Finding the Root Cause of Cost Variation in Care Practices

By Karen Wagner

CentraCare’s goal to reduce costs while maintaining quality became a continuous effort, not a one-time initiative.

By uncovering variation in physician care, CentraCare Health has been able to identify millions of dollars in cost savings opportunities and become better equipped to achieve its ultimate goal: continuous cost improvement.

Faced with a gap in the operating budget projected to be as high as $30 million within five years, leaders at CentraCare Health knew the six-hospital system that serves central Minnesota had to become better at managing expenses.

Although an online suggestion box produced approximately 1,500 employee ideas for reducing expenses, leaders soon realized that the health system’s technical infrastructure was not equipped to effectively manage cost reduction efforts, says CFO Greg Klugherz. Finance staff would not be able to manage the time and effort required to measure the cost reduction opportunity and then track the realized savings on an ongoing basis.

“In our legacy decision support system, there’s nothing that helps you identify opportunities very effectively or manage and monitor this process and then go beyond managing and monitoring to actually moving the idea into managers’ budgets and forecasts so they’re accountable at the next stage,” Klugherz says.

To sustain the health system’s operating margin, Klugherz also knew that cost reduction while maintaining quality had to become a continuous effort, not a one-time initiative.

Identifying Variation and Savings

In October 2014, CentraCare implemented a review-of-clinical-utilization process and application—developed with a software vendor—at St. Cloud Hospital, its main 489-licensed-bed hospital in St. Cloud, Minn. The goal was to enable the health system to more easily identify variation in clinical utilization and quantify the associated costs of the variation.

The review-of-clinical-utilization process identified 150 savings opportunities within 10 DRGs, representing about 18 percent of total volume. The cost
savings potential amounted to approximately $12 million, emanating from such areas as length of stay (LOS), supplies, imaging, and pharmacy. By focusing on reducing variation in such areas as pre-mature births, congestive heart failure, and major joint replacements, CentraCare is on track to save $2.3 million in FY15, which ended June 30.

Projected savings for FY16 from the review-of-clinical-utilization process are $6 million.

Targeting Higher Fruit
Over the years, CentraCare’s value analysis team had been successful in picking the low- and medium-hanging fruit of clinical variation cost savings with cost reduction initiatives in nursing and ancillary services, such as physical therapy, says Kay Greenlee, director of performance improvement, value, and analytics. However, getting to the granular data that would enable the team to identify the root causes of more costly care practices proved to be elusive.

“We needed to get to what we could change in care delivery at the provider level to the person who is writing the orders indicating what it is he or she needs to contribute to the care,” Greenlee says.

Using the review process, St. Cloud Hospital incorporated cost modeling and internal benchmarking to reach farther into CentraCare’s cost structure to identify variances at the service line level (e.g., orthopedics), in the subset of services (e.g., knee implants), and at the physician level (e.g., specific surgeon).

Determining True Costs
St. Cloud’s cost accounting system is the foundation for the utilization variation analysis. The cost accounting system uses advanced algorithms and allocation methods to calculate an accurate cost for each service or supply a patient receives during an episode of care. The algorithms mine the hospital’s patient-level charges and cost to identify clinical variation and quantify variation cost. The cost model was built using four sets of data:

- Patient-level charges representing all services and supplies for an encounter
- Acquisition costs of supplies and drugs
- Payroll for clinical and nonclinical staff
- The general ledger, which includes items that support the delivery of care, such as maintenance contracts for imaging equipment.

For example, an analysis is performed on patient visits, which are grouped into case types, such as total joint replacements. The analysis compares utilization practices and cost per case among physicians within the case type. Variation is then identified among physicians within a case type and among clinical cost drivers, such as supplies, LOS, drugs, blood products, and imaging utilization. Using cost-per-case data, the savings associated with reducing variation among physicians and cases is calculated.

Providing Better Value
Because St. Cloud Hospital can now easily identify variances down to the physician level, Greenlee says the time spent on value analysis is much more effective.

“We can look at our huge population and bring focus, so you’re really looking for the opportunities that you know you can do something with, that you couldn’t easily identify previously,” she says.

For example, St. Cloud Hospital identified approximately $270,000 in savings within the hospital’s congestive heart failure (CHF) population. The hospital identified those providers with the greatest opportunity for savings, including one physician group with an LOS above the hospital’s median for half of its 211 heart failure cases—a potential savings of $217,000 and about 80 percent of the total savings opportunity for the patient population, Greenlee says.

Prior to implementing the utilization analysis, much of the work in identifying cost savings opportunities was
Once a cost savings initiative has been implemented and savings goals have been set, St. Cloud leaders charged with process improvement, along with the finance department, track progress on the initiative, which has helped to reduce the amount of time the value analysis team spends crunching numbers. The team now spends more time working with physicians and clinical department leaders to improve care practices.

Previously, the value analysis steering committee would track progress on a cost savings initiative using a spreadsheet that lists the opportunity, cost reduction target, performance improvement strategy, anticipated savings, and target progress, Greenlee says. Progress reports would be manually generated on a regular basis and provided to service line leadership and department-level value analysis teams.

Now, the data on a particular initiative appear on a dashboard that enables users to drill into each cost improvement initiative. For example, if expenses are declining for St. Cloud’s CHF population, a service line director can drill into the data to see if progress has been made specifically within LOS. “It would have been very labor intensive to see that improvement before,” Greenlee says.

The ability to isolate the root cause of cost variances also enables department managers to hold the appropriate people accountable for performance improvement, Greenlee says.

Once a cost reduction opportunity with a specific physician has been identified, hospital leaders determine a course of action. For example, a physician champion or a colleague of the physician can discuss this opportunity with the physician and have data readily available to illustrate areas for possible cost savings.

“There’s so much power when you can say to a provider, ‘Your average length of stay is 5.3 days and your peers, even your high-end peers, are at four days.’ The physician doesn’t even realize that’s going on within his practice,” she says.

The clinical utilization process also helps to better identify, based on the type of savings opportunity, who is most suitable to discuss that opportunity with the physician. For instance, if the opportunity involves pharmaceutical utilization, a pharmacist or the chairman of pharmacy and therapeutics may meet with the physician, Greenlee says.

CentraCare plans to implement the clinical utilization initiative at its other critical access hospitals later this year or in early 2016, Klugherz says. In planning for FY16, CentraCare ran the review-of-clinical-utilization process on approximately 81 percent of volume at St. Cloud Hospital. The analysis found $25 million in savings opportunities. Of those opportunities, CentraCare committed to saving $6 million in FY16.

In addition, CentraCare plans to identify opportunities for cost savings in four other areas:

- Staffing and pay practices
- Care quality
- Overhead expenses—administrative and nonclinical costs
- Additional opportunities defined by St. Cloud that the application does not mine for (e.g., clinical growth, charge capture improvement)

Aside from the ability to isolate causes of cost variance, Klugherz says the key benefit of the utilization variation analysis over a typical external benchmarking analysis is the ability to leverage internal cost data to gain buy-in for cost savings opportunities from those who actually control expenses.

“This is actually our own cost-accounting data informing the decision making,” he says. “It’s an influential process because it can actually help convince people that there’s something to act upon.”

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