

HHS REPORT: Infection Prevention Professionals, Hospital Representatives Recommend Steps to Simplify and Streamline Federal HAI Tracking System

By Don Wright, M.D., Deputy Assistant Secretary for Healthcare Quality, U.S. Department of Health and Human Services

Hospital infection prevention professionals and state hospital association representatives participated in regional meetings sponsored in Denver, Chicago, and Seattle last summer by the U.S. Department of Health and Human Services (HHS) and suggested ways that a leading federal system for tracking health care–associated infections (HAI) could be made easier for hospitals to use.

Participants included hospital quality leaders representing the Colorado, Illinois, Indiana, Minnesota, Tennessee, Washington, and California hospital associations, hospital infection preventionists, information technology specialists, and state and local public health professionals. At the meetings, participants asked about the system—the Centers for Disease Control and Prevention’s (CDC) National Healthcare Safety Network (NHSN)—and recommended steps to reduce data-collection burdens and to increase usefulness for hospital infection prevention and quality improvement programs. NHSN is a secure, Web-based tracking and prevention tool for hospitals and state health departments to submit specific HAI infections and procedural information.

I convened the regional meetings to get stakeholders’ input into the “HHS Action Plan to Prevent Healthcare-Associated Infections,” an initiative my office is leading, as well as to hear about their experiences so far with NHSN. The HHS Action Plan sets specific targets for monitoring and preventing HAIs nationally and is a blueprint for HAI prevention. (You can find it at <http://www.hhs.gov/ophs/initiatives/hai/infection.html>.) Leaders and staff from the Agency for Healthcare Research and Quality (AHRQ), CDC, Centers for Medicare and Medicaid Services (CMS), and the HHS Office of Public Health and Science joined me in presenting the Action Plan and responding to questions and concerns at these regional meetings.

I have seen great progress over the last year within HHS in developing and implementing this strategy and have seen this initiative gain momentum across the country. In late October, AHRQ awarded \$17 million to fund 14 projects to fight HAIs. Of the \$17 million, \$8 million will fund a national expansion

A Partnership in Fighting Infection

Health care–associated infections (HAIs) continue to be a major barrier to patient safety, and the prevention of HAI in accredited organizations is a strategic goal of The Joint Commission. In October 2008, The Joint Commission partnered with the Society for Healthcare Epidemiology of America, Infectious Diseases Society of America, Association for Professionals in Infection Control and Epidemiology, and American Hospital Association to publish the *Compendium of Strategies to Prevent Hospital Acquired Infections*. Additionally, as of January 1, 2010, three HAI-focused National Patient Safety Goals (NPSG) based on the *Compendium* became effective for accredited organizations including:

- NPSG.07.03.01 and the prevention of multi-drug resistant organisms
- NPSG.07.04.01 and the prevention of catheter-associated blood stream infections
- NPSG.07.05.01 and the prevention of surgical site infections

The Joint Commission, however, is one of several national organizations that are addressing HAIs. The U.S. Department of Health and Human Services (HHS) is currently in the process of implementing the “HHS Action Plan to Prevent Healthcare-Associated Infections”. The Joint Commission supports HHS in its efforts to prevent HAIs. The Joint Commission is, therefore, publishing this special article, written by Don Wright MD, HHS Deputy Assistant Secretary for Healthcare Quality, reporting on steps HHS is taking to streamline and simplify the federal system for tracking HAI.

Robert A. Wise, M.D., Vice President, Division of Standards and Survey Methods, The Joint Commission

of the Keystone Project, which within 18 months successfully reduced the rate of central line–associated bloodstream infections in more than 100 Michigan intensive care units and saved 1,500 lives and \$200 million.

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The Keystone Project was originally started by the Johns Hopkins University in Baltimore and the Michigan Health & Hospital Association to implement a comprehensive, unit-based safety program. The program involves

- Using a checklist of evidence-based safety practices
- Staff training and other tools for preventing infections that can be implemented in hospital units
- Standard and consistent measurement of infection rates and
- Tools to improve teamwork among doctors, nurses, and hospital leaders

The new funding will expand the effort to more hospitals, extend it to other settings in addition to ICUs, and broaden the focus to address other types of infections. (A complete list of the institutions funded by the \$17 million in AHRQ resources is available at <http://www.ahrq.gov/qual/haify09.htm>.)

Reporting with NHSN

In an effort to complement the use of these and other HHS funds, the Department intends to use data from NHSN to help monitor progress toward the Action Plan goals. The Action Plan is guided by the information gathered through NHSN.

Many states have passed laws requiring reporting of facility-specific HAI data to state health departments with public disclosure of infection rates. Twenty-seven states require hospitals to report HAI publicly and most use NHSN. Hospital enrollment in NHSN has increased dramatically in the past few years, from 300 to more than 2,400 hospitals at the end of 2009.

Participants at our regional meetings asked technical questions about NHSN and encouraged the CDC to find ways to simplify and streamline the system. Many raised questions about the NHSN enrollment process, specifically the requirement that users obtain and install a digital certificate—an electronic security credential that is a prerequisite for NHSN participation. Among other technical problems, they cited difficulties logging onto the NHSN application during peak use times, such as in the middle of the work day, and slow system response times when entering or analyzing data. Others spoke about the difficulties they experienced in applying NHSN case criteria to pediatric patients for some HAIs; the complexities of how health care-associated pneumonia is defined in the NHSN data collection protocol; and the need to minimize data collection requirements as much as possible for specific types of infections.

Many participants said hospital infection professionals face mounting NHSN data-reporting burdens, as the turnover rate in the field is increasing. This, in turn, limits the hospitals' ability to use NHSN infection data for HAI prevention and quality improvement activities.

Stakeholders also called for NHSN to make greater use of health care data in electronic form and apply information technology that can automate case detection and reporting. Some NHSN users also reported technical difficulties using an NHSN feature that enables electronic imports of surgical procedure data.

Daniel Pollock, MD, the Surveillance Branch Chief for CDC's Division of Healthcare Quality Promotion, and I reported on CDC's efforts to update NHSN and improve its ease of use. We acknowledged that participants had valid concerns about some HAI case criteria and data requirements. We emphasized that simplifying and streamlining the system and assuring sufficient technical capacity and user support are top priorities.

For example, CDC is revising case definitions and data collection protocols for HAI urinary tract infections and pneumonia. Last year it established an NHSN steering work group of subject matter experts, NHSN users and stakeholders, and information technology specialists to help guide simplification of the system and to make other changes that will make it easier to use. More NHSN staff members were recently hired to perform comprehensive assessments and upgrades of the system's technical infrastructure and usability and to provide additional user support for enrollment and training.

Dr. Pollock emphasized that CDC is committed to accelerating the transition from manual to electronic case detection and reporting for NHSN and leveraging advances in health information technology as a primary strategy for enhancing NHSN's functionality and usability. As part of that effort, NHSN now is accepting electronic infection records submitted by hospitals that use commercial infection control surveillance systems. The system will accept bloodstream infection and surgical site infection records generated in a standard file format known as Clinical Document Architecture.

We emphasized that CDC works closely with AHRQ, CMS, and the Office of the National Coordinator for Health Information Technology to coordinate efforts to integrate federal information systems that provide HAI data. That is part of our commitment here in Washington to support hospitals' efforts to reduce and eliminate HAIs and to make health care safer for patients and families. For more information on NHSN, visit <http://www.cdc.gov/nhsn>. 