



MICHIGAN HEALTH & HOSPITAL ASSOCIATION

Advocating for hospitals and the patients they serve.

Best Practices in Health Care

Statement of Brian Peters

Senior Corporate Vice President, Michigan Health & Hospital Association

United States Senate Finance Committee

June 16, 2008

Thank you, Mr. Chairman and members of the Committee. I am Brian Peters, Senior Corporate Vice President of the Michigan Health & Hospital Association in Lansing, Michigan. The MHA represents all 146 nonprofit community hospitals throughout Michigan, and I am pleased to have the opportunity to share with you our very positive experience with respect to the implementation of evidence-based best practices in the health care setting.

Taking steps to ensure patient safety and improve quality of care is the right thing to do, not only from the perspective of protecting patient lives and well-being (or as we call it in the health care field – “mortality and morbidity”), but also in terms of the bottom line. In short, higher quality health care costs less, and we have demonstrable evidence to support this premise. At the same time, the Michigan experience also demonstrates that provider engagement in quality improvement activities has a very positive impact on the job satisfaction for everyone involved, as nurses and other members of the care team are truly invested in creating and maintaining the “culture of safety” that is the underpinning of successful change.

As you know, the 1999 Institute of Medicine report, “To Err is Human,” estimated that between 44,000 and 98,000 patient lives were lost each year in American hospitals due to preventable medical errors. Rather than debate the merits of these estimates, we began to lay the groundwork to allow our member hospitals to engage this challenge head-on. We ultimately established the MHA Keystone Center for Patient Safety & Quality as a nonprofit entity designed to bring together hospitals, state and national experts and best practice evidence to improve patient safety by addressing the quality of health care delivery at the bedside.

SPENCER JOHNSON, PRESIDENT

CORPORATE HEADQUARTERS ♦ 6215 West St. Joseph Highway ♦ Lansing, Michigan 48917 ♦ (517) 323-3443 ♦ Fax (517) 323-0946
CAPITOL ADVOCACY CENTER ♦ 110 West Michigan Avenue, Suite 1200 ♦ Lansing, Michigan 48933 ♦ (517) 323-3443 ♦ Fax (517) 703-8620

www.mha.org

The MHA Keystone Center for Patient Safety & Quality

The MHA Keystone Center for Patient Safety and Quality was created in March 2003 in response to growing concern about patient safety and health care quality and in recognition of the unique willingness of Michigan hospitals to collaborate to improve care. The overall mission of the MHA Keystone Center is expediting the translation of patient safety and quality improvement **evidence into practice**.

To date, Keystone has been funded by grants, MHA-member hospitals and Blue Cross and Blue Shield of Michigan (BCBSM). The original Agency for Health Care Research and Quality (AHRQ) matching grant was for \$1,000,000. The hospitals contributed a match of in-kind contribution of staff time. Keystone now represents the largest regional partnership of intensive care units assembled in a single initiative. The MHA Keystone Center has partnered with safety experts from Johns Hopkins University, the Centers for Disease Control and Prevention, and others to bring this work to the State of Michigan.

The MHA Keystone Projects allow hospitals to apply local wisdom to implement best-practice interventions to prevent harm to patients. This work requires dedicated participants, leadership support, resources, and physician engagement to achieve measurably improved outcomes and sustained results. Engagement of frontline staff to change behavior is the key to implementing and sustaining any successful change in practice.

Through the Michigan Health and Hospital Association Keystone Center for Patient Safety and Quality, Michigan hospitals have launched groundbreaking programs to reduce errors and improve the quality of patient care in the state of Michigan. While participation in the Keystone projects is voluntary in Michigan, this effort demonstrates the serious commitment of the MHA and its member hospitals to provide the safest, most effective care to all Michigan residents. Michigan hospitals have a proven track record of accountability through voluntary reporting. Voluntary reporting efforts have allowed us to devote our time correcting problems and implementing changes, rather than on laborious data collection. Voluntary non-punitive reporting encourages ownership, transparency and action. The MHA Keystone projects emphasize sharing of information, challenges, and successes among Michigan hospitals in a non-competitive manner through the exchange of ideas among health care systems so that we can assist each other in providing better and safer care.

We believe that an important element of our success is the voluntary nature of the MHA Keystone efforts. It is our experience that voluntary, provider-led process improvements and non-punitive reporting encourages ownership, transparency and action. Our projects emphasize the sharing of information, challenges, and successes among Michigan hospitals in a non-competitive manner through the exchange of ideas among hospitals and health care systems of all sizes and geography so that we can assist each other in providing better and safer care.

MHA Keystone: ICU

Our initial collaborative is *MHA Keystone: ICU*. Since October 2003, 120 Michigan ICUs in 72 Michigan hospitals have used a series of evidenced-based interventions to eliminate central line-associated blood stream infections, ventilator-associated pneumonia and sepsis. The MHA did this in partnership with Dr. Peter Pronovost and his team at Johns Hopkins University and was initiated with a grant from the Agency for Health Care Research and Quality. Between March 2004 and March 2007, *MHA Keystone: ICU* generated significant results estimated at:

- ▶ More than 1,700 patient lives saved
- ▶ More than 127,000 excess hospital days avoided
- ▶ More than \$246 million health care dollars saved

To date more than half the participating ICUs have lasted two years without a bloodstream infection. The incident rate of ventilator-associated pneumonia is nearly half of what it was. Culture change is also evident in the participating teams. We find strong correlations between culture and clinical outcomes. Intensive care units with a strong safety and teamwork culture have half the nurse turn-over rates compared to those whose culture is weak. Specifically the *MHA Keystone: ICU* project did the following:

1. Implemented a Comprehensive Unit-Based Safety Program (CUSP) to educate staff on the science of safety. This is an 8-step safety program that begins and ends with staff assessments of safety in the workplace. CUSP advocates open communication and collaboration between all levels of staff from senior leadership to entry level staff.
2. Improved team communication through the development of a daily goals checklist. Hospital teams implemented daily multi-disciplinary rounding to include all participants in patient care. With the addition of a pharmacist to the daily rounding team, clinicians are able to address medication appropriateness, and compatibility, and discuss evidence-based treatment. Infection Control Practitioners are also able to reinforce proven methods of prevention.
3. Reduced catheter-related blood stream infections which increase morbidity, mortality, and cost of care. Hospital teams implemented the use of a standardized central line checklist that ensures that we are compliant with evidence-based practices and have followed all of the infection control practices accordingly. Each team evaluated the contents of its central line equipment cart and added full-barrier draping to help maintain a sterile field and reduce complexity of the procedure.
4. Improved the care of ventilated patients in the ICUs to ensure that best practices were consistently applied in the care of these patients. These best care process include: Elevating the head of the bed 30 degrees which reduces the frequency of pneumonia; appropriate use of peptic ulcer disease prophylaxis which reduces the risk of upper gastrointestinal bleeding; daily interruption of sedative drug infusions to decrease the

duration of mechanical ventilation; daily screening of respiratory function to determine if the patient could be removed from the ventilator.

5. Improved the identification and implementation of early goal-directed therapy to treat patients with sepsis by reducing complexity and creating independent redundancy. This helps to ensure that patients with severe sepsis and septic shock receive the care they should in the intensive care unit with evidence based clinical guidelines.

MHA Keystone: Hospital-Associated Infection

In 2007 MHA invited all Michigan hospitals to participate in the hospital-associated infection (HAI) collaborative. More than 100 hospitals are now engaged. The project goal of *MHA Keystone: HAI* is elimination of hospital-associated infections in the hospital setting. Hospital associated infections add to patient morbidity, mortality and costs of care. It's estimated that 5 to 10% of inpatients develop an infection, which is roughly 2 million patients a year, at a cost of \$4.5 to \$5.7 billion nationally. As with the ICU collaborative, the participating hospitals implementation team includes a senior executive at the vice president level or higher, a nursing leader, a physician leader and an infection control professional. Each team agrees to implement the evidence-based interventions and to share what they learn with other teams. While still early in the process the results of the *Keystone: HAI* collaborative are demonstrating hand hygiene compliance rates at nearly 80 percent, twice the national average. Specifically the *MHA Keystone: HAI* collaborative measures are:

1. Appropriate hand hygiene. Hand hygiene is the primary measure to reduce infections. MHA Keystone and the hospitals teams developed aggressive hospital-wide awareness and marketing campaign to remind our health care providers of the importance of hand washing, and have installed hand hygiene stations in patient care and public areas throughout the hospital for staff and visitor use. We are beginning to observe remarkable results. Hand hygiene has already improved from 40-50% compliance to rates of almost 80 percent and teams continue to strive for 100% compliance. Hand hygiene is considered the leading measure to reduce the transmission of pathogens in health care settings. The importance of this simple procedure is often times not recognized by health care workers. Though the act of washing your hands is simple, the lack of compliance among health care providers is problematic throughout the world.
2. Reduction of blood stream infections—Hospital staff is encouraged to speak up if they perceive a breakdown in sterile technique during catheter placement. Teams implemented an ICU protocol using a standardized checklist that is completed prior to every catheter insertion to ensure the adherence of proper precautions to prevent infections.
3. Reduction of indwelling bladder catheter use to prevent urinary track infections (UTI)—With this being the most common hospital-associated infection, hospital teams are assigned to do an aggressive hospital-wide effort to minimize bladder

catheter-associated UTIs. Prompt removal can minimize the risk of catheter-associated UTIs that increases every day a catheter remains in place.

MHA Keystone: Surgery

In April, MHA Keystone launched its *Surgery* collaborative. This project is supported in part by a generous fiscal year 2008 appropriation sponsored by Senator Stabenow. Seventy-six Michigan hospitals are participating, equally divided between urban and rural. The hospitals in the collaborative have a median surgical volume of about 6,000 procedures annually. Keystone programming is open to all hospitals willing to participate regardless of size or location in the state. Because of the support of Senator Stabenow and additional funding from Blue Cross Blue Shield of Michigan, and because the cost of implementation of our projects has been relatively low so far, few hospitals are left out because of cost.

The *MHA Keystone: Surgery* collaborative interventions will include a morning briefing among the surgical team, operating room briefings and debriefings, and a process for learning from defects. Other interventions are avoiding razors and hypothermia, appropriate selection, timing and discontinuation of antibiotics, glucose control, steps to prevent blood clots and mislabeled specimens and a comprehensive unit-based safety program designed to change the culture in the surgical setting as has taken place in our ICUs.

As with the *MHA Keystone: ICU* collaborative, Dr. Pronovost's team is our expert partner and the *Surgery* collaborative will use the Johns Hopkins Comprehensive Unit-based Safety Program:

- ▶ Evaluate culture of safety
- ▶ Educate staff on science of safety
- ▶ Identify defects
- ▶ Assign executive to adopt unit
- ▶ Implement teamwork tools
- ▶ Evaluate culture of safety

Beaumont Hospitals served as a test site for the *MHA Keystone: Surgery* collaborative. During the 18-month testing period, Beaumont developed and implemented pre-operative briefings and debriefings. The OR briefing is a one-to-two minute discussion that takes place in the OR among all surgical team members before the case begins. Its purpose is to check critical information and promote open communication by all team members during the operation. Topics that are discussed include the operative plan, patient risks, potential hazards, safety concerns, and operating knowledge of the equipment needed for each case. To date Beaumont has implemented this procedure in all of its operating room suites, and has performed more than 40,000 briefings and debriefings.

Beaumont also succeeded in improving its delivery of perioperative antibiotics to patients and continues to examine risk factors for surgical site infections. By implementing interventions, Beaumont was able to achieve an additional 11% reduction in sternal wound infections in patients undergoing coronary bypass grafting, a patient population at very high risk for infection. It is MHA's intention that all of the hospitals in the *Surgery* collaborative have similar successful results with this new collaborative.

Next Steps

The MHA plans collaboratives on emergency department quality and efficiency improvement and on high-risk obstetrics. The tentative plan for launching these next two initiatives is the fall of 2009.

Building upon the commitment of Michigan hospitals to leadership in patient safety, the MHA has stepped forward to create the first Michigan Patient Safety Organization (PSO) pursuant to the federal Patient Safety and Quality Improvement Act of 2005. This endeavor is the next major step in allowing hospitals to share adverse-event and near-miss information to help identify areas that can be addressed to reduce the likelihood of harm. The MHA PSO is already incorporated. The first activity of the MHA PSO is engaging Michigan hospitals in data collection activities designed to prevent serious adverse events. The MHA PSO will further advance Michigan's results on patient safety improvements.

Conclusion

One of the most important aspects of our collaboratives is improving the culture of safety. How do we do this? We measure safety. We measure the harm by tracking ICU infection rates. We determine how often we should do certain things by applying evidence. We reduce complexity and increase reliability. Our expert partners have identified interventions associated with improved outcomes in specified populations, such as ICU or surgical patients. Our expert partners help us select the strongest interventions and together with our hospital teams and our experts, we convert these interventions to behaviors. And again, we measure both process and outcome. Taken together this creates and sustains a culture where **Harm is Untenable**.

Some things we are not investing in are assigning blame or fault when medical errors are identified. Corrective actions don't focus on the individual. Instead the Keystone collaboratives focus on making system changes that avoid opportunity for human error and a cohesive commitment to top performance. Our goal is for this tide to raise all ships.

In the first effort, the MHA *Keystone ICU* collaborative demonstrated that the right approach yields dramatic results in patient safety and improved quality. In Michigan we give our professionals the tools and support necessary to save the lives of their patients. These efforts also yield impressive savings in the cost of health care and the number of days patients are in the ICU.

This didn't happen because of laws mandating data collection or changes in payment policy from a third-party payer. The culture of safety in Michigan hospitals has become vastly better because we used a change model that moved all participants to better outcomes and safer practices. The MHA works from a model that is inclusive, focuses on systems rather than blame, creates clear goals, encourages questions and concerns and allows for learning from mistakes. Changing behaviors and values are not targeted at a single ICU, a single hospital or a single health care system. Creating and sustaining a culture of safety is viewed as an extensive effort and supported through the entire hospital community. The right investment in the evidence-based practice of medicine, a team approach and the promise and expectation of improvement for all patients in all hospitals means we are creating the change we need in health care.

Attached to this statement are two publications, one from the New England Journal of Medicine and the other from the Journal of Critical Care. Each describes the MHA *Keystone: ICU* collaborative in clinical detail.

For more information about the MHA Keystone Center for Patient Safety & Quality please contact Sam Watson, Executive Director, at 517/886-8362 or swatson@mha.org.