Before 2006, many people at Houston-based Memorial Hermann Healthcare System assumed that hospital-acquired infections were an inevitable drawback of medical care. Central line-associated bloodstream infections or ventilator-associated pneumonias were viewed as unavoidable side effects of hospitalization. Indeed, a CLABSI rate of 9 per 1,000 central line days or a VAP rate of 6.1 per 1,000 ventilator days was not seen as unusual. Fast-forward five years and MHHS’s CLABSI rate had plunged by 86 percent while the adult VAP rate was down 81 percent.

In recognition of this achievement, the Texas Hospital Association has honored MHHS with the 2011 Bill Aston Award for Quality in the academic/large teaching hospital/health care system category. Established in 2010, the award recognizes a hospital’s or health care system’s measurable success in improving quality and patient outcomes.

through the sustained implementation of a national and/or state evidence-based patient care initiative. The award will be presented Feb. 2 at the THA 2012 Annual Conference and Expo in Austin.

Change from the Top
As often happens in success stories, the seeds of change sprouted at the top. In 2006, the MHHS Board of Directors appointed Michael Shabot, M.D., the system’s chief medical officer. The board threw down the gauntlet: Lead MHHS to a zero HAI rate, and make that change sustainable across all 11 hospitals. For a health care system providing 732,000 days of care to 135,000 patients annually, that was no small task.

Energized by the challenge, Shabot teamed up with Juan Inurria, system executive for quality and patient safety, and together they hatched a plan. They started with a philosophy adopted from the aircraft industry, which boasts safe operations despite the potential for accidents. This approach, known as high reliability, demands that the organizational culture make error prevention fundamental to its business operations.

In MHHS’ case, a dramatic culture shift throughout the entire system was necessary. For patient safety to be a core value of everyone, responsibility had to be taken in the boardroom. In addition, hospital leaders needed a minute understanding of the clinical processes of their facilities.

A Collaborative Analysis
Shabot and Inurria convened a task force comprising 50 multidisciplinary stakeholders from across the organization. Anyone who had a role in reducing CLABSI and VAPs was at the table. They presented evidence-based practices for preventing HAIs and then...
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By June 2008, MHHS could boast a sustained decrease in the rate of CLABSI and VAPs. Some hospitals had gone several months without a medical device–associated infection.

A Cascading Approach
But Shabot and Inurria knew that success wasn’t just about process. It was also about people. Before they implemented the bundles, they shifted responsibility for infection control from infection preventionists to the intensive care unit directors who managed team performance. Having changed the direction of accountability, they now saw ownership start at the top of the organization and cascade downward.

“By doing this, they now hold everyone accountable. Everyone from management to nursing at the patient’s bedside was equally responsible for ensuring patients were safe,” said John Butler, M.D., medical director of epidemiology and infectious disease, who joined MHHS a year into the process. Initially, the infection preventionists worried that their changed roles would cause clinical units to lose traction on their goals. When they saw the early results from bundle implementation, however, they became excited. Overnight, hospital staff sought them for consultation.

“Finally, they were utilized as the experts, not the infection police,” said Inurria.

Collaborate. Benchmark. Review.
To make the changes systemic, MHHS also introduced comprehensive reporting measures for every team involved in infection control. Monthly operational reviews, self-assessment frameworks and strategic action plans became the daily bread of every team across the system.

Transparency was key. Bundle compliance rates were posted in clinical units and public areas, and progress was reviewed in interdisciplinary meetings. Daily and weekly audits became part of the process. Additionally, incremental changes to the clinical process occurred when nurse champions were appointed, when robust bedside routines were implemented, and when the oral care of patients in intensive care units was brought up to national standards.

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Realigning around the Data
“We were well into our high reliability journey, but we needed something to get to the next level,” said Inurria. “Early on, we’d manually collected samples of bundle compliance. We realized that our data had to be more comprehensive.”

In 2009, MHHS upgraded the electronic medical record system to integrate bundle compliance with all clinical documentation. The system triggered daily reviews of patients with invasive medical devices, causing interventions to soar and infections to fall. More rigorous data also offered a less tangible benefit: staff buy-in.

“The hardest part of the project was getting the naysayers on board,” Inurria said, “but when they saw the data, they began to realign around it.”

Butler agreed. “It’s hard to get people to buy in to a process change if they don’t trust the data,” he said.

By integrating bundles into EMRs, the project garnered the high reliability boost it needed. In August 2011, MHHS announced that one of its hospitals was free of HAI.

New Goals
Keen to surge toward systemwide zero-infection rates, MHHS joined a collabora-