

John Byrnes

just how much value can we create?

Quality and safety programs saved more than \$250 million for several healthcare organizations.

Last month, I shared a presentation titled “Strategies for Removing Millions in Unnecessary Costs” with a group of CFOs. The presentation included a series of 10 case studies illustrating how quality programs can eliminate waste in healthcare organizations, especially hospitals.

At the end, the group added up the savings from the case studies. We were all astounded to see the total—more than \$256 million!

Programs That Make a Difference

How did these organizations generate more than a quarter of a billion dollars in savings? Here’s a quick review.

Patient safety. DeVos Children’s Hospital in Grand Rapids, Mich., decreased errors that were leading to serious safety events by more than 90 percent over four years. The hospital reduced the error rate by implementing a number of high-reliability practices, such as morning check-in and interruption-free zones, and creating a culture of safety. The impact on morbidity and mortality rates among pediatric patients was substantial.

Errors and claims avoided. Children’s National Medical Center in Washington, D.C., published a case study on the outcomes of its High Reliability Safety Program. From the program’s launch in October 2008 through December 2013, the key changes prevented 54 separate events that would

have resulted in harm to patients. The organization also calculated the savings in malpractice claims and found that the total was almost \$67 million!

Operational improvements. An unpublished project undertaken by one organization, led by a lean-improvement expert, generated \$6.7 million in savings, as calculated by the organization’s finance analysts and confirmed by both finance and clinical leaders. The project achieved these savings by focusing on the following issues:

- > On-time starts
- > Throughput and room turnover
- > Opened and unused supplies (\$3 million)
- > Preference card variation
- > Non-indicated imaging studies
- > Number of stents per case
- > Appropriateness of procedures

Medication administration. Medication errors are the most common types of errors in health care. A team of two industrial engineers and three pharmacists led a project to overhaul an organization’s medication administration process. They started by documenting the current process and found 125 distinct steps from the time the physician wrote an order to the time the patient received the medication. Following several workshops that described how to implement Toyota-style lean principles, the team reduced the number of steps to 25. Implementation of the physician order entry system was expected to reduce the number of steps further.

See slides from a presentation of 10 case studies in which healthcare organizations saved more than \$250 million through quality improvement efforts at hfma.org/QualitySavings

Generating revenue and savings. A large multi-hospital system calculated the savings and revenue impact of the quality program at its flagship hospital. The system identified revenue gains of \$32 million from a variety of pay-for-performance programs and savings of \$36 million from quality improvements, for a total impact of \$68 million. Reductions in complications and length of stay accounted for the majority of the savings.

Impact of a quarter-time physician leader. One organization's experience underscores the value of part-time physician leaders. A quarter-time leader, for example, can run at least three quality improvement projects, which can produce substantial savings if the focus is on improving patient outcomes. In this case, a quarter-time physician leader used an opportunity analysis to calculate the savings from eliminating seven preventable complications in major colon surgery, and found potential savings of more than \$3 million.

Keep in mind that such a project is only one of three the leader could oversee, and that a quarter-time physician leader costs only about \$70,000 per year. The ROI generated by such leaders clearly is staggering. Based on these returns, I would hire a part-time physician leader for every major service line and department.

Preventable complications. An opportunity analysis performed for a small hospital system about four years ago quantified the potential savings from reducing preventable complications and found that more than 2,000 complications at the hospital exceeded the expected rate. The approximate savings opportunity surpassed \$60 million.

Preventable complications, part II. Another study estimated the savings opportunity that remained 10 years after implementation of a highly successful clinical improvement program in a 900-bed hospital. Complications were ranked by their frequency and cost impact on the organization. The overall opportunity exceeded \$45 million, with the top six complications—including several types of acute renal failure, and kidney injury, respiratory failure and urinary tract infections—showing potential savings of more than \$12 million.

Healthcare-associated infections (HAIs). Hand washing has a tremendous impact on infection rates, as illustrated by a study at a large tertiary referral center. At one organization, an initiative to encourage hand washing increased compliance to more than 95 percent, compared with 80 percent before the initiative. In the 12 months after the initiative, the organization had 126 fewer severe HAIs than it did in the 12 months before, representing more than a 40 percent decrease—for a savings of \$1.8 million.

Avoiding readmissions. Depending on your organization's payment structure, this area may not be seen as a savings opportunity. But let's assume you're in an environment in which readmissions are not reimbursed or are penalized, as is the case in Medicare's Readmissions Reduction Program, or that you're operating in a bundled payment structure. One organization's efforts to reduce readmissions associated with seven conditions (hysterectomy, lumbar fusion, pediatric chemotherapy, acute myocardial infarction, percutaneous coronary intervention, electrophysiology ablation, and cholecystectomy) resulted in \$4.5 million in avoided costs.

Significant Rewards

Each study used a slightly different approach, but all the approaches can be used by any health system and hospital in the country. The great thing about these tools is that they improve our patients' outcomes also, leading to fewer complications, readmissions, and infections—and better mortality rates.

All the financial results I shared were calculated by finance professionals, but those who like to question numbers should feel free to cut the results in half. It's still a ton of money. ■

John Byrnes, MD, is clinical associate professor at the Michigan State University College of Human Medicine, founder and senior partner of Byrnes Healthcare Group in Grand Rapids, Mich., and a member of HFMA's National Board of Directors and HFMA's Western Michigan Chapter (john@johnbyrnesmd.org).