MICHIGAN HEALTH & HOSPITAL ASSOCIATION

Advocating for hospitals and the patients they serve.

May 30, 2008

The Honorable Henry Waxman
US House of Representatives
Washington DC 20515

Dear Chairman Waxman:

The Michigan Health & Hospital Association is pleased to respond to your request for information on our efforts to eliminate health care-associated infections in Michigan hospitals. As our expert partner, Dr. Peter Pronovost, testified to your committee, Michigan is leading the way in using evidenced-based interventions to reduce and eliminated infection in intensive care units (ICUs) and elsewhere in hospitals.

You specifically asked for our median and overall rates of central-line associated blood stream infections in ICUs. As you are aware, since October 2003, 120 Michigan ICUs in 72 Michigan hospitals have used a series of evidenced-based interventions to reduce the incidence of these bloodstream infections. The median rate of central line-associated bloodstream infections per 1,000 catheter-days decreased from 2.7 infections at baseline to 0 at three months. The mean rate per 1,000 catheter-days decreased from 7.7 at baseline to 1.4 at 16 to 18 months of follow-up. These results of eliminating or nearly eliminating central line-associated bloodstream were sustained over 18 months of post-intervention follow-up.

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 — a feat historically deemed impossible. Key clinical interventions to prevent ventilator-associated pneumonia have cut the incidence rate of pneumonia by nearly half. Culture change is also evident in the participating teams, most obvious in the decreased rates of nursing staff turnover. Over the past five years we have measured culture as rigorously as we have measured clinical outcomes. We have found that there

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are 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.

The MHA Keystone Center is proud to be the host of this first broad scale project to improve quality in the ICU. Hospitals in New Jersey and Rhode Island are implementing similar interventions and getting similar results. In the annual progress report of the World Alliance for Patient Safety has selected a "Matching Michigan" program as one area of focus for the 2008-2009 work program. Initial work is already under way with the Ministry of Health of Spain including a country-wide implementation of a strategy based on the Michigan ICU project. A copy of the World Alliance for Patient Safety report is attached to this letter.

Since the launch of the ICU collaborative, the MHA has implemented two more collaboratives related to eliminating infection. In 2007, MHA invited all Michigan hospitals to participate in the hospital-associated infection (HAI) collaborative. More than 100 Michigan hospitals are now engaged. The project goal of MHA *Keystone: HAI* is elimination of hospital-associated infections in the hospital setting, starting with a strategic and manageable list of targeted infections. Only interventions that are consistent with evidence for scientific merit and are feasible at the bedside are used for this initiative.

Guidance for this collaborative comes from an advisory committee that draws upon expertise from the Michigan Society of Infection Control Professionals (MSIC) and the Society of Healthcare Epidemiology of America (SHEA) along with representatives from the Centers for Disease Control and Prevention, Blue Cross Blue Shield of Michigan (BCBSM), from hospitals and others as appropriate, including the Michigan Department of Community Health and Michigan Peer Review Organization (an organization focused on health care quality improvement and patient safety initiatives).

In most participating hospitals the implementation team includes a senior executive (vice president or above), a nursing leader, physician leader and an infection control professional. Each team committed to collecting required data, attending two meetings annually, and participating in conference calls. Each team also agrees to implement the interventions as presented and to share what they learn with other teams. During the first two years of *Keystone: HAI* the interventions include appropriate hand hygiene, reduction of indwelling catheter use to prevent Urinary Tract Infection (one of the eight hospital-acquired conditions in CMS' 2008 Inpatient Prospective Payment System), and the science of safety. While still early in the interventions, the results of the *Keystone: HAI* collaborative are demonstrating hand hygiene compliance rates at nearly 80 percent, twice the national average.

The most recent gathering of the HAI collaboration teams brought over 200 people to Lansing, Michigan to discuss the experiences with the project, the challenges of emerging

types of infection, and the results of the HAI collaborative. One of the important aspects of the MHA Keystone collaboration model is the implicit invitation for each hospital to apply local wisdom to enhance the project. One large, rural hospital in Northern Michigan initiated a requirement that each nurse inserting bladder catheters do hands-on training and demonstrate catheter insertion competency. This training was in addition to the interventions required as part of the HAI collaborative.

In April of this year, MHA Keystone launched its Surgery collaborative. This project is supported in part by a fiscal year 2008 appropriation sponsored by Michigan Senators Debbie Stabenow and Carl Levin. Seventy-six Michigan hospitals are participating, equally divided between urban and rural. The median annual surgical volume in these hospitals is 1514 inpatient procedures and 4129 outpatient procedures. The prescribed interventions include identifying daily goals, a morning briefing, operating room briefings and debriefings, a process for learning from defects and a team check-up tool. As with the *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

The MHA plans collaboratives related to Emergency Department quality and efficiency improvement and Obstetrics. The tentative plan for launching these 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.

The MHA Keystone ICU collaborative demonstrates that the right approach yields dramatic results in patient safety and improved quality. In Michigan we have given our professionals the tools and the 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 did not happen because of mandated data collection or

changes in payment policy from a third-party payer. The culture of safety in Michigan hospitals is 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. Change in behaviors and values were not targeted at a single ICU, or hospital or even a single health care system. We believe cultural change should be extensive and supported throughout the entire hospital community. The ICU collaborative shows us change comes from the right investments, evidenced-based practice of medicine, a team approach, and the promise and expectation of improvement for all patients in all hospitals.

Sincerely,

Sam Watson
Executive Director
MHA Keystone Center for Patient Safety and Quality