As payment models move from fee-for-service to value-based care, hospitals and healthcare systems are trying to reduce spending by 20% to 30% to maintain their budgets. Supply costs are usually the second largest expense after labor, and industry analysts predict they will take the top slot by 2020.

In 2013, surgical services throughout Intermountain Health, a 22-facility system based in Salt Lake City, Utah, was charged with supporting their system’s shared accountability goal to reduce the direct costs of healthcare.

“This is how we came up with the Surgical Pricing Reduction Initiative and New Growth (SPRING) project,” says Jeannette L. Prochazka, MSN, RN, ACNS-BC, clinical operations director, surgical services clinical program, Intermountain Healthcare. SPRING realized a reduction in direct costs of more than $16 million in 2013 and $43 million in 2014. By 2016, Intermountain will provide quality care to patients and control costs to keep insurance premiums for its insurance plan, Select Health, at an increase of only 1% above the consumer price index.

SPRING was built on the principles of Brent James, MD, in his Advanced Training Program through the Intermountain Institute for Healthcare Leadership, says Prochazka. “Under his direction, we know if you decrease variation, you will lower costs and have better outcomes.”

The SPRING team looked at high-volume, high-variation surgical procedures for variation in supplies and their effect on outcomes, and then they provided surgeons and staff with information on supply alternatives. They also developed and implemented a standardized Doctor Procedure Card (DPC) process to raise awareness of the staff’s and surgeons’ impact on supply consumption.

“The word ‘procedure’ was used instead of ‘preference’ because the cards are no longer based solely on physicians’ preferences,” says Prochazka.

Backing up the program is a sophisticated enterprise data warehouse supported by developers, data analysts, and data architects.

Clinical programs
The SPRING team adopted clinical programs as a way to disperse information and implement initiatives throughout the system. Clinical programs provide support from physicians and operations personnel throughout change processes.

There are 10 clinical programs and seven clinical services (sidebar above). The only differentiation is the programs are related to disease processes, and the services cross all clinical programs. One is not independent of the other.
The surgical services program is made up of physician development teams (top sidebar, p 10). “We work with them to identify best practices and suggestions on how to implement the new practice,” says Proc-hazka. The physician development teams, in turn, partner with 14 workgroups to help with implementation (bottom sidebar, p 10).

The clinical program holds guidance council meetings twice a year at each facility with SPRING nurses, OR staff, surgeons, and OR managers. The group talks about the initiatives under way with the clinical program and all ongoing SPRING projects.

“It’s an opportunity for the surgeons to hear the staff’s questions and for the staff to hear and see the data the surgeons are being shown,” says Ann Z. Putnam, MSN, BSN, CNOR, SPRING project manager, Intermountain Healthcare.

“In those meetings, we show unblinded data,” says Putnam. “Initially we didn’t have a great turnout with the surgeons, but after word got out that we were posting their names up on a screen, and they weren’t there to defend themselves, they all started coming.”

**SPRING launch**

In today’s healthcare environment, patients have accessibility to cost information and are asking questions. They want to know how much a surgical procedure is going to cost before they have it.

“Because of this, we wanted to be proactive and start giving the surgeons the cost information they needed so they could have better conversations with their patients,” says Putnam, who began structuring the SPRING project in 2013, shortly after she arrived at Intermountain Healthcare.

However, when Putnam was ready to start sharing supply cost information with surgeons and staff, she found it was legally not that simple. Many supplier contracts prevented Intermountain from sharing cost information. Capitalizing on a strong relationship with their supply chain, the clinical program worked collaboratively with the legal depart-
Putnam developed the DPC tool, which she calls a “physician procedure card on steroids.”

Originally the DPC tool was designed as an iPad app that showed the different costs of supplies on different DPCs throughout the Intermountain system. The surgeons liked what she was doing and wanted access to the app. Today the application is web based and accessible throughout the system, showing costs of supplies on any DPC and costs of similar supplies. The app also allows nurses to change and update DPCs.

In January 2014, OR staff at all of the hospitals in the system were trained on the DPC tool.

**Data sharing**

“The DPC tool alone is not what’s helping us achieve our goals,” notes Putnam. She says they are also building an arsenal of reports with the help of their data analysts and data architects, using data to build case studies with outcomes, and working with supply chain personnel on utilization and opportunities for renegotiating contracts.

“Sharing data isn’t just about sharing costs per case, it’s about a marriage of costs and outcomes,” says Putnam.

For example, the variation in cutting devices used by surgeons for tonsillecto-
mies and adenoidectomies was analyzed in a case study of 23,000 patients in the Intermountain Healthcare system. There is a significant variation in the cost of the different devices used, and the SPRING team wondered if that cost difference affected outcomes. The case study revealed no statistical difference in outcomes between the different devices, and this information was presented to the surgeons.

After talking with one another, the surgeons started making changes related to what cutting device they use. “It wasn’t nurses, or supply chain personnel, or business managers trying to have this conversation with the surgeons. It came from the surgeons asking each other why they were using the more expensive device,” Putnam says.

The difference between the Intermountain cost-per-case data and data used in other systems is the process for creating the definitions needed for the procedure cohorts, says Putnam. Currently there are 105 cohort definitions built into the system, and Putnam says they hope to double or triple that number by the end of 2015.

“With input from the surgeons, we define what is included in a procedure group. That definition is then used in all of the SPRING reports, outcomes reports, and other reports,” says Putnam.

The SPRING report shows OR time, number of OR staff, supply costs (breaking out implants separately), and variable costs such as nursing, lab, imaging, and any other aspect of utilization.

“With the SPRING report,” says Putnam, “I can drill down to different supply categories and see, for example, that one surgeon is using different endomechanical supplies than other surgeons and what his costs are compared to the other surgeons.”

This report is invaluable in engaging a conversation with surgeon outliers, she says. “I can say: ‘You are an outlier because of this device you are using. You are using this, and no one else is.’”

Graphs showing a surgeon’s trends can be printed from the report. These show room time, surgery time, case volume, supply costs and charges, and total charges and reimbursement for a particular procedure. “These are so critical when the surgeon wants to know: ‘What are my patients getting charged for this? Am I making a difference? Am I lowering costs?’” says Putnam (sidebar, p 11).

**Outcomes report**
The outcomes report shows data on the same procedure cohorts for which the surgeons see cost and case data. Data include length of stay, when patients are discharged, readmissions, preexisting conditions, and patient-reported outcomes. Because the reports run off the same cohort, surgeons can see if their outcomes are different from those of other surgeons.

**Item explorer report**
The item explorer report displays which surgeons are using a particular item, on which procedures, and how frequently. The report also displays a potential savings if a change is made. “We can review the data with the surgeons and show them the opportunities they have for savings,” says Putnam.

**DPC tool**
OR staff and surgeons use the DPC tool during every case. They can see supply costs, search for alternatives, and edit the card in the OR. Staff have access to all DPCs in the Intermountain Healthcare system.

The DPC has a history button that shows every change ever submitted for a card.
“Now when the doctor says, ‘My cards never get updated,’ I can pull up the card and say, ‘Yes, they were, and here is when they were updated,’ or ‘You are right, they weren’t updated,’” says Putnam.

Other features include an icon to add or delete an item from a card, a replace icon that shows alternatives for an item, and a look-up button that allows a user to, for example, see all of the endoclips used in the Intermountain system. One hospital might use very expensive endoclips, and all of the other hospitals use a less expensive option. Inventory specialists can use this information to make changes.

The tool also has a message center where nurses can post messages, such as: “This new sinus balloon is no longer being covered by this insurance—please let the ENT surgeons know.”

Future enhancements to the tool include highlighting preferred items. “We don’t want staff to automatically select the least expensive alternative when replacing an item on the card,” says Putnam, “or we will never meet our vendor commitments.”

Also to be added are inventory information and utilization, such as the last time an item was used.

After the DPC tool rolled out and the staff learned how to use it, Putnam says, staff members told her the tool gave them information they never had before. In 2013, there were around 6,000 changes to DPCs across the system. After implementing an application that provides access to cost information and comprehensive reports showing variation, staff made more than 32,000 changes on DPCs in 2014.

The hard work does not end here; the SPRING team is working to reduce direct costs by another $22 million in 2015. ✤

—Judith M. Mathias, MA, RN

Reference
Putnam A Z, Prochazka J L. Delivering high-quality health care for low cost: Rethinking the way we look at supplies in the OR. OR Business Management Conference 2015.