THE POWER OF ZERO: STEPS TOWARD HIGH RELIABILITY HEALTHCARE

By Ellen Lanser May

After observing bedside handoffs during morning rounds at Greater Baltimore Medical Center, President and CEO John B. Chessare, MD, FACHE, decided to walk through a few other units on the way back to his office. As he turned a corner, Chessare nearly bumped into a stretcher—and soon after, he came across a cart nestled into an alcove. Neither pieces of equipment were where they belonged.

In the midst of implementing an "everything in its place" system, Chessare was disappointed to find such clutter. He approached a nearby nurse to find out why the equipment was stored in places it did not belong. Her answer was straightforward: Because she was afraid she would not get the equipment back when she needed it.

"This interaction exemplifies a dominant belief in U.S. healthcare," Chessare says, "which is that individuals within the system can choose in the moment to do whatever appears to be the right thing to do to get whatever they need to care for the patient. What they don't understand is that in a complex system, once one person violates the design, the system is denigrated. Every time someone hoards equipment, it is less likely that someone using the system correctly is going to get the equipment they need, when they need it."

For Chessare, "what should happen happens and what shouldn't does not" is the basic principle of what it means to be a high reliability organization (HRO)—one of GBMC's most important goals. Chessare's belief gels with the definition put forth by Mark R. Chassin, MD, FACP, president of The Joint Commission and Joint Commission Center for Transforming Healthcare, and Jerod M. Loeb, PhD, executive vice president, Division of Healthcare Quality Evaluation, The Joint Commission, in their 2011 *Health Affairs* article, "The Ongoing Quality Improvement Journey: Next Stop, High Reliability." Chassin and Loeb state that an HRO is an

organization that maintains consistent excellence during an extended period of time. Across the healthcare field, HRO status is viewed as the next step in the pursuit of quality and safety improvement.

Although no healthcare organization can yet call itself an HRO, an increasing number of hospitals and health systems are making that achievement their end game—and leadership has a responsibility to make high reliability a priority. Following are several ways leaders can align the culture and practices of their organizations to meet that goal.

Developing Collective Mindfulness

In their delineation of HROs' key characteristics, Chassin and Loeb emphasize collective mindfulness, which means that "everyone who works in these organizations, both individually and together, is acutely aware that even small failures in safety protocols or processes can lead to catastrophic adverse outcomes." In conversation, Chassin adds that this heightened awareness represents a "passionate commitment to excellence" that permeates the daily actions of workers, producing a culture so effective that nearly perfect safety procedures are the norm.

With 477 licensed beds, Owensboro (Ky.) Medical Health System exemplifies collective mindfulness in action. Since selecting quality as its No. 1 priority in 2005, hospital leaders have been strategically moving OMHS closer toward HRO status. In fact, OMHS has achieved a hospital standardized mortality rate (HSMR) of 47.8, which is 20 percent lower than the national average; interestingly, OMHS' HSMR numbers began shifting in the same year that its board declared the quality focus. Lisa K. Jones, DSc, FACHE, vice president of clinical services at OMHS, believes that fostering collective mindfulness is the essence of her organization's plan. "In 2012 alone we implemented our first EMR and prepared to move into a new replacement facility. In the face of two monumental changes like this, it would be easy to become distracted from our HRO work and tackle it later," says Jones. "But we have very intentionally incorporated high reliability into everything we do. It's not just a 'strategy'—it is the prevailing, defining attitude in our organization."

Because leadership commitment is an integral part of high reliability, every morning since December 2011, 50 top OMHS leaders meet for 10 minutes to discuss safety events from the previous 24 hours and anticipated events within the next 24. These daily check-ins can help uncover potential safety issues while they are still developing. Recently, OMHS had been targeting patient falls and developing specific interventions to reduce them. At one point leaders noticed a slight uptick in the number of occurrences. When the issue was raised at the daily check-in, facility leaders reported that they had just changed the brand of floor wax—a variable that may have been overlooked were it not for the high-level, safety-focused meeting. As a result, OMHS leaders swiftly addressed the problem before it escalated. As of this writing OMHS has reduced patient falls by 75 percent, and its rate of hospital-acquired pressure ulcers—another HRO-oriented target—to zero.

OMHS' daily check-ins—a strategy acquired through an HRO collaborative sponsored by VHA using the consulting firm Healthcare Performance Improvement—epitomize the type of systematic process that works so successfully in other risk-prone fields. "Chemical and nuclear plants maintain safety

"We have very intentionally incorporated high reliability into everything we do. It's not just a 'strategy'—it is the prevailing, defining attitude in our organization."

LISA K. JONES, DSc, FACHE
Owensboro Medical Health System

because every person in the organization searches for some small thing that was different from the day before that might indicate that a process isn't working as well as it should," says The Joint Commission's Chassin. "These organizations use effective tools to fix those small problems before they erupt into very risky situations. That's not the norm in healthcare. We are, unfortunately, too often faced with a patient who has been harmed, and we have to work backward to conduct an adverse event investigation and root cause analysis to understand why the harm occurred and how to prevent it from happening again. Of course, that's the right thing to do, but it is not the way high reliability organizations stay safe."

Healthcare organizations like OMHS, however, are determined to change that.

Designing for Zero

As Chassin notes, industries such as aviation and nuclear power succeed in preventing harm by implementing systems that not only enact the concept of collective mindfulness but that also pursue a zero-defect environment. Skeptics in the field say that striving for zero harm is a quixotic endeavor, creating a reluctance among leaders to commit to something that is seemingly unachievable. "The first problem with that view is that if we're not setting the ultimate goal at zero, we won't expect major progress," says Chassin. "We will be content to become just a little bit better."

But some hospitals and systems *are* making the commitment to becoming HROs and reaching zero on several very important outcomes. Several of these successful organizations participate in the Joint Commission's Center for Transforming Healthcare. Established in 2009, the Center facilitates systematic approaches that analyze breakdowns in care, discover their underlying causes and devise targeted solutions. The proven solutions—developed using high reliability methods—are then shared with the more than 20,000 healthcare organizations The Joint Commission accredits and certifies.

One of the project team hospitals that has worked with the Center since its inception is Cedars-Sinai Medical Center in Los Angeles. In his more than 34 years at Cedars-Sinai, President and CEO Thomas M. Priselac has supported the strong safety culture that has persisted throughout his organization. When the Center was created, Priselac and his team believed Cedars-Sinai's participation reflected a broader organizational value of partnering with like-minded organizations that share a passion for high reliability work. The Joint Commission Center for Transforming Healthcare and its participating organizations use Robust Process Improvement (RPI) methods and tools to improve the quality and safety of healthcare, including the Targeted Solutions Tool. The TST offers healthcare organizations a step-by-step process to measure actual performance, determine barriers to excellent performance and identify proven solutions that are customized to each organization's particular barriers. Currently, the tool—which is based on the methodologies of Lean Six Sigma and change management—is available for hand hygiene, wrong site surgery and hand-off communications. Surgical site infections, preventing avoidable heart failure hospitalizations, creating a safety culture, reducing sepsis mortality and others will be added to the tool as the Center completes these projects.

> "When you design for zero, you surface different ideas and approaches that if you're only designing for 90 percent, may not materialize. It's about purposefully aiming for a higher level of performance."
>
> THOMAS M. PRISELAC
> Cedars-Sinai Medical Center

Cedars-Sinai's Priselac notes that his organization's approach is a philosophical one. "It is critically important to design for zero even when it may not be theoretically possible," he says. "When you design for zero, you surface different ideas and approaches that if you're only designing for 90 percent, may not materialize. It's about purposefully aiming for a higher level of performance." With the Center, Cedars-Sinai has focused on several areas for improvement with great success:

Hand Washing: At the beginning of its "Zero Is the Greatest Number" campaign to increase compliance in this area, Cedars-Sinai's compliance rate was between 65 and 68 percent. After the first 18 months, compliance rose to 95 percent, and as of this writing, the rate is 98 percent, where the organization has remained for the past 18 months.

Surgical Site Infection: This project targeted preventing infection following colorectal surgeries, a procedure particularly vulnerable to surgical site infection. When Cedars-Sinai began intervening, the infection rate per 100 procedures was 15.5; today, it is less than 5.

Readmissions: Cedars-Sinai leaders examined the 30-day all-cause readmission rate among its heart failure patients. When the hospital established its goal with the Center, initially it sought to reduce its rate by 50 percent from the baseline of 24 percent within 12 months. Within eight months, that goal was met, and Cedars-Sinai is poised to move well beyond that.

Ventilator-Associated Pneumonia: Independent from Cedars-Sinai's work with the Center, for the period January through October 2012, the VAP rate at Cedars-Sinai was five incidences out of 9,580 ventilator days. During that 10-month period, zero cases of VAP occurred anywhere at Cedars-Sinai in six of those 10 months. This rate is more than 70 percent below the average for similar hospitals in the National Healthcare Safety Network. "What is especially remarkable is that our success is occurring in a high-acuity patient population associated with the advanced clinical services we provide in heart, neurosurgery, neurology, cancer and organ transplantation and a patient population that skews much older than other facilities," says Priselac.

Priselac believes his organization's success with aggressive goal setting has much to do with leadership at all levels of the organization. "Leadership is about driving change," he says. "If you have people throughout your organization who are first committed to that change and then to establishing far-reaching goals, you are well on your way."

Focusing on Relevant Measures Systematically

While most healthcare organizations target quality goals set by outside organizations such as The Joint Commission, Medicare or Leapfrog Group—which is vitally important work—HROs go further by addressing the most significant *internal* quality failures by examining their own processes. "As they strive for high reliability, organizations shift away from having outside bodies solely determine their quality agenda to developing an agenda that incorporates the organization's most important goals," says The Joint Commission's Chassin.

"As they strive for high reliability, organizations shift away from having outside bodies solely determine their quality agenda to developing an agenda that incorporates the organization's most important goals."

MARK R. CHASSIN, MD, FACP
The Joint Commission and Joint Commission Center for Transforming Healthcare

Greater Baltimore Medical Center was experiencing a high rate of central line-associated blood stream infections (CLABSI), so the organization targeted this area and discovered that there really was no standard work practice executed internally. "Despite the evidence supporting best practices, staff held onto the belief that it was okay to insert catheters the way that they were most comfortable practicing," says GBMC's Chessare. Leaders gathered a team, conducted research and came back with the Institute for Healthcare Improvement bundle to address CLABSI. In the third quarter of fiscal year 2008, GBMC experienced 11 CLABSI for a rate of 3.9 per 1,000 central line days. Now, with a standardized practice in place, in the first quarter of fiscal year 2013, three CLABSI were reported for a rate of one per 1,000 central line days. "Now, when we experience a CLABSI, our staff reacts by asking 'how could this happen?'" says Chessare. "They are much more eager to find the cause and remediate it—and to move us closer to a rate of zero."

Valuing Visceral Reactions

GBMC's vision is to become a healthcare system in which every single patient receives the same care that GBMC's staff members would want provided to their own loved ones. The organization's leaders have boiled that vision down to one phrase: "What if it was your daughter?" Those six words have become the platform for change that has propelled the entire organization forward. "We begin every presentation, every program, every meeting with a slide bearing that phrase," says GBMC's Chessare. "If you knew that there was a proven, best practice for preventing your daughter from acquiring an infection from a central line insertion, wouldn't you want that?"

While he acknowledges that up-to-the-minute data is critical to his organization's success, Chessare believes the commonly held assumption that doctors need data first in order to change is misleading. "We have found that while data is compelling, it's not the data that moves people—be they physicians, nurses or nonclinical staff—to action. More often, a visceral reaction to a story forges an emotional connection to a problem. We want to bring the measurements to life."

Similarly at Owensboro Medical Health System, for any meeting guided by an agenda—whether it is for the board, management or a team within a unit—the first agenda item is always a patient safety story from a staff member. This protocol succeeds on two levels: connecting OMHS' staff members to a real experience within their organization and demonstrating transparency in the organization's commitment. "Furthermore, regardless of what the meeting is about, having a patient safety story at the top of the agenda shows that we never want to lose sight of the fact that it is our No. 1 priority," says OMHS' Jones.

For Chessare, humility and a willingness to learn are absolute requirements in the quest for high reliability. From there, he advises today's healthcare leaders to "roll up our sleeves and get busy on the redesign to create a more reliable, harm-free system for our patients."

Ellen Lanser May is a freelance writer based in Naperville, Ill.

Editor's note: Please see related sidebar on pg. 26.

> "We have found that while data is compelling, it's not the data that moves people—be they physicians, nurses or nonclinical staff—to action. More often, a visceral reaction to a story forges an emotional connection to a problem."
>
> JOHN B. CHESSARE, MD, FACHE
> Greater Baltimore Medical Center

South Carolina Safe Care Commitment

Led by a motivated state hospital association, many South Carolina hospitals have designed and implemented several successful collaborative healthcare initiatives. In the management of heart attack care, the average door-to-balloon time across the state dropped from 93 minutes to 49 during a five-year period (2006–2011). Central line infections decreased by 67 percent statewide in two years (2010–2011).

"With these accomplishments, we were eager to tackle the next big initiative but weren't entirely certain what direction to take," says J. Thornton Kirby, FACHE, president and CEO of the South Carolina Hospital Association. "It was around that time that we heard Mark Chassin from The Joint Commission speak about achieving high reliability as the endgame for healthcare."

Partnering with The Joint Commission Center for Transforming Healthcare and the state Medicaid agency, the SCHA is currently embarking on a statewide initiative known as the South Carolina Safe Care Commitment—a multiyear engagement that will focus on the key components of high reliability: leadership, safety culture and process improvement. The collaborative includes a core group of hospitals that will each complete the High Reliability Self-Assessment Tool, which will identify their weaknesses and strengths and their maturity toward achieving high reliability—beginning, developing, advancing or approaching. According to Kirby, the goal of the South Carolina Safe Care Commitment is that each hospital will not only see its strengths and weaknesses when it comes to high reliability but will also learn key strategies for maturity.

Although much has been written about high reliability organizations in other industries, the amount of practical guidance for healthcare organizations is almost nil. And that is why the work of the hospitals participating in the South Carolina Safe Care Commitment is key.

"There's nothing in the high reliability literature that demonstrates how to move a hospital or health system from low to high reliability in the real world," says Mark R. Chassin, MD, FACP, president of The Joint Commission and the Joint Commission Center for Transforming Healthcare. "That has great implications for what we need to do in healthcare. We must create our own road maps. That's what The Joint Commission has done. We have charted a pathway that takes into account where healthcare is today and describes specific next incremental steps. The findings of the South Carolina Safe Care Commitment will go far in demonstrating to the field what exactly it takes to become a highly reliable healthcare organization."