Transforming the Pediatric Safety Culture

To Katy Welkie, chief executive officer of Primary Children’s Hospital in Utah, safety is a mission, not a strategy.

By Diana Mahoney

Superheroes, real and fictional, can be found everywhere at children’s hospitals. The real ones, dressed as doctors and nurses, are at patients’ bedsides and in the operating rooms, exam rooms and nurses’ stations. The fictional ones—Superman, Wonder Woman, Spider-Man and the like—decorate the walls, dot the books in the waiting areas and sometimes rappel down the sides of the buildings as they wash the windows, much to the delight of the young patients peering at them from the other side of the glass.

The real superheroes save patients’ lives; the fictional ones brighten them. Occasionally they are one in the same, as they were one day last year at Intermountain Healthcare’s Primary Children’s Hospital, when CEO Katy Welkie and colleagues donned costumes and transformed themselves from health care leaders into Zero Harm superheroes. The costumes put a fun and public face on a serious mission: the elimination of preventable errors.

Primary Children’s Hospital is a 289-bed, nationally ranked academic pediatric medical center serving Utah, Idaho, Wyoming, Nevada and Montana. Welkie, who has held various positions at the facility for more than 30 years, leads the hospital’s Zero Harm patient safety initiative. This multiyear journey to high reliability targets the elimination of preventable errors across all aspects of care, influences how leaders view and analyze safety events and investigate causes, and informs the way units and services are organized for patient safety.

“The Zero Harm model comprises a set of tools that empower staff to listen and respond and create the best environment for every child to be safe and helped,” said Welkie, who previously served as the hospital’s chief operating officer, chief nursing officer and nursing director of the pediatric intensive care unit. “The model also requires that every staff member and physician engages in a set of very specific error-prevention techniques.”

A key component of the Zero Harm culture is the adoption of what the team calls “Maya’s Rule,” in memory of one of the hospital’s young patients. It is based on the concept that every employee across the organization has an absolute obligation to speak up for safety. Invoking Maya’s Rule is like pressing the “stop” button. “It means ‘Stop. Something is wrong. We need to figure this out before we proceed,’” said Welkie. “Safety is our highest priority. We can win awards, provide compassionate care and even have miraculous breakthroughs in science, but if we fail to keep our patients safe, all of that pales.”

The model’s success to date—including a 90% or higher cumulative compliance on every national patient safety goal, a 95% reduction in ventilator-associated pneumonia rate, a 75% reduction in central line-associated blood stream infection rate and a 25% reduction in serious safety events—has led to an expansion of the program to all Intermountain Healthcare facilities.

Welkie’s commitment to safety, together with her focus on quality improvement and leadership through periods of growth and expansion (as CEO, she oversaw the completion of the 230,000-square-foot, six-story Eccles Outpatient Services Building last fall), helped Welkie earn the Utah Hospital Association (UHA) Distinguished Hospital Executive Award for 2015.

In this month’s leadership Q&A, Welkie provides insight into Primary Children’s Hospital’s high reliability journey.

**Q:** As it relates to an integrated pediatric health care system, what does high reliability “look like”?

**A:** Our perspective is really more from an overall health care system, as Primary Children’s Hospital is part of Intermountain Healthcare, an integrated health care system that includes hospitals, physician practices, a health insurance company and home-based health and other health services. While our hospital has been on the high reliability journey for a couple of years, our system as a whole only recently began its high reliability journey. I can envision applying the principles of high reliability to the problems of integration and coordination so that patients can move seamlessly through the continuum of care without
experiencing hassles, delays or handoff failures. For now, we’re working to establish some universal commitments to safety on the part of all Intermountain physicians and staff. We’re learning to speak a common language with regard to error prevention and causes of failure.

**Q:** Where would you say children’s hospitals as a group fall on the spectrum of reliability?

**A:** This is a mixed answer. I’m a believer in the idea that the first step to recovery is admitting you have a problem. Children’s hospitals have admitted they have a problem, and we are actively working on ours. However, children’s hospitals (like hospitals in general) are far from the ideal of high reliability. Yes, we have fantastic people who are extremely mission-oriented. Our hospital embraces the philosophy of “The Child First and Always,” and I think that notion rings true for children’s hospital physicians and staff throughout the world. The reality, however, is there are very few processes that children’s hospitals perform correctly nearly 100% of the time: hand washing, following evidence-based protocols, central line bundles, correct diagnosis and so forth. We strive for perfection in all of these things, but we consider 90% to 95% to be excellent performance. This is a far cry from the Six Sigma standard that is the benchmark in other industries. Now consider how we as children’s hospitals perform on some of the hundreds of policies and practice standards that receive less management attention. We have a long way to go.

There may be some good explanations for our struggles with reliability. We live in a world of personalized care and variation. Every child is unique, and it’s appropriate to adapt and vary our approach to care according to the needs of the patient. Amid all of this appropriate and necessary variation, it’s easy for us to lose sight of the fact that our own adherence to standards shouldn’t vary. A high reliability organization is preoccupied with failure, whereas children’s hospitals often tend to celebrate successes and extraordinary achievements while inadvertently becoming tolerant and insensitive to failures of mundane processes and systems.

The good news is that, as a group, children’s hospitals now are joined together in the journey toward high reliability. Solutions for Patient Safety (SPS) is a national network of children’s hospitals dedicated to achieving dramatic improvements in patient safety through the application of high reliability principles. We adhere to an “all teach, all learn” philosophy. We’re dedicated to the idea that we don’t compete with one another on safety. Rather, each of us helps the rest to become better. My hospital is learning a great deal from other children’s hospitals, especially those that have been on the high reliability journey for many years. We’ve been doing our best to contribute our good ideas to the group. I’m proud to sit on the board of SPS and grateful to the Ohio children’s hospitals, which led the way in forming the national network.

**Q:** What are some of the unique challenges/obstacles to high reliability in the pediatrics setting?

**A:** The pediatrics setting is extraordinarily dynamic. Kids are amazing, but they bring their own challenges. When they don’t feel well they often cannot explain the problem. The right treatment is dependent in part on the age, physical development and cognitive development stage of the child. Family dynamics are often complicated. When we treat kids we need to partner with their parents in making decisions and providing care.

These factors make working in pediatrics extremely interesting and exciting. This also translates into a large amount of variation. Variation poses great challenges to the pursuit of high reliability. Doing the right thing, the right way, every time, is especially difficult when the right thing to do is dependent on such a range of factors. So, yes, there are some unique challenges to high reliability in the pediatrics setting. On the other hand, we have a gigantic advantage as well: our dedication to our mission, which is to keep children safe and make children healthy. We’re dedicated to providing care in an atmosphere of love and concern. No other industry has a more important or motivating mission. That mission provides the impetus to move our hospitals forward.

**Q:** Why are traditional quality improvement strategies on their own not sufficient to move the needle on safety and reliability where it needs to be?

**A:** Quality improvement has been, and always will be, an absolutely essential element of our journey to high reliability. As part of Intermountain Healthcare, Primary Children’s Hospital is blessed to have direct access to some of the best health care QI teachers and resources in the world. Many of our leaders and physicians receive training from Intermountain Healthcare’s Institute for Health Care Delivery Research, under the direction of Dr. Brent James. We measure performance and outcomes. We map and redesign processes. We standardize care process models and drive out unnecessary variation.

All of this has led to great advances in a wide variety of outcome measures. It’s only recently that we were introduced to the culture-building approach to high reliability and safety through HPI [Healthcare Performance Improvement, now part of Press Ganey] and the SPS hospitals. We’ve found the leadership methods and error prevention techniques are completely complementary to our QI approach.

Even in an organization dedicated to continuous improvement, processes have gaps and system failures occur. But armed with a dedication to safety and a grasp of specific error-prevention techniques, our staff and physicians can work together to keep patients safe despite these problems.
More importantly, our focus on the culture of safety has inspired our people to identify and report process problems that they might have ignored in the past. This allows us to apply our QI methods to fix the causes of those problems. Through the synergy of our traditional QI approach and our new focus on culture, we’ve tackled more process improvements to increase patient safety over the past year than in any previous year.

**Q: What are some of the ways you and your team are translating high reliability constructs into practical improvement strategies?**

**A:** Daily huddles have been a great strategy for us. Every day, on every unit, staff and physicians huddle to discuss and address safety concerns. Some of those concerns are escalated to our hospital-wide daily safety brief so that senior leaders become aware of them.

Through these strategies, we’ve become much better at closing the loop on identified problems and disseminating important information among our hospital community. We’ve found that sharing safety stories at every meeting and rounding-to-influence are tremendous strategies for reinforcing critical behaviors. Our peer safety coach program has been hugely successful at leveraging the enthusiasm and expertise of front-line staff.

**Q: How do you consistently assess reliability, and how do you evaluate improvement strategies?**

**A:** We take both a quantitative and a qualitative approach, measuring and reporting a wide range of key metrics. We’ve seen impressive reductions in bundle compliance rates and performance to traditional safety standards. Our safety coaches make observations, and we count the number of observations of correct safety behaviors. We interview staff and physicians to determine their knowledge of error prevention techniques, and we quantify the results. An annual survey measures staff perceptions, attitudes toward safety and willingness to speak up, which helps us make continual improvements in our care and processes.

We also monitor a battery of hospital-acquired conditions, and we’ve seen steady improvements. We closely track our 12-month serious safety event rate as well as employee injury rates. Our system is in the midst of implementing an index of safety that will incorporate all of these metrics.

Just as important, we do a lot of rounding, observing, talking to staff and physicians and seeking input from patients and families. All of this gives us a good idea of what is working and what is not. We drill down into problem areas and brainstorm new approaches. And through HPI, SPS and the Child Health Patient Safety Organization [a federally registered organization that enables children's hospitals to share safety event information to accelerate the elimination of preventable harm], we benchmark and compare notes with other hospitals around the country.