item master, but never make it onto our chargemaster, and so they’re just sitting in our surgery information system for the operating room nurses to document,” says Teresa Loomis, RN, corporate director of revenue integrity for Orlando Health, in the Orlando area. “It also has shown us when nurses document an item but it never gets built into our chargemaster, so it never gets charged. We can better identify these types of issues now.”

Another benefit to using the tool is the ability to track markups and fluctuations on prices for supplies. Rather than applying an annual, across-the-board percentage increase on items in the chargemaster, the organization now reviews each item for appropriate adjustments to charges. “Not until we implemented this tool and actually linked the item, acquisition cost, price in the chargemaster,

## OUR SPONSOR SPEAKS

## Measuring Effectiveness of Supply Spend

Dan Piro, president of Aspen Healthcare Metrics, a MedAssets company, describes how a healthcare organization can understand new ways in measuring the effectiveness of its supply spend.

### Q How do you know if total supply spend is “just right” for your facility?

Every hospital executive strives to deliver the best care at the best price and cost. To determine whether your supply spend is “just right,” providers need to understand how supplies are used in the delivery of patient care.

One way providers can gain this insight is to accurately benchmark against like facilities – accounting for the supply intensity for the patient population of a particular hospital. Without this methodology, hospitals often compare “apples to oranges” when trying to predict their supply expenses, since seemingly similar hospitals could have entirely different patient populations—and thus, entirely different supply expenses.

To account for the patient population when measuring supply expense, a methodology would need to:

- Factor in the actual patients a hospital treats, and the associated specific supplies used for their treatment and procedures. For example, procedural patients are more “supply intensive” than medical cases, even if the case weights are fairly similar.

- Create meaningful comparisons of overall supply spend for hospitals nationwide with similar mix of patients.
- Produce meaningful measurements as to the actual gap of supply spend between an individual hospital and similar but better performing hospitals. Understand that there are dual factors that drive overall supply costs: acquisition costs as well as proper utilization of supplies. Study hospitals that do a good job managing both.
- Consider how clinical criteria and outcomes may rationalize supply standardization considerations.

Using this type of benchmarking data, a hospital can target its projected supply expenses based on the actual mix of patients seen and procedures performed. The results help gauge cost performance versus best practice and can guide hospitals to develop a road map for improvement.

As hospitals strive to find new ways to drive operational improvements and cut costs, gaining a better handle on their supply costs is a critical step. Without an accurate picture of current performance, hospitals are limited in determining where improvements and cost savings can best be realized.

and our utilization, did we get to a point where we could actually see what the variation is and change our pricing so that we can keep the same markup on top of current acquisition costs,” says Keith Eggert, FHFMA, vice president of revenue management for Orlando Health.

As acquisition costs change, the health system’s markups also can change, which helps the organization minimize potential for erroneously discounting or overcharging for items. Eggert says the data variances are reviewed every six months to maintain consistency between acquisition price and the charge.

The tool also allows for different markup formulas for supplies according to service line or product category. Such capabilities help the organization remain market competitive while still having a relationship to cost. “So we’ve actually been able to bring prices down in the organization, while at the same time increasing the reimbursement associated with those items,” he says.

The technology also monitors volume to ensure that too many multiples of the same item are not being added, which tends to increase supply costs. It also helps ensure charges are in line with patient services provided.

**Recognizing the need to include staff.** There are a number of approaches to link data from supply chain systems to revenue cycle systems. The difference is how staff from each department work together to maximize the power of the tools available and their individual expertise. Working off this knowledge can help strengthen the link between the relevancy of the supply chain to the revenue cycle. For example, an organization's chargemaster expert—who will know coding requirements and various regulations and policies of government and commercial payers—can share that expertise when necessary with the materials manager to ensure that any changes are taken into consideration when costing supplies.

For this reason, Loomis says work is also being done at Orlando Health to improve collaboration between revenue integrity staff and supply chain staff. Currently, even though she and her counterpart in materials management report to different executives, collaboration frequently occurs. "We do communicate, and we brainstorm together about changes or things that we need to work through," she says.

There is also a corporate pricing committee that includes representatives from revenue integrity and materials management, among other departments. The committee works on keeping all of the different departments on the same page with regard to pricing supplies, Eggert says.

In addition, clinicians are involved in evaluating supplies to make sure there isn't excessive overlap of the same supply or to advise when it is appropriate to use lower-priced items, Loomis says. There are also teams that review supplies within the OR for appropriate par levels or possibilities of elimination. The job is huge and hard to tackle, Loomis says, "But we're nicking away at it, one step at a time, working collaboratively with nursing administration, materials, and the revenue cycle to try and decrease those levels and be more efficient."



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## Supply Chain Reaches the Bottom Line

In their work *Thinking About Quality: Progress, Wisdom, and the Deming Philosophy*, management gurus Lloyd Dobyns and Clare Crawford-Mason state, "Continual improvement is an unending journey."

For hospitals, the journey shouldn't stop with lowering costs. As providers continue to operate in more complex environments, sustaining results becomes equally important as achieving them.

True progress will require enhancing competencies with which hospitals track and analyze benchmarking supply data as well as improving collaboration with those at the service line level in hopes of obtaining the right materials at the right price. Equally important is understanding that service lines represent a meeting ground where costs should link with revenues.

Adopting such a perspective can help the organization identify changes that will affect the bottom line—and best prepare for the journey ahead.



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