# Report on the Pilot Year of Healthcare-Associated Infections Surveillance in New Mexico

Prepared by the Healthcare-Associated Infections Advisory Committee

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## Executive Summary

The New Mexico Healthcare-associated Infections (HAI) Advisory Committee (NM HAI AC) was formed at the direction of the New Mexico Department of Health (NMDOH) Secretary Vigil. The NM HAI AC guided the pilot of HAI surveillance in six hospitals that collected information on two important indicators from July 1, 2008 - May 31, 2009. The two HAI indicators were: 1) central line-associated bloodstream infections (CLABSIs) in adult intensive-care units (ICUs); 2) influenza vaccination rates of healthcare workers (HCWs).

The HAI AC recognizes that the public wants to know--and should know--about the quality of care that their hospitals provide. Furthermore, hospitals can use the information gained from monitoring and analyzing patient care indicators to improve patient safety. The pilot indicators were chosen because they can have significant impact on patients' health and also because hospitals can improve on those outcomes. CLABSIs are infections that many states monitor because patients can become very sick, have prolonged hospital stays and even die from their infections. In addition, these infections can lead to expenses for patients and for the healthcare system. Many HCWs do not receive the influenza vaccinations that can protect them and their patients. Approximately 36,000 deaths and over 200,000 hospitalizations occur annually in the United States from influenza and influenza-related causes.[1, 2]

The pilot hospitals used the CDC National Healthcare Safety Network (NHSN) electronic database to report CLABSIs. Statistical analysis of CLABSI rates from nine ICUs in the six pilot hospitals found that New Mexico rates were lower than the national NHSN CLABSI rates. Each of the six individual pilot hospitals exceeded the Joint Commission goal that a minimum of 43% of HCWs be vaccinated against influenza. Pilot hospitals are putting practices into place to eliminate CLABSIs and to increase HCW influenza vaccination rates.

In 2009 the New Mexico Legislature passed Senate Bill 408 entitled "Hospital-Acquired Infection Act" into law. The Act establishes the membership of and actions to be completed by the HAI AC. Public reporting of the HAI indicators is one of the actions specified by the Act. The pilot did not provide hospital-specific data to the public because hospitals needed to learn the new system and the HAI AC needed to learn how to analyze and interpret the data accurately for comparison purposes. In addition, the HAI AC needed to develop reports that would be understandable and useful to the public.

Starting July 2011, data at the hospital level will be available in reports that could help the public to make healthcare decisions. In the interim: a) commitments to do this work will be obtained from as many hospitals as possible; b) training and guidance will be provided for enrollment into NHSN; c) HAI hospital surveillance systems will be reviewed; d) HAI AC will identify the educational needs of participating hospitals and develop curricula to satisfy those training needs; e) monthly calls to support participating hospitals will be ongoing; f) HAI AC will identify potential additional indicators beginning January 1, 2010 and at least annually thereafter; and g) progress reports will be provided to the New Mexico Legislature and other interested parties.

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[1] Thompson WW, Shay DK, Weintraub E, et al. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA 2003;289:179-86.

[2] Thompson WW, Comanor L and Shay DK. Epidemiology of seasonal influenza: use of surveillance data and statistical models to estimate the burden of disease. JID 2006;194:S82-91.

## Overview of Healthcare-Associated Infection Surveillance in the U.S.

This section provides a perspective on the history of healthcare-associated infection (HAI) epidemiology in the U.S. The science surrounding HAIs initially focused on case definitions and surveillance methodologies for inpatient care and has more recently evolved to include interdisciplinary collaboration using evidence-based interventions to eradicate HAIs across a spectrum of healthcare settings. HAI epidemiology is conducted in the larger context of healthcare epidemiology. Practitioners contributing to field of healthcare epidemiology conduct a variety of activities from education about emerging infections to vaccination of healthcare workers and patients to prevention of injuries and preparation for community disasters.

### The framework for surveillance and improvement is developed.

The modern infection control era is generally recognized as beginning in the late 1970s with the creation of the Centers for Disease Control and Prevention (CDC) National Nosocomial Infections Surveillance System (NNIS).[1] The NNIS system consisted of just over 300 hospitals that submitted data on infections in intensive care units (ICUs) and selected surgical procedures. During this era, definitions for HAIs were developed and risk stratification according to type of ICU was introduced. Appropriate denominators using device-days for patients with device-related infections were developed. The NNIS risk system for surgical site infection, a simple three-point score based on the American Society of Anesthesiology score, duration of procedure and wound class, was developed and validated.[2] Other data collected included the prevalence of antibiotic-resistant bacteria and antibiotic usage in ICUs. The identities of the contributing hospitals remained strictly confidential, while the aggregate data were published and updated periodically by the CDC Hospital Infections Program. The NNIS remained functional until 2005, when it was replaced by the National Healthcare Safety Network (NHSN).[3]

Two cornerstone professional societies were formed in this era. The Association for Professionals in Infection Control and Epidemiology (APIC) offers certification for active infection control practitioners and the Society for Healthcare Epidemiology of America (SHEA) was founded in 1980 to advance the science of healthcare epidemiology. The journals of these two organizations offer venues for dissemination of peer-reviewed findings in healthcare epidemiology. Industry and government funding for research in infection control has been limited, and most published work consists of observational or quasi-experimental studies performed with minimal or no funding.[4]

### An Institute of Medicine report begins the process of change.

In the 1990s, the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) focused their infection control surveys largely on the credentials of the infection control staff in hospitals, the extent and type of surveillance being performed, whether the institution compared its rates to published rates such as the NNIS, and aspects of the environment of care relating to general cleanliness. JCAHO is currently known as The Joint Commission.

The 1999 Institute of Medicine (IOM) report “To Err is Human” detailed the toll of an estimated 98,000 deaths and hundreds of thousands of injuries yearly due to medical errors and

nosocomial infections in the U.S.[5] Following this report, Congress established the Agency for Healthcare Research and Quality (AHRQ) in the U.S. Department of Health and Human Services. In the context of the IOM report, and a series of articles in the Chicago Tribune detailing infection control deficiencies in accredited hospitals, The Joint Commission restructured its approach to surveying hospitals for infection control: a) hospitals were required to create infection control plans for improvement in all deficient areas; b) hospital leadership was held directly responsible for infection control support; c) hand hygiene became a principle focus of the core "Patient Safety Goals"; and d) unanticipated deaths from HAIs were to be investigated using "root cause analysis".[6]

**The "patient safety movement" and the Institute for Healthcare Improvement are launched.**

Immediately upon the release of the IOM report "To Err is Human", Congress scheduled hearings and President Bill Clinton instructed the Quality Interagency Coordination Task Force to analyze the report. Sixty days later, on the recommendation of the task force, the President called on all federal health agencies to implement the IOM recommendations. The IOM report made four major points: 1) the problem of accidental injury is serious; 2) the cause is not careless people but faulty systems; 3) we need to redesign our systems; and 4) patient safety must become a national priority. The patient safety movement represents a shift from prior concepts of quality in healthcare which were based on professional competence and individual responsibility. Quality improvement in healthcare began to incorporate ideas from other industries to create a new emphasis on systems, training, communication, surveillance, teamwork, transparency, evidence-based practice, and redundancy.[7]

The Institute for Healthcare Improvement (IHI) was founded in Massachusetts in 1991, predating the IOM "To Err is Human" report. This non-profit organization has a global agenda, and is perhaps best known for developing the 2005 "100,000 lives" campaign which recruited hospitals to save over 125,000 lives through implementation of evidence-based practices to improve patient safety. The current initiative, the "5 Million Lives Campaign", aims to protect patients from five million incidents of medical harm in U.S. hospitals between December 2006 and December 2008. Four of the twelve types of adverse events targeted by this campaign involve HAIs.[8]

**Scientific evidence contributes to improved HAI rates.**

By the early 2000s, more evidence-based tools became available to those working in HAI surveillance and infection control. For example, endorsement of alcohol hand gel by the CDC Guideline on Hand Hygiene in Healthcare Settings (2002) made compliance with hand hygiene in healthcare feasible.[9] CDC also used scientific evidence to develop several key guidelines on prevention of surgical site infection (1999), central venous catheter-related bloodstream infection (2002), healthcare-associated pneumonia (2004), management of multidrug-resistant organisms (2006), isolation precautions (2008), and sterilization and disinfection (2008).[10-15]

Widespread implementation of guidelines began through regional and national collaborative partnerships in the early 2000s. Most of these followed models for knowledge dissemination, rapid cycle process change and outcome measurements promoted by the IHI. An example that involves many New Mexico hospitals is the Surgical Care Improvement Project of

the Centers for Medicare and Medicaid Services (CMS). This project is administered through New Mexico's health quality improvement organization, the New Mexico Medical Review Association (NMMRA). A national pilot project, known as Surgical Infection Prevention, demonstrated a 27% drop in surgical site infections among 44 participating hospitals (including University of New Mexico Hospital) over one year.[16] Other initiatives report on a 66% decrease in catheter-related bloodstream infections and control of vancomycin-resistant enterococci by collaborative efforts in the upper Midwest.[17,18] Collaborative work began to focus on inter-institutional communication about infection rates, processes and barriers to success. Among CMS-required quality indicators relevant to infection, compliance with best practices to prevent surgical site infection in hospitals was made available to the consumer through CMS at www.hospitalcompare.hhs.gov. Outcomes with infection rates by major procedure have recently been added to this website.

**The first state with mandated reporting for healthcare-associated infections publishes data in 2005.**

Consumer and payor concern over the high human and financial cost of HAIs has led to legislative proposals in most states for public reporting of HAIs. Pennsylvania has funded the Pennsylvania Health Care Cost Containment Council (PHC4) since 1986: beginning in January 2004, hospitals were required to submit four categories of HAI data to PHC4 on a quarterly basis using definitions established by CDC. In 2005, PHC4 reported a total of 19,154 HAIs in Pennsylvania's 168 acute care hospitals.[19]

Controversies and lessons learned from the Pennsylvania experience included: a) problems with risk adjustment between facilities using administrative data; b) problematic definitions for certain types of infections; c) questions about the accuracy of costs of HAIs obtained through administrative data; and d) questions about the utility of the present system for consumers, payors and hospitals. News releases from the Hospitals and Healthcare Association of Pennsylvania from 2006 to 2007 demonstrate the evolution and resolution of some of these issues.[20] As Pennsylvania continues to refine its reporting legislation, requirements for larger hospitals to purchase software to obtain data and legal protections for participating hospitals have been added.[21]

Professional societies (including CDC and the National Quality Forum, a clearing house for national guidelines) have recommended limiting public reporting to HAIs with the least subjective definitions and including process measures such as optimal timing of preoperative antibiotics and influenza vaccination of healthcare workers.[22-24]

Experience from a number of states with public HAI reporting legislation has demonstrated a number of challenges. For example, independent analysis of data from PHC4 shows that risk adjustment based on patient severity of illness does not affect subsequent rates of HAI.[25] Some experts in infection control now believe that certain kinds of HAIs are eradicable and that the concept of "benchmarking" rates is obsolete.[26] Rapid response to and analysis of individual episodes of HAI may become the new means of prevention within institutions.[27]

**Consumer awareness pushes legislative action for methicillin-resistant *Staphylococcus aureus* (MRSA) and the Veterans Health Administration leads the way.**

Consumers have become aware of the significant threat to patient safety from multidrug-resistant organisms, particularly methicillin-resistant *Staphylococcus aureus* (MRSA). While some members of the infection control community have long advocated for more aggressive control of MRSA using active surveillance techniques for carriers of this organism, active surveillance has not been promoted as a first-line measure by CDC. Nonetheless, IHI and APIC have created initiatives to reduce MRSA, and the Veterans Health Administration (VHA) has funded most of its larger hospitals to purchase laboratory equipment for rapid detection of MRSA and have also hired additional staff to implement MRSA reduction programs.[28] Early results from hospitals with active surveillance programs in place show 50-85% reductions in invasive MRSA infections.[29]

Legislative initiatives to mandate control of MRSA have spread rapidly; as of May 2009, 11 states have passed legislation addressing MRSA, and four states have legislation pending.[30] State laws usually require hospitals to perform an internal risk assessment and then implement targeted active surveillance. The VHA, with less than two years of implementation of their 'MRSA initiative', reported 50% reduction in HAIs in ICUs and 29% reduction outside ICUs (internal VHA data reported at National VHA MRSA initiative update, San Jose, February 2009). The VHA funded state-of-the-art equipment for detecting MRSA in colonized patients as well as full-time MRSA coordinator positions in all major VHA hospitals to accomplish this result.

**CMS steps in with incentives.**

Following an independent assessment that concluded that some forms of HAIs are preventable, CMS developed a new Diagnosis-Related Group Prospective Payment Plan that will prevent any form of extra payment to hospitals for: catheter-associated urinary tract infections; catheter-associated bloodstream infections; or deep chest wound infections following bypass surgery. These changes took effect as of October 2008 and are anticipated to be unchanged through 2010.[31] Updated guidance indicates that MRSA and *Clostridium difficile*-related infections will be considered for future prospective payment exclusions by 2012.[32]

**Many states adopt public reporting of HAIs and CDC provides the electronic reporting framework.**

By May 2009, 31 states enacted laws requiring public reporting of HAIs and five more states, including New Mexico, passed legislation for study of public reporting.[33] In June 2007, CDC made the National Healthcare Safety Network (NHSN) surveillance system available to support individual hospitals and states in HAI public reporting. This web-enabled system allows uploads of individual facility infection control data directly to CDC or through a state-based administrator. NHSN currently collects data from over 2200 hospitals. Device-associated infections rates reported to NHSN are lower than earlier data published from the NNIS system, which only covered 314 hospitals.[34] Most states use NHSN for mandatory reporting requirements.

Data entry in NHSN requires training in use of the system, including appropriate application of CDC definitions. Definitions of HAIs in NHSN involve specific criteria: the information is perhaps best obtained by an experienced infection control professional through review of medical records. Hospitals need enter only a sampling of their HAI data to be participants in NHSN. Data-gathering can be enhanced by the availability of electronic health records. CDC is working with a number of manufacturers of software designed to obtain data that can be used for NHSN purposes, to ensure that their products are NHSN-compatible. Such products do not automate data entry; data must still be reviewed to assure that they meet criteria after which the data elements can be transferred to the NHSN system. Once data are entered in NHSN, hospitals have ready access to their infection rates, which can be compared to national rates, depicted in various graphic formats, and used to follow trends over time.

**Congress calls for a reduction of HAIs.**

In 2008 several congressional hearings took the member agencies of the Department of Health and Human Services (HHS) to task for not creating a coordinated approach to HAIs through shared data bases and interagency cooperation. In late 2008, HHS responded with the publication of the "HHS Action Plan to Prevent Healthcare-Associated Infections."[35] The action plan targets six major conditions: 1) surgical site infections (SSI); 2) central line-associated bloodstream infections (CLABSIs); 3) ventilator-associated pneumonias (VAPs); 4) catheter-associated urinary tract infections (CAUTI); 5) *Clostridium difficile* infection (CDI); and 6) MRSA. Five-year targets for reduction are established for each condition, with specification of the metrics and reporting system to be used. A task force of the Society for Healthcare Epidemiology of America (SHEA) and the CDC Healthcare Infection Control Practices Advisory Committee (HICPAC) released the "Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals".[36] This document conveys the core elements of all existing CDC recommendations in a brief and accessible format and the electronic site includes information sheets for patients on specific HAIs.

**The Joint Commission and World Health Organization remind us of the basics and issue detailed guidance on assuring safer health care through hand hygiene adherence.**

As the world responds to the 2009 influenza pandemic, public health officials are stressing the importance of basic hygiene measures in healthcare, public and home settings. The Joint Commission and World Health Organization both released documents in spring 2009 examining adherence to hand hygiene in healthcare and reaffirming the centrality of hand hygiene to all infection prevention in healthcare settings.[37,38] These guidelines differ from previous hand hygiene publications in that they emphasize effective strategies to increase adherence with the use of alcohol-based hand rubs.[39]

**The American Reinvestment and Recovery Act (ARRA) responds to the economic crisis and provides funding for HAI surveillance and monitoring through state departments of health.**

The U.S. Department of Health and Human Services recently announced funding opportunities to state health departments to support HAI surveillance and prevention.[40] The

funding is intended as a bridge to the creation of sustainable programs at the state level. Guidance for states included addressing any or all of following elements: a) coordination and reporting of state HAI prevention efforts; b) detection and reporting of healthcare-associated infection data; c) establishing a prevention collaborative. Additional funding is available to ten states in the CDC Emerging Infections Program (EIP) network—of which New Mexico is one—to monitor and investigate the changing epidemiology of HAIs in populations as a result of prevention collaboratives.

**Expanded national patient safety goals and a pledge to reduce healthcare costs contribute to reduction of HAIs.**

The HHS Final Rule regarding the creation of patient safety organizations was posted in January 2009 and **"**establishes a framework by which hospitals, doctors, and other health care providers may voluntarily report information to Patient Safety Organizations (PSOs), on a privileged and confidential basis, for the aggregation and analysis of patient safety events".[41] Patient Safety Organizations, usually funded as non-profits from several sources including local hospital associations, now exist in many states and serve as centers for review of adverse events and improvement efforts. The Joint Commission created detailed requirements for education of all hospital staff and patients in the areas of multidrug-resistant organisms and *Clostridium difficile*, SSIs and CLABSIs. The revised National Patient Safety Goals require that comprehensive evidence-based practices be in place and measured by hospitals as of 2010.[42]

Hospitals and healthcare systems have pledged to hold down healthcare costs in the face of an economic crisis that has contributed to reduced healthcare benefits and financial difficulties for many healthcare systems.[43] The large direct costs of HAIs have been summarized in a recent report from CDC.[44]

**Infection preventionists need support to contribute to improved patient safety.**

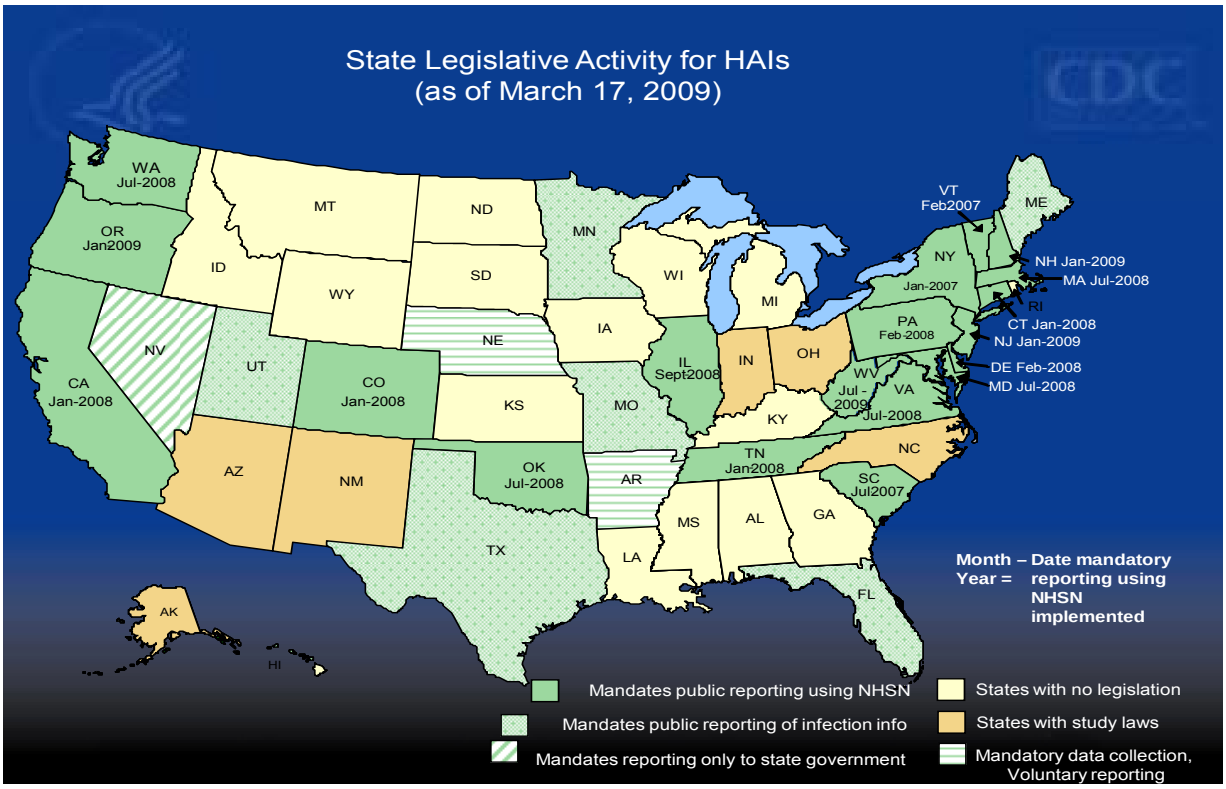
The ten years since the publication of the IOM "To Err is Human" report have seen significant changes in infection control in the United States. Infection control data have moved to center stage in measurements of hospital quality. A paradigm shift has occurred where infections long-tolerated, such as MRSA, have been targeted for reduction in many healthcare systems, and payors have signaled the elimination of some device-associated infections. A national surveillance reporting system has been developed, and many states have some form of public reporting of HAIs. National agencies, such as the National Quality Forum, in conjunction with professional societies, have made recommendations regarding the challenges of public reporting of HAIs. Infection preventionists (IPs) are key to the prevention of HAIs: in addition, efforts to reduce or eliminate HAIs require adequate support staff, appropriate training, and the application of technology.

## State Specific Efforts of HAI Surveillance Public Reporting

Per CDC (see map below) as of March, 2009:

- 26 state laws require public reporting of hospital-acquired infection rates
- 2 state laws require confidential reporting of infection rates to state agencies (NE, NV)
- 1 state law permits voluntary public reporting of infection information (AR)

New Mexico is listed as a state with a study law; however, since this listing, the state has instituted legislation for voluntary public reporting of HAIs.




Other states' experiences have provided valuable information for development of HAI surveillance systems in New Mexico. According to the Association for Professionals in Infection Control and Epidemiology, Inc. (APIC), as of May 19, 2009, 37 states have HAI reporting laws and regulations: a national map depiction can be found at: http://www.apic.org/am/images/maps/mandrpt_map.gif. In January of 2005, NHSN had fewer than 300 hospitals and outpatient dialysis centers participating in surveillance of nosocomial infections. As of April 2009, there were more than 2200 facilities reporting in NHSN, much of the increase attributable to mandatory public reporting of HAI in various states. Lessons learned from three of the states with mandated public reporting are highlighted below.

*Colorado*

In Colorado, legislation (HB 06-1045) was signed into law on June 2, 2006. This bill requires hospitals, hospital units, ambulatory surgery centers and dialysis treatment centers to report health facility-acquired infections data as a condition of their state licensure. The Colorado Department of Public Health and Environment (CODPHE) is the lead state agency administering the initiative. The department is responsible for program implementation, oversight and reporting. The legislation requires the CODPHE executive director to appoint an 11 member volunteer health facility-acquired infections advisory committee to assist with these responsibilities.

The bill requires health care facilities to collect data on infection rates for: cardiac surgical site infections; orthopedic surgical site infections; and central line related bloodstream infections (CLABSIs). It also requires individuals collecting HAI data to be certified in infection control if they are reporting from a facility with 51 or more beds; CDC recommends one certified IP per 100 hospital beds. Facilities report the infection data to NHSN. Data was legislated to be collected annually beginning July 31, 2007.

The bill also requires that the department produce an annual report disclosing the results of the data submitted. The second annual report was submitted to the Health and Human Services Committees of the House of Representatives and the Senate of the Colorado General Assembly on January 15, 2009 (http://www.cdphe.state.co.us/hf/PatientSafety/HFAI/index.html). This report states that many of the difficulties the Colorado health facilities experienced with the NHSN reporting system were "due to limited time and resources." It also states the department is concerned "that there are no resources designated to develop a state system that would ensure the accuracy and completeness of the data going into and being extracted from the reporting database" and that "the issue of data validation is a concern for the department and many stakeholder groups throughout Colorado." The report goes on to state "the department depends on accurate information from reporting facilities and NHSN to produce these reports. The department does not perform data validation or audit facilities to ensure the data are complete."

CODPHE collaborated with a number of professional organizations to help implement the disclosure initiative. The Colorado Hospital Association, the Colorado Mile High Chapter of the Association for Professionals in Infection Control and Epidemiology and the Colorado Ambulatory Surgery Center Association helped the department recruit committee members, train health facilities and disseminate important information to their membership base. DOCPHE also developed a patient safety initiatives section on their Web site: this site is used to disseminate information to health facilities and the public regarding the overall initiative, and it also provides information about the advisory committee and general health facility-acquired infections educational resources.

*New York*

Chapter 284 of the Public Health Law was signed into law on July 19, 2005. This law requires hospitals to report to the department of health information on HAIs. A report about the pilot was published on June 30, 2008: none of the information was released by hospital name. Plans are for annual reports issued after that time to provide data by hospital name. Reports will include information on: a) CLABSIs; and b) select surgical site wound infections associated with critical care units. Reporting will not be required more than every six months.

The New York State Department of Health (NYSDOH) oversees the program. The program is supported by a program director, program manager, data manager, data analyst, program operations director, an administrative assistant and five regionally based IPs. New York HAI program staff conducts on-site audits to evaluate surveillance methods, interpretation of surveillance definitions and completeness of reporting. The program provides ongoing education through: a) telephone consultation; b) regional training sessions to discuss modifications to the reporting system and selection of new indicators; c) on-site hospital visits; d) HAI Web site postings; and e) their electronic newsletter.

NYSDOH also established a goal to prevent the HAIs they selected for reporting purposes and have charged their hospitals to use the HAI reporting system to evaluate risk

factors and potential interventions, and to use the data to evaluate the impact of initiatives to improve quality of care. In June 2009, NYSDOH released a report of 2008 data that includes specific infection rates by individual named hospitals. Both the pilot year 2007 report and the Hospital-acquired Infections – New York 2008 report are available at: http://www.health.state.ny.us/statistics/facilities/hospital/hospital_acquired_infections/.

*Tennessee*

Public Chapter 904, formerly SB 278, was signed into law on June 20, 2006. This law requires facilities with an average daily census of at least 25 inpatients, or outpatient facilities that perform an annual average of 25 procedures per day, to join NHSN within 120 days of when it becomes available to the facility's type of license. With the exception of burn units and level 1 trauma units, facilities must grant the Tennessee Department of Health (TDOH) access to the NHSN database for CLABSIs, and surgical site infections (SSIs) for coronary artery bypass grafts (CABGs).

The department will disseminate public reports, with facility-specific rates for those with more than 30 central line insertions per year; however, only aggregate statewide performance on CABG surgical infection rates will be circulated. Tennessee plans for its first comprehensive report on CLABSIs to be released in 2009. At this time, no formal plan exists for data validation. However, Tennessee is considering utilizing a system that may compare CLABSIs reported via NHSN to blood stream infections (BSIs) generated via hospital laboratories to identify possible discrepancies.

In an April 2009 report to State Epidemiologists, Dr. Marion Kainer of TDOH listed items she felt were crucial to the success of HAI reporting in her state. She noted that education and training through partnerships between CDC, APIC chapters, the State hospital association as well as multiple departments within each hospital was important during NHSN enrollment and for the HAI reporting process.

Lessons learned, in the context of Tennessee's limited resources, include the value of educational sessions during monthly teleconferences (e.g., case studies, NHSN definitions and updates, common problems). Dr. Kainer also suggested that in order to reduce the burden on IPs, hospitals should ensure that sufficient resources are allocated to infection control and that utilization of electronic systems to provide data to NHSN should occur wherever possible.

## New Mexico HAI Pilot Year

### Overview

The NM HAI AC formed at the direction of the New Mexico Department of Health (NMDOH) Secretary Vigil (See Appendix C**:** Letter from the Secretary of Health: Appointment of HAI Advisory Committee and Appendix D: Members of the New Mexico HAI Advisory Committee). The pilot year included surveillance conducted by six hospitals for two HAI indicators from July 1, 2008 through May 31, 2009: the two indicators were CLABSIs in adult intensive-care units (ICUs) and influenza vaccination rates of healthcare workers (HCWs).

The HAI AC recognizes that the public wants to know--and should know--about the quality of care that their hospitals provide. Furthermore, hospitals can use the information gained

from monitoring and analyzing patient care indicators to improve patient safety. The pilot indicators were chosen because they can have significant impact on patients' health and also because hospitals can improve on those outcomes.

The HAI AC first focused on establishing a uniform reporting system and choosing measures to monitor and analyze that could lead to improved patient outcomes. The two indicators that six hospitals reported on during the one-year pilot were influenza vaccination rates of HCWs and CLABSIs because both of these indicators can have significant impact on individuals' health and both can be improved upon by hospitals. CLABSIs are infections that many states monitor because patients can become very sick, have prolonged hospital stays and even die from their infections. In addition, these infections can lead to expenses for patients and for the healthcare system. Influenza vaccination of HCWs is crucial because it protects them and, therefore, their vulnerable patients from influenza which can also cause severe illness and even death. Unfortunately, many healthcare workers do not protect themselves through influenza vaccination.

Pilot hospitals have worked to collect the information for the two indicators, input the data into NHSN and analyze the data. They are also putting practices into place to eliminate CLABSIs and increase HCW influenza vaccination rates. Practices aimed at eliminating CLABSIs and increasing influenza HCW vaccination rates can also help to improve other aspects of patient safety.

More hospitals will be recruited to join the initiative. As HAI surveillance and reporting continues in New Mexico, more indicators will be considered that can also help improve patient safety. Expansion of numbers of participating hospitals and patient safety measures will be done carefully so that accurate information is obtained that hospitals can use to deliver better care.

Starting July 2011, the New Mexico HAI initiative we will begin to publicly report hospital data in a way that is understandable and useful for the public. Since New Mexico hospitals vary in size and services, it is important that data is analyzed accurately for comparison purposes. The pilot did not provide hospital-specific data to the public so that hospitals could volunteer to learn the new system while determining the best way to understand the data and present it to the public in a useful fashion. This is an important endeavor, and the HAI AC is looking forward to working with as many hospitals as possible as it moves from the pilot phase into expansion of the initiative so that the information is used to provide the kind of excellent care that all patients deserve.

## HAI Advisory Committee's Scope of Work

The HAI Advisory Committee created a scope of work statement to define the group's objectives and goals:

- Provide guidance/recommendations for the pilot year. The pilot's success will be measured by the participation of a minimum of three hospitals which will utilize both a surveillance system, such as the National Healthcare Safety Network (NHSN), and Advisory Committee-defined methodology to report on:
    - Central-line-associated bloodstream infections in adult intensive care units
    - Influenza vaccination rates of healthcare workers
- Evaluation of the feasibility of conducting HAI surveillance, process, and quality of data collected

- End-of-pilot recommendations (in the form of a written report) to include reporter liability; patient confidentiality; public reporting methods, formats, and venues for consumers; potential legislation; required resources; and suggestions for how to proceed with expansion of indicators to all acute care hospitals, not including federal or IHS facilities, as directed by the Secretary of Health.

The HAI AC is facilitated by NMDOH Epidemiology and Response Division (ERD) representatives and has been meeting monthly since February 2008. The HAI AC includes representatives from:

a) Consumer groups
b) New Mexico APIC
c) NM Hospital Association (NMHA)
d) NM hospitals (including large and smaller rural settings)
e) Health Policy Commission (HPC)
f) New Mexico Medical Review Association (NMMRA)
g) Local representatives of SHEA
h) NMDOH.

(See Appendix D: Members of the New Mexico HAI Advisory Committee.)

Rationale for Selection of the NHSN as the HAI Surveillance System

The HAI AC recommended the use of NHSN, a CDC-developed and supported electronic system. Utilization of NHSN presents several significant benefits. The system is already being used by many states, thus making possible the collection of both standardized data for New Mexico hospitals and benchmark New Mexico data to compare with other states participating in NHSN. Availability of this electronic system eliminates the need for New Mexico to design and support its own system. CDC hosts the NHSN system, providing technical assistance and upgrades over time: in addition, confidentiality protections are provided through the Public Health Service Act

The NHSN reporting tool is a secure, web-enabled system that requires digital certificates of users. Participating facilities use NHSN to enter, analyze and share data. In order to participate in NHSN, facilities must submit data for at least one module for at least six months of a calendar year, use CDC definitions and codes for data collection, report events within 30 days of the end of the month, and pass quality control checks for completeness and accuracy. CDC also recommends that a trained IP or hospital epidemiologist administer the HAI surveillance program in each healthcare setting. The recommendations do allow for other personnel to be trained to screen for events and collect, enter and analyze data. A facility may share all or some of its data by conferring rights to access. This feature permits data sharing with NMDOH, thereby supplying a mechanism to provide for public reporting.

As of April 2009, CDC has enrolled 2266 facilities in the NHSN reporting system and that number continues to rise. The most recent data disseminated includes 621 hospitals reporting data from 2006 through 2007.[45] The infection rates reported highlight improvement over the last publication of rates from the CDC National Nosocomial Infections Surveillance (NNIS) system which covered the period up to 2005.[46]

Selection of CLABSIs for the Pilot Year

The House Joint Memorial (HJM) 67 Task Force studied the feasibility of conducting surveillance for HAIs in New Mexico and submitted a final report in November 2007. The Task Force recommended CLABSI surveillance because it is has objective, accurate and consistent definitions that allow for standardized reporting and analysis. There is scientific evidence that many of these infections can be prevented with the implementation and consistent use of evidence-based processes of care.[47] Participating hospitals started collecting data for CLABSIs on July 1, 2008. The mechanism for reporting CLABSIs is a module within the NHSN system.

Assurances were given to pilot hospitals that, during the pilot year, data submitted to NHSN to which NMDOH has been granted viewing privileges would be treated confidentially with respect to hospital and patient identifiers (See Appendix C: Letter from the Secretary of Health: Appointment of HAI Advisory Committee). However, the HAI AC worked with the pilot hospitals in order to present preliminary data to the Legislature during the 2009 Legislative Session without identifying patients or hospitals, following the NMDOH small numbers guidelines (See Appendix E: New Mexico Rule for Small Numbers and Public Data Release and Appendix F: New Mexico Healthcare-Associated Infections Pilot Status Report and Preliminary Data: January 15, 2009).

Selection of HCW Influenza Immunization Rates for the Pilot Year

Influenza vaccination coverage of HCWs was selected as an indicator because HCW vaccination for influenza is a critical patient safety measure endorsed by CDC, the Joint Commission, and many professional organizations. Studies have shown that increasing vaccination rates of HCWs who provide care to elderly patients can lead to marked decreases in mortality (e.g., in patients in long-term care settings). Despite this knowledge, even best performing organizations rarely exceed 70% immunization rates (data from the University Health Consortium). According to CDC, in the 2005-2006 influenza season, only 42% of surveyed HCWs received influenza vaccination. In past years, nosocomial influenza infections have been documented in healthcare settings and HCWs have been implicated as the potential source of these infections.

The NHSN module to report HCW influenza vaccinations was not available for the 2008-2009 influenza season; therefore, the pilot developed its own methodology for hospitals to collect and submit data related to this indicator during the New Mexico HAI pilot. Written instructions were provided that included data requirements and definitions (See Appendix G: Healthcare Worker Influenza Immunization Guidelines for the New Mexico Pilot Year). Measuring HCW influenza vaccination rates is a requirement of the Joint Commission, which also requires year-to-year improvements and expansion of facility programs. All facilities accredited by the Joint Commission were encouraged to participate in the Joint Commission influenza vaccination challenge for the 2008-2009 influenza season. The Joint Commission plans to recognize all facilities achieving vaccination rates of HCWs higher than the historical norm of 43%.

Pilot Participants

The request for hospitals to volunteer for the pilot year was facilitated by the NMHA. While the Secretary of Health requested the participation of a minimum of three hospitals, six agreed to join the pilot year:

- Gerald Champion Regional Medical Center, Alamogordo, NM
- Heart Hospital of New Mexico, Albuquerque, NM
- Memorial Medical Center, Las Cruces, NM
- Presbyterian Hospital, Albuquerque, NM
- San Juan Regional Medical Center, Farmington, NM
- University of New Mexico Hospital, Albuquerque, NM

These six healthcare facilities represent both large and smaller hospitals, as well as urban and more rural facilities, thereby offering diversity among facilities participating in the pilot year. IPs at the facilities were the primary persons responsible for maintaining accurate reporting of data during this HAI pilot year.

HAI Advisory Committee Work Groups

In order to fully utilize HAI AC members' time and expertise, work groups were formed to address specific issues surrounding HAI surveillance and public reporting in New Mexico. Work group membership also included individuals who did not serve on the HAI AC but who brought additional skills and knowledge to the work group. Work groups reported to the HAI AC to inform its recommendations.

*Technical Issues Work Group*

Group leaders were from UNM and NMMRA. The group's activities included:

- Ensure that the data collection requirements of the public reporting system (with regard to measures selected, definitions, populations surveyed and surveillance criteria) are standardized and consistent with the recommendations and requirements of national organizations and agencies.
- Use established risk adjustment methodologies for reporting HAI measures.
- Consider electronic health records and information technology systems that may be utilized to replace manual data collection methods.

Most of the group's work centered on how to define and collect HCW influenza vaccination data: the group established the definitions and guidelines to collect these data.

*Public Reporting/Risk Communication Work Group*

Group members included representatives from NMHA, a consumer, APIC, Public Information Officers from hospitals, and other NMDOH members, including its Communications Director. Overall, the role of the group was to make recommendations about how to most effectively communicate HAI data from the initiative to the public. In order to achieve this goal, the group identified its responsibilities:

- Make recommendations regarding the format and venue(s) for public reporting.

- Assess the effects of public reporting of HAIs.
- Work with Public Information Officers within participating agencies and facilities to generate press releases about the pilot project.
- Develop messages regarding risk adjustment.

NMDOH issued three news releases about the HAI pilot year: the first one announced the Secretary's directive for the pilot year; second release contained updates about participants and the two HAI indicators chosen for the pilot year; the third highlighted legislation that made the HAI group permanent.

*NHSN Users' Work Group*

New Mexico Department of Health conducted monthly conference calls with the IPs from the six participating hospitals. The focus activities included:

- Provide advice to the HAI AC in relation to surveillance activities and NHSN methodology and applications.
- Provide advice and support to infection control staff from participating facilities to apply NHSN methodology to report cases of HAIs identified during the project.
- Facilitate training of infection control staff from participating facilities and support staff in epidemiology, facility-specific surveillance programs, NHSN surveillance software and other applications.
- Assist hospitals to use the reporting data in order to: a) provide feedback to their healthcare providers about the facility's performance; b) provide additional information to guide the hospital's ongoing efforts to prevent HAI; c) compare the facility's data with others in the health care system.
- Develop a system for recruiting new hospitals to participate in the program.

Initially efforts of this group centered on NHSN enrollment and education regarding NHSN protocols and methodology for CLABSIs. Monthly timelines were created and discussed during teleconferences so that the pilot hospitals understood and followed the expected goals of the pilot.

*Quality Assurance Work Group*

Participants were from NMDOH, NMHA and hospital IPs. The goals included:

- Assessment of the quality and completeness of training of pilot hospitals.
- Assessment of the quality/standardization of implementation of NHSN by pilot hospitals.
- Development of tools for monitoring quality of data (including surveillance systems to obtain the data and data submitted through NHSN).
- Development of validation methods and tools to evaluate quality, including accuracy and completeness, of HAIs being reported by pilot hospitals.

The work group efforts were directed at creating tools and processes to assure that quality data was being submitted by the hospitals. The following tools/processes were developed:

1. Worksheet for hospitals to determine whether a positive blood culture meets CLABSI definitions (See Appendix J: NMDOH NHSN Users' Guide).

2. Review of all entered CLABSI events by an experienced IP to assure that they met definitions.
3. Review of entered denominator data to check for gross errors, including:
    a) Check that the number of line days does not exceed the number of patient days (not possible)
    b) Check for excessively large increases or declines in line or patient days month to month (these tend to be somewhat stable)
    c) Check that the line days and patient days are not exactly the same in a given month (unlikely event)
    d) Check that the line days and/or patient days are not exactly the same month to month (unlikely event)
4. Monthly phone calls by an experienced IP with pilot hospitals to provide support, review positive blood cultures, and answer questions about NHSN.
5. Recommendation for each facility to develop an 'internal review' checklist so that a single IP is not solely responsible for making decision about HAIs.
6. Case studies of positive blood cultures to assure that IPs understand NHSN definitions and their applications (See Appendix J: NMDOH NHSN Users' Guide).

Questionnaires were administered to each of the pilot hospitals to assess how they conduct their CLABSI and HCW vaccination rate surveillance. The results of this survey were compiled and reviewed to assess weaknesses in the surveillance being performed at the pilot hospitals. Areas of concern were discussed with individual hospital IPs. One result of the survey was to develop "Essential Components of CLABSI Surveillance" that was used during the pilot by IPs with plans to use it during upcoming HAI education and training sessions as new hospitals enroll (See Appendix J: NMDOH NHSN Users' Guide).

## Lessons Learned During the Pilot

1) Enrolling in NHSN typically takes approximately two months and involves multiple steps that must be performed in a specific sequence. Provision of specific timelines, education, training and consultative resources to the pilot hospitals all helped in the NHSN enrollment and implementation phases.

2) Ongoing education and evaluation of the hospitals' understanding of, and strict adherence to, NHSN definitions is critical in order to have consistent and comparable data across hospitals. For example, providing examples of positive blood culture results that the IPs used as case studies helped to assess the pilot hospitals' understanding of NHSN surveillance definitions for CLABSIs.

3) Different types and sizes of facilities have different means of gathering data. Collecting data for HCW influenza vaccination rates proved difficult for many of the pilot hospitals due to: 1) large numbers of staff to track; 2) staff other than the IP having primary responsibility for data collection; 3) relevant staff and physician data frequently not being available or compiled in an accessible way; 4) physician staff with privileges at multiple hospitals who may receive vaccination elsewhere; 5) much data being collected manually.

4) Timely and complete data submission was often influenced by other urgent issues at participating hospitals (e.g., individual infectious disease exposures, emerging novel H1N1 influenza) and occasionally by staff turnover and absences. In many smaller facilities the IP has multiple responsibilities (e.g., occupational health, quality, safety) and therefore hospitals need to provide an adequate number of trained infection control personnel along with appropriate back-up personnel to ensure compliance with HAI reporting requirements and patient safety.

5) No facilities made use of electronic data transfer but rather relied on manual data collection and entry. Hospitals could benefit from integration of information systems to support infection prevention and reporting efforts.

6) If resources allowed, a useful activity would be to conduct onsite audits in order to evaluate: a) surveillance methods; b) interpretation of surveillance definitions; c) completeness of reporting. This would help ensure that participating facilities have similar and, therefore, comparable quality of HAI surveillance in general and understanding of NHSN definitions in particular.

7) Collaborative effort among pilot hospitals allowed for sharing of knowledge about HAI surveillance as well as for HAI prevention efforts and strategies by individual facilities.

## Pilot Results

### Enrollment

Prior to the New Mexico HAI pilot, no New Mexico hospital had enrolled in NHSN. The six participating pilot hospitals are listed below:

- Gerald Champion Regional Medical Center, Alamogordo
- Heart Hospital of New Mexico, Albuquerque
- Memorial Medical Center, Las Cruces
- Presbyterian Hospital, Albuquerque
- San Juan Regional Medical Center, Farmington
- University of New Mexico Hospital, Albuquerque

The NHSN enrollment process typically takes two to three months: all six pilot hospitals had successfully enrolled in NHSN by July 2008. Upon enrollment, each participating hospital conferred rights to NMDOH as the designated group administrator responsible for review of the data. The hospitals submitted surveillance data into NHSN for CLABSIs from their adult ICUs starting July 1, 2008 through May 31, 2009 for a total of 11 months. Data from any given month must be submitted to NHSN within 30 days after the end of the prior month; that is why data from June was not included as the pilot ended July 1, 2009 which only allowed for data through May.

As part of enrollment, each pilot hospital designated their NHSN facility administrator; larger hospitals also designated additional NHSN users to enter and review data. Typically,

facility administrators and users are IPs at each hospital. Currently, there are approximately sixteen NHSN users among the pilot hospitals and NMDOH.

NMDOH augmented the enrollment guidance available on the NHSN website through the development and dissemination of the following tools to participating hospitals:

- "How to Join the New Mexico Department of Health HAI Pilot Year Reporting Group"
- "How to Confer Rights to a Group"
- "Frequently Asked Questions about the NM HAI Reporting Pilot Year and the NHSN"

Surveillance and Training

Monthly teleconferences for the NHSN Users' Group began in July, 2008. A written timeline was distributed prior to each teleconference in order to assist pilot participants with monthly requirements. Teleconferences of the first several months were devoted to surveillance methods in general and NHSN definitions in particular in order to assure that all participants understood the definitions and had appropriate systems in place to collect the data.

The monthly conference calls provided a forum to discuss common problems and solutions (e.g., meanings of some surveillance definitions, uncertainly about details of positive blood culture cases, quality initiatives, and using the various NHSN functions). Two monthly meetings were presented as interactive webinars demonstrating how to access the NHSN on-line manual and how to perform various NHSN analysis functions.

Several surveys were performed to assess the progress of each pilot hospital: results were used to identify educational needs and guide subsequent training activities:

- HAI Pilot Hospital Baseline Survey
  - Contact information
  - Number of hospital beds
  - Number of ICU beds
  - CLABSI surveillance performed prior to HAI project and for how long
  - Denominator data collection
  - Other HAI surveillance performed
  - IPs duties and responsibilities and number of years in infection control
  - Problems, issues, questions

- NM Pilot Hospitals Surveillance Methods Questionnaire
  - Laboratory reports of positive cultures
  - Record keeping
  - Understanding of NHSN definitions
  - Decision-making methods for CLABSI
  - Collection methods for denominator data
  - NHSN data entry
  - Data analysis
  - Additional needs assessment
  - HCW influenza vaccination data gathering methods

- Quality Improvements 2008-2009 Questionnaire
  - Hand hygiene

- New products introduced
- Policies changed
- Central line insertion checklist
- Educational in-services

Training Tools Developed

No on-site visits were performed during the pilot year due to limited resources; however, regular contact was maintained with the pilot hospitals via phone and e-mail. The following tools were developed during the course of the pilot year to assist with education and training.

- Monthly timelines
- Frequently Asked Questions about the NM HAI Reporting Pilot Year and the NHSN
- How to Confer Rights to a Group
- How to Join the New Mexico Department of Health HAI Pilot Year Reporting Group
- NMDOH/NHSN Primary BSI Event Sheet (with checklist)
- Positive Bloodstream Infection Case Studies (3 sets)
- Essential Components of CLABSI Surveillance
- Quality Check for Denominator Data
- NHSN Manual Excerpts to Emphasis Certain Surveillance Methods
- Reporting Requirements for HCW Influenza Vaccination Rates
- HCW Influenza Vaccination Rates Data Submission Sheet
- NHSN Analysis Functions – Quick Help Guide
- HAI NHSN Users' Group Confidentiality Agreement
- NHSN Users' Guide

In addition to the monthly teleconferences, IPs from each pilot hospital were encouraged to call NMDOH with any questions or concerns. Topics frequently discussed during individual phone calls with IPs included: a) NHSN enrollment process; b) digital certificates: c) CLABSI events and NHSN definitions (the most frequent set of questions asked); d) collecting HCW influenza vaccination data; e) collecting denominator data; f) NHSN analysis functions; g) entering and modifying data in NHSN.

Each CLABSI event reported was reviewed with the individual IP responsible for the report. There were 26 CLABSI events entered and reviewed with pilot hospitals: only 19 met the NHSN definitions. There were a number of monthly phone calls during which IPs requested assistance interpreting NHSN definitions as they related to positive blood cultures under review as potential CLABSIs. While pediatric ICUs were not formally included in the pilot, participating hospitals also received assistance interpreting pediatric ICU surveillance as it relates to CLABSIs in NHSN. For the more complex cases, NMDOH also consulted with NHSN personnel at CDC.

Results of Surveillance

Details of final data obtained in the HAI pilot can be found in Appendix G (New Mexico Healthcare-Associated Infections Pilot Summary: June 30, 2009). Following are the highlights of CLABSI surveillance and HCW influenza vaccination rates.

CLABSIs

Aggregated CLABSI data from July 1, 2008 – May 31, 2009 was compiled from nine ICUs in six pilot hospitals: 19 CLABSI events were identified per a total of 23,448 line days yielding an overall rate of 0.8 CLABSIs/1000 line days. This aggregate rate for the six participating hospitals is similar to the national NHSN pooled mean rates that are between 1.4 and 2.5 CLABSIs for the same types of ICUs reporting from throughout the country. When broken down between the first six months of the pilot (i.e., July 1, 2008 – December 31, 2008) and the second five months of the pilot (i.e., January 1, 2009 – May 31, 2009), there were 13 CLABSI events/12,666 line days (i.e., 1.0 CLABSIs/1000 line days) and six CLABSI events/10,782 line days (i.e., 0.6 CLABSIs/1000 line days), respectively. The CLABSI events from the first six months of the pilot were statistically compared with the events recorded during the last five months: there was no statistical difference between the two time periods (Normal Theory Exact Test: $p=0.3$). While not statistically significant, the participating hospitals recognize how important it is to monitor trends over time as they institute best practices to eliminate CLABSIs. For example, five of the six pilot hospitals (83%) recently reported that they have changed policies and increased educational in-services in their facilities in an effort to reduce CLABSIs. The New Mexico pilot aggregate results of 0.8 CLABSIs/1000 line days was also compared with the two-year (2006-2007) national aggregate rate of 2.0 CLABSIs/1000 line days in the same types of ICUs that participated in the New Mexico pilot. That comparison revealed a statistically significant lower rate in New Mexico compared nationally: using a two-sided test for incidence rates (normal-theory method) the p-value was $< 0.05$ at 0.00005. This comparison is limited by the fact that national data similar to that gathered by the six hospitals during the pilot was not available for the same time frame (i.e., 2008).

HCW Influenza Vaccination Rates

The aggregated HCW influenza vaccination rate reported by the six pilot hospitals was derived from 9,717 HCWs vaccinated per a total of 17,783 eligible HCWs for a rate of 54.6% of the total HCWs vaccinated. Each of the six individual pilot hospitals exceeded the Joint Commission goal that a minimum of 43% of HCWs be vaccinated against influenza.

NHSN Analysis Functions

The participating hospitals were able to utilize the analysis functions of NHSN during the pilot. Hospital IPs must be able to present infection data to a variety of hospital staff, including physicians and those in quality departments. The analysis functions within NHSN allow IPs to present data—such as infection rates—graphically in various forms. During the pilot, NMDOH presented training about these NHSN analysis functions through webinars.

Quality Initiatives

The collaboration that developed during the monthly teleconferences enabled sharing of policies, procedures, educational methods and other tools aimed at decreasing CLABSIs within hospitals and increasing HCW influenza vaccination rates in those same facilities. When comparing CLABSI rates from the first six months of 2008 to the first five months of 2009, there

appeared to be a decrease in the number of CLABSI events reported. While not statistically significant, the apparent decrease in CLABSI events did prompt discussion among the pilot hospitals. Several questions were posed to determine if any quality initiatives had been instituted or changed during the 11 months of data collection that could account for a decline. The following are results from a survey conducted among the six participating hospitals:

In the past one year in your adult ICU(s):

1. Has hand hygiene compliance improved?
   YES = 3 (50%)  NO = 3 (50%)
2. Have you introduced new products designed to decrease CLABSI?
   YES = 3 (50%)  NO = 3 (50%)
3. Have you changed policy(s) to address how central lines should be accessed?
   YES = 5 (83%)  NO = 1 (17%)
4. Did you implement a central-line insertion checklist?
   YES = 3 (50%)  NO = 3 (50%)
5. Have you increased educational in-services for staff in an effort to reduce CLABSI rates?
   YES = 5 (83%)  NO = 1 (17%)

The following are a sample of anecdotes provided by participating hospitals concerning quality improvements that occurred during the pilot year:

"We celebrated with our ICU as we had seven months of time last year in which we had no central line infections in our ICU, had one infection in September, and have had no infections since that time. We celebrated by purchasing special jackets for our ICU staff to thank them for an outstanding job!"

"When our project improvements were presented to the Board Quality Committee on April 19th, their response being “What would it take to get this [hospital] wide by May 1st?” Since we had only rolled out in the three scope units at that point, you can imagine that we had a difficult task at hand. We have had fabulous Board, administrative and management support for implementing these improvements throughout the [hospital]. Although we obviously did not make implementation by May 1st, we have implemented a roll out plan much sooner than we had originally planned."

"Our CEO, is supportive, involved, understands how important it is to prevent infections in our hospital, he models by taking his Flu shot annually and broadcasts that he has; he also asks me to come to the Board meetings and MEC and offer the influenza vaccination annually for these members. The [hospital] hosts a FREE Influenza vaccination day each year and we give between 3500 – 5000 adult immunizations in six hours."

Public Reporting

The Department of Health issued three news releases about the HAI pilot year: the first one announced the Secretary’s directive for the pilot year; second release contained updates about participants and the two HAI indicators chosen for the pilot year; the third highlighted

legislation that made the HAI group permanent. Hospitals were assured that data from the pilot year would not be released to the public; however, they were willing to present aggregate data to the New Mexico Legislature and plan to work with the HAI AC as reports are developed in upcoming years for the public.

Summary

The pilot year has been a successful collaboration for the participating pilot hospitals, in that it brought together IPs, not only to report HAIs, but also to share ideas and methods designed to improve patient safety in New Mexico. Analysis of the pilot data does not indicate that any of the participating hospitals have rates higher than NHSN national rates. The pilot hospitals' aggregated final HCW influenza vaccination rate was 54.6%: each of the pilot hospitals exceeded the Joint Commission goal of 43%.

## HAI Pilot Recommendations and Future Actions

Background

During the 2009 New Mexico Legislature Session, Senator Dede Feldman, Chair of the New Mexico Health and Human Services Committee, introduced Senate Bill 408 entitled "HOSPITAL-ACQUIRED INFECTION ACT" which can be accessed at: http://www.nmlegis.gov/lcs/_session.aspx?chamber=S&legtype=B&legno=%20408&year=09. This bill was enacted into law.

Senate Bill 408 creates the "hospital-acquired infection advisory committee" within NMDOH to "conduct surveillance of hospital-acquired infections." The Act establishes the advisory committee and defines the actions to be completed by the committee. The Act specifies that the advisory committee membership will include representatives of:

- Consumer of health care services
- New Mexico Association for Professionals in Infection Control and Epidemiology
- New Mexico Hospital Association
- New Mexico Medical Review Association
- Society for Healthcare Epidemiology of America
- Department of Health Infectious Disease Epidemiology Bureau

The advisory committee is required to "identify the specific infections and indicators that are to be subject to surveillance and reporting." It must also "establish objectives, definitions, criteria and standards for the reporting of hospital-acquired infections." The Act states that "To perform HAI surveillance and for the prevention of HAIs the Committee will:

- Establish objectives, definitions, criteria and standards for the reporting of hospital-acquired infections;
- Work with hospitals to identify and recruit volunteer participating hospitals in surveillance of hospital-acquired infections and other indicators;
- Develop objectives and action plans for instituting a statewide program of surveillance of hospital-acquired infections and other indicators;
- Identify the specific infections and indicators that are to be subject to surveillance and reporting;

- Identify, and make recommendations regarding, training in the use of the surveillance system or in the prevention and control of hospital-acquired infections and infectious disease;
- Develop and disseminate to the public appropriate reports of the findings of surveillance;
- Consult as necessary with technical advisors who have regional or national expertise in the prevention and control of hospital-acquired infections and infectious disease."

Hospital Recruitment

The NM HAI AC plans to identify hospitals with adult and/or pediatric intensive care units (ICUs) willing to participate in surveillance of CLABSIs and acute care hospitals—with or without ICUs—willing to participate in surveillance of HCW influenza vaccination. Participation will be voluntary and the goal will be to recruit as many hospitals as possible to collect data on CLABSIs and HCW influenza vaccination rates and utilize NHSN for those indicators beginning January 1, 2010. Attempts will be made to recruit hospitals that see a high volume of patients as well as smaller and rural hospitals from throughout the state. After commitments are obtained from hospitals, training and guidance will be provided for enrollment into NHSN and use of NHSN.

The HAI AC proposes to identify educational needs of participating hospitals and develop curricula to reflect the identified needs. In addition to this tailored training, the HAI AC recommends that basic epidemiology and infection control training and certification opportunities are provided to participating hospital-based infection control professionals.

HAI Indicators

Participating hospitals should confer rights to NMDOH for the selected indicators using the NHSN surveillance system. The HAI AC should determine which indicators hospitals will collect information about that they subsequently will input into NHSN. Initially, plans are for HAI surveillance to be conducted on the incidence of CLABSIs and HCW influenza vaccination rates. Beginning on January 1, 2010, and at least annually thereafter, the HAI AC proposes to identify additional indicators that will be tracked and reported by participating hospitals. Senate Bill 408 recommends that the HAI AC consider the following outcome indicators in addition to CLABSIs:

- Surgical site wound infections
- Ventilator-associated pneumonia
- Catheter-associated urinary tract infections

The HAI AC plans to align its goals and indicators with the Health and Human Services' "Action Plan to Reduce Healthcare-Associated Infections" and associated metrics[35]; therefore, it will also consider the feasibility and priority of adding the following indicators:

- MRSA infections
- *Clostridium difficile* infections

The following factors should be taken into consideration when reviewing potential indicators:

- Recommendations by national consensus guidelines
- Accurate and consistent definition for the indicator

- Ability for data to be conveyed in consumer-friendly fashion
- Availability of data for comparisons
- Ability for indicator to be reviewed across continuum of health care services
- Strength of evidence for methods to achieve effective reduction or elimination of the indicator
- Endorsement of the indicator and prevention methods by groups such as National Quality Forum
- Lack of redundancy with other forms of public reporting for the indicator or processes
- Identified need in New Mexico

The HAI AC plans to also align its goals with those put forth by NMDOH, with the full and active collaboration of the HAI AC, in its applications for HAI American Recovery and Reinvestment Act of 2009 (ARRA) funding. This funding opportunity specifies the development of a state plan to reduce HAIs, education of participating hospitals in NHSN, and development of educational approaches to disseminate best practices among participating hospitals. The intention of this funding opportunity is that state-based efforts align with the HHS goals and metrics as detailed in the HHS Action Plan. The time frame of the awards is from September 1, 2009 through December 31, 2011.

Therefore, an additional role of the HAI AC should be to propose a mechanism, with adequate ongoing funding, to continue to align state and national priorities in the area of HAIs while anticipating further federal action—including potential legislation—in this area. HAI AC activities should, for example, align with current Centers for Medicaid and Medicare Services (CMS) initiatives as they relate to multidrug-resistant organisms (MDROs). Examination of activities in other states, including the structure and work of Patient Safety Organizations (PSOs), should also be undertaken. Finally, innovative ways of delivering education and training for IPs and other specialists in patient safety should be explored.

Prevention and Improvement Strategies

The HAI AC should explore educational strategies to improve quality of care through adoption of best practices and innovations at the facility level. Approaches that should be considered include the involvement of expert advisors as well as ongoing support for system changes by hospitals within a collaborative structure. When possible, the HAI AC should align educational efforts with other national initiatives that address the selected indicators. Reporting facilities should adopt evidence-based standards and recommended practices to assure the safety of patients in general and to minimize the possibility of HAIs in particular. The HAI AC should examine both outcome and process indicators to reduce HAIs at the facility level.

Public Reporting

The NM HAI AC should determine the content, format, venue and frequency of regular reports to the public. The HAI AC should approve dissemination of data as it relates to content: members should assure that comparisons are statistically sound and that the narrative explanations are accurate. The work group should develop methods to assess the comprehensibility and impact of reports as they relate to the public.

Mechanisms for distribution to the public may include press releases, web site postings, media interviews and/or published reports. The work group should continue to make certain that all hospital partners have talking points as the initiative continues so that they can respond accurately and consistently to media and public inquiries. The work group goals for the future are to provide data to the public that are clear and meaningful, to help the public understand why the initiative will focus on certain indicators, and to explain the importance of the work that the state and hospitals are doing to reduce the number of HAIs. The plan is for public reports to be published no later than July 1, 2011 and periodically thereafter.

Legislative Issues

The HAI AC currently supports voluntary participation by healthcare facilities as per Senate Bill 408. The HAI AC also recommends that reporting of HAIs in New Mexico eventually become mandated. Future legislation should be based on the experience of other states and national recommendations and must also include the allocation of appropriate resources to sustain HAI surveillance and reporting that will benefit all New Mexicans. The HAI AC recommends that it work closely with interested legislators and legislative committees to assist in the development of future legislation as it relates to HAIs. The HAI AC plans to provide regular updates regarding HAIs to the New Mexico Legislative Health and Human Services Committee.

Confidentiality of HAI Data

The information obtained during the voluntary HAI pilot is confidential under the provisions of the Public Health Service Act. The HAI program under Senate Bill 408, although containing some mandatory components, remains voluntary with regards to participation by hospitals and facilities. The Act does not contain any confidentiality protections beyond that afforded by the Public Health Service Act. In the future, if the New Mexico Legislature passes legislation requiring mandatory reporting of HAI from healthcare facilities in New Mexico, such legislation would ideally include explicit provisions for the contents of any publicly available reports. It would also ideally include confidentiality provisions for stronger protections for facility-submitted data and information than that provided in the Public Health Service Act. In particular, the language of the legislation should provide for patient privacy and protect facility information. It should state that facility information is not subject to discovery, subpoenas, or other means of legal compulsion and may not be admitted as evidence or otherwise disclosed in any civil, criminal, or administrative proceeding (See Appendix H: Confidentiality under the Current “Voluntary” Program). If New Mexico elects to utilize a Patient Safety Organization (PSO) reporting system in the future, these confidentiality concerns will be moot. PSOs are federally mandated to have extensive confidentiality protections pursuant to the federal Patient Safety and Quality Improvement Act of 2005.

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## APPENDIX A

## ACRONYMS

| | |
|---|---|
| AHA | American Hospital Association |
| AHRQ | Agency for Healthcare Research and Quality |
| APIC | Association for Professionals in Infection Control and Epidemiology |
| ARRA | American Recovery and Reinvestment Act of 2009 |
| BSI | Blood Stream Infection |
| CABG | Coronary Artery Bypass Graft |
| CAUIT | Catheter-associated Irinary Tract Infection |
| CDI | *Clostridium difficile* Infection |
| CDC | Centers for Disease Control and Prevention |
| CLABI | Central line associated bloodstream infection |
| CMS | Centers for Medicare and Medicaid |
| CODPHE | Colorado Department of Public Health and Environment |
| HAI | Healthcare-associated Infection |
| HAI AC | New Mexico HAI Advisory Committee |
| HCW | Healthcare Worker |
| HHS | Department of Health and Human Services |
| HICPAC | Healthcare Infection Control Practices Advisory Committee |
| HPC | Health Policy Commission |
| IHI | Institute for Healthcare Improvement |
| IP | Infection Preventionist |
| ICU | Intensive Care Unit |
| IDSA | Infectious Diseases Society of America |
| IHI | Institute for Healthcare Improvement |
| IOM | Institute of Medicine |
| JCAHO | Joint Commission on the Accreditation of Healthcare Organizations |
| MDRO | Multidrug-resistant organism |
| MRSA | Methicillin-resistant *Staphylococcus aureus* |
| NMDOH | New Mexico Department of Health |
| NHSN | National Healthcare Safety Network |
| NMHA | New Mexico Hospital Association |
| NMMRA | New Mexico Medical Review Association |
| NNIS | National Nosocomial Infections Surveillance |
| NYSDOH | New York State Department of Health |
| PHC4 | Pennsylvania Health Care Cost Containment Council |
| SHEA | Society for Hospital Epidemiology of America |
| SSI | Surgical Site Infection |
| TDH | Tennessee Department of Health |
| VAP | Ventilator-associated Pneumonia |
| VHA | Veterans Health Administration |

## APPENDIX B

## GLOSSARY

Central line-associated bloodstream infection (CLABSI): A primary bloodstream infection (BSI) in a patient that had a central line within the 48-hour period before the development of the BSI. If the BSI develops within the 48-hours of discharge from a location, it is associated with the discharging location. (CDC, The National Healthcare Safety Network Manual: Patient Safety Component Protocol, January, 2008)

Healthcare-associated infection (HAI): A localized or systemic condition that: a) results from an adverse reaction to the presence of an infectious agent or its toxin; and b) was not present or incubating at the time of admission to the healthcare facility. (CDC, The National Healthcare Safety Network Manual: Patient Safety Component Protocol, January, 2008)

Healthcare Worker: Worker with direct patient contact and a proportion of persons working in essential healthcare support services needed to maintain healthcare services (e.g., dietary, housekeeping, admissions, blood collection staff, respiratory therapy staff, imaging services).

Intensive care unit (ICU): A nursing care area that provides intensive observation, diagnosis, and therapeutic procedures for adults and/or children who are critically ill. An ICU excludes nursing areas that provide step-down, intermediate care or telemetry only. Specialty care areas are also excluded. The type of ICU is determined by the kind of patients cared for in that unit. That is, if 80% of patients are of a certain type (e.g., patients with trauma), then that ICU is designated as that type of unit (in this case, trauma ICU). When a unit houses roughly equal populations of medical and surgical patients, it is called a medical/surgical unit. (CDC, The National Healthcare Safety Network Manual: Patient Safety Component Protocol, January, 2008)

Nosocomial: Originating or taking place in a hospital, acquired in a hospital, especially in reference to an infection: in regards to infections, those that were not present or incubating prior to the patient being admitted to the hospital, but that occurred within 72 hours after admittance to the hospital.

Risk adjusted: A standardized method used to ensure that intrinsic and extrinsic risk factors for a healthcare-associated infection are considered in the calculation of healthcare-associated infection rates.

Surveillance: Ongoing, systematic collection, analysis, and interpretation of health-related data essential to the planning, implementation and evaluation of public health practice, closely integrated with the timely dissemination of these data to those responsible for prevention and control.

## APPENDIX C

## LETTER FROM THE SECRETARY OF HEALTH: APPOINTMENT OF THE HAI ADVISORY COMMITTEE

NEW MEXICO DEPARTMENT OF HEALTH

Alfredo Vigil, MD
Secretary

*Building a Healthy New Mexico!*

Bill Richardson, Governor

Katrina Hotrum
Deputy Secretary

Duffy Rodriguez
Deputy Secretary

Jessica Sutin
Deputy Secretary

Karen Armitage, MD
Chief Medical Officer

February 7, 2008

Dear Members of the HJM 67 Task Force,

I would first like to offer my sincere gratitude for your report entitled "Feasibility of Conducting Surveillance for Healthcare-Associated Infections (HAIs) in New Mexico" in response to House Joint Memorial 67. I have carefully read your report studying this important issue and have the following points to make:

- I direct the Epidemiology and Response Division (ERD) of the New Mexico Department of Health to appoint a multi-disciplinary advisory committee to guide the development of HAI surveillance methods, reporting methods to the public, and inform any future legislation on HAI surveillance in New Mexico. It is my hope that you will all be able to continue working on this issue in some fashion.
- The first year of HAI surveillance will be a pilot year that is voluntary for healthcare facilities and provides a confidential report of findings. The New Mexico Hospital Association shall be a key partner in identifying a minimum of three hospitals to participate in this pilot year. These facilities should be identified prior to April 30, 2008.
- Your research and work has identified two logical, evidence-based measures to monitor in this first pilot year: a) central-line-associated bloodstream infections and b) influenza vaccination rates of healthcare workers. These measures should be systematically monitored by the pilot facilities beginning no later than June 30, 2008.
- An analysis of the first month of data collection should occur no later than July 30, 2008. Following the first six months of data collection, a thorough evaluation of the process and quality of data will occur. After the pilot, the measures will be expanded to all acute care hospitals as directed by the Advisory Committee. Other evidence-based measures, as determined by the Advisory Committee may be added in the future depending on resource availability.
- Implementing a system such as the National Healthcare Safety Network (NHSN) will align New Mexico's efforts with national movements and is a logical step forward. Training in this system or a similar system for the pilot facilities should be initiated as

soon as these facilities are identified and should be completed no later than May 15, 2008.

- Your other recommendations regarding reporter liability, patient confidentiality, public reporting method, and identification of healthcare facilities are important elements for the Advisory Committee to consider as this work proceeds.

I recommend that your task force resume meeting as quickly as possible. NMDOH will appoint the Advisory Committee from appropriate stakeholders and ask that as it manages the implementation of HAI surveillance consistent with your recommendations. At this point, no new funds have been identified or procured to perform this work although this may change at some point in the future as this effort develops. I compliment and thank you for your contributions thus far and believe that your expertise will continue to benefit all New Mexicans as we work toward decreasing the burden of healthcare-associated infections.

Sincerely,

Alfredo Vigil, MD
Secretary, New Mexico Department of Health

Cc: Karen Armitage, MD MPH, Chief Medical Officer, New Mexico Department of Health

## APPENDIX D

## MEMBERS OF THE NEW MEXICO HAI ADVISORY COMMITTEE

Facilitator:
Joan Baumbach, MD, MPH, MS
Infectious Disease Epidemiology Bureau Chief, NMDOH

Previous Co-Facilitator:
Christina Ewers, RN, MSN
Infectious Disease Epidemiology Bureau Nurse Epidemiologist, NMDOH

Scribe:
Anne Timmins, MPH, BChD
Quality Improvement Coordinator, New Mexico Medical Review Association (NMMRA)

Karen Armitage, MD
Chief Medical Officer, NMDOH

Carlene Brown, MPH, CPHQ (voting member)
Quality Improvement Manager, New Mexico Medical Review Association (NMMRA)

Sandra Cole, BA
Bureau Chief, Health Facilities Licensing and Certification, NMDOH

Cynthia Connell, BS, MT (ASCP), CIC
Infection Control Consultant, NMDOH

Jeff Dye, MBA, FACHE (voting member)
President and CEO, New Mexico Hospital Association

Emily Hancock, MPH (voting member)
Epidemiologist, NMDOH

Trish Garduño, BS
Project Manager, New Mexico Hospital Association

Sam Howarth, PhD
Director, NM Health Policy Commission

Ellen Interlandi, RN, MHM, NE-BC
Consultant, New Mexico Hospital Association

Mary T. Jaco, RN, MSN, CIC (voting member)
Infection Control Practitioner, Presbyterian Healthcare Services
Central New Mexico

Kristine “Kooch” Jacobus, MA (previous voting member)
Previous Deputy Director, NM Health Policy Commission

Susan M. Kellie, MD, MPH (voting member)
Associate Professor of Medicine
Division of Infectious Diseases, University of New Mexico School of Medicine
Hospital Epidemiologist, University of New Mexico Health Sciences Center, and
New Mexico Veterans' Administration Healthcare System

Carol Moore, RN (voting member)
President of APIC New Mexico and Infection Control Practitioner
Albuquerque Veterans' Administration Medical Center

Sandra O'Kelly, BSN (voting member)
Infection Control/Safety Coordinator, Holy Cross Hospital

Julie Reagan, JD, MPH
Deputy General Counsel, NMDOH

Ophelia Rinaldi, LISW (voting member)
Consumer Representative

David Rodriguez, LPN, LNHA, SMAT
Deputy Director, Division of Health Improvement, NMDOH

C. Mack Sewell, DrPH, MS
State Epidemiologist, NMDOH

Chad Smelser, MD
Medical Epidemiologist, NMDOH

Liz Stefanics, PhD (previous member)
Previous Director, NM Health Policy Commission

David W. Stryker, MD (voting member)
Infectious Disease Practitioner/Epidemiologist
Presbyterian Healthcare Services
SHEA Representative

# APPENDIX E

## NEW MEXICO RULE FOR SMALL NUMBERS AND PUBLIC DATA RELEASE

| Specified population | Numerator | Action |
|---|---|---|
| **Event set*** | | |
| **<20** | **1-3** | **Suppress (and suppress other cells allowing calculation of 1-3)** |
| **>=20** | **all** | **Release** |

*Event set – the set of which the numerator is an immediate subset

Percentages or rates that can be used to determine the value of suppressed cells must also be suppressed.

These guidelines do not relieve the data user of the responsibility to be aware of the confidentiality issues regarding the data and to appropriately present data.

Do not suppress the number of births or deaths at the state, district, or county levels presented by standard racial/ethnic groups, standard age groups, sex, prenatal care, birth weight categories, birth order, plurality, total anomalies, marital status, or NCHS standard 113 cause of death categories.

# APPENDIX F

## NEW MEXICO HEALTHCARE-ASSOCIATED INFECTIONS PILOT
## STATUS REPORT AND PRELIMINARY DATA
## JANUARY 15, 2009

## New Mexico Healthcare-Associated Infections Pilot
## Status Report and Preliminary Data: January 15, 2009

**Which are the 6 hospitals that agreed to participate in the New Mexico healthcare-associated infections pilot year?**

- Gerald Champion Regional Medical Center, Alamogordo, NM
- Heart Hospital of New Mexico, Albuquerque, NM
- Memorial Medical Center, Las Cruces, NM
- Presbyterian Hospital, Albuquerque, NM
- San Juan Regional Medical Center, Farmington, NM
- University of New Mexico Hospital, Albuquerque, NM

**What measures are being reported in the healthcare-associated infection (HAI) pilot year?**
As of July 1, 2008, the New Mexico pilot hospitals started reporting 2 measures: 1) central line associated bloodstream infections (CLABSIs) in a total of 9 adult ICU settings on a monthly basis; and 2) health care worker (HCW) influenza vaccination rates.

**Why are the preliminary pilot year data aggregated with no hospitals identified?**
Six New Mexico hospitals volunteered to participate in a pilot year: they were assured that the first year of HAI surveillance would be treated confidentially. The pilot year data will enable the HAI Advisory Committee to determine how to most accurately and effectively present the data to the public.

**Are there any considerations about which I should be aware when reviewing the data?**
The New Mexico pilot hospitals are entering data into the National Healthcare Safety Network (NHSN), an electronic surveillance system maintained by the Centers for Disease Control and Prevention (CDC). One should be careful when drawing conclusions from this information. For example, age, underlying diseases, or severity of illness are factors that can influence a patient's risk for infection. Hospitals that treat patients at greater risk of infection may be expected to have higher rates. Keep in mind that a hospital's infection rate is only one thing to consider when choosing where to get care. The advice of physicians, the hospital's and specialists' experience with the type of care needed, and other factors unique to each given situation should be considered as well. Few patients and small numbers of infections may distort a given hospital's reported performance.

### Central Line Associated Bloodstream Infection (CLABSI) Rates

**What is a "central line"?**
A "central line" is a flexible tube that is inserted near the patient's heart or into one of the large veins or arteries. A central line can be used to give fluids, measure the amount of fluid in the body, or to give medications. Because of where it is located, it can cause potentially dangerous bloodstream infections.

**What is a "central line day"?**
For purposes of this pilot "central line days" are the total number of days a central line is in place for patients in Intensive Care Units (ICUs). The count is performed each day; each patient with one or more central lines at the time the count is performed is counted as one central line day.

**What is an "intensive care unit"?**
ICUs are hospital units that provide intensive observation and treatment for patients either dealing with, or at risk of developing, life threatening problems. ICUs are described by the types of patients in them; smaller hospitals typically care for both medical and surgical patients in a combined medical/surgical ICU, while larger hospitals typically have separate ICUs for medical patients and surgical patients. Different types of ICUs may treat patients with different levels of patient illness and therefore must be compared by the NHSN protocol only to ICU locations meeting the same definition. Therefore, different ICU types have different associated infection rates when compared within the NHSN system.

**What is a Central Line Associated Bloodstream Infection (CLABSI) Rate?**
The CLABSI rate is the number of infections per 1,000 central line days. Lower rates are better: the goal is to have zero infections. Infection rates can appear to be lower or higher than the national average, but after statistical testing, they may be found to be "similar to the national average." One reason may be that hospitals with a small number of central line days compared to all hospitals enrolled in NHSN (i.e., national comparison group) have more unstable rates. A single infection can result in a rate that is higher than the national average. It is also difficult to draw conclusions from a report of zero infections when there are low numbers of central line days.

**How do hospitals collect and report data?**
Hospitals utilize the NHSN surveillance system to report the data. They are using NHSN definitions and methodology to define CLABSIs**.**

| Central Line Associated Bloodstream Infection (CLABSI) Rates<br>NM Pilot Hospitals surveillance: July 1, 2008 through December 31, 2008 | | | | |
|---|---|---|---|---|
| | **NM Pilot Hospitals 9 ICUs Total Number of Infections** | **NM Pilot Hospitals 9 ICUs Total Number of Central Line Days** | **NM Pilot Hospitals 9 ICUs Combined CLABSI Rate (per 1,000 central line days)** | **NHSN Hospitals Pooled Mean CLABSI Rates (Ranges reflect the different types of Adult ICUs in Pilot) NHSN Summary data, November 2008** |
| Aggregated data | 13* | 12666* | 1.0 | 1.4 – 2.5 |

**Healthcare Worker (HCW) Influenza Vaccination Rates**

**Who is considered a HCW?**
All staff with potential contact with patients and their families and visitors, even those not classified as performing "direct patient care", are considered HCWs; therefore, all paid staff and all medical staff with privileges, plus residents, will be included in this surveillance. "Medical staff" includes all licensed independent providers with hospital privileges, including physicians and midlevel medical providers. Hospitals will not include volunteers and students in their data submission.

**How do hospitals collect and report data?**
All facilities completed a survey about their hospital's current policies and procedures for HCW influenza vaccination. All had the capability of assessing total employee numbers and total medical staff numbers, recording influenza vaccines given, and providing an overall rate of vaccination of hospital employees plus medical staff. Almost all facilities could provide a rate deemed accurate, despite—in most cases—using paper records which were simply counted or transferred to electronic databases for analysis. For this pilot, hospitals report data electronically on a spreadsheet.

**PRELIMINARY INTERIM DATA ONLY**

| Healthcare Worker (HCW) Influenza Immunization Rates<br>Early Influenza Season NM Pilot Hospitals Surveillance through December 15, 2008 | | | | |
|---|---|---|---|---|
| **Hospital** | **Total Number of HCWs Who Received an Influenza Immunization** | **Total Number of HCWs** | **Combined HCW Influenza Immunization Rate** | **Compared with the Joint Commission's Influenza Vaccination Challenge for the 2008-9 season (43%)** |
| Aggregated data (All 6 NM Pilot Hospitals reporting) | 6510 | 17795 | 36.6% | Preliminary data- final will be completed 3/30/2009 and reported by 5/15/2009 |

The data for HCW influenza vaccinations reflect only those HCWs vaccinated for influenza as of December 15th, 2008. Hospital personnel responsible for collecting influenza vaccination data are currently still vaccinating hospital staff. Vaccination for influenza will be ongoing during the winter months; therefore, it is likely that final rates will be higher when hospitals resubmit the number of HCWs vaccinated by March 30, 2009 in their final reports. NMDOH reported the start of the influenza season on January 15, 2009.

*Note: The total number of infections and central line days were updated from original January 15, 2009 report due to more complete data from the pilot hospitals.

# APPENDIX G

## NEW MEXICO HEALTHCARE-ASSOCIATED INFECTIONS PILOT SUMMARY JUNE 30, 2009

## New Mexico Healthcare-Associated Infections Pilot Summary
## June 30, 2009

**Which are the 6 hospitals that agreed to participate in the New Mexico healthcare-associated infections pilot year?**

- Gerald Champion Regional Medical Center, Alamogordo, NM
- Heart Hospital of New Mexico, Albuquerque, NM
- Memorial Medical Center, Las Cruces, NM
- Presbyterian Hospital, Albuquerque, NM
- San Juan Regional Medical Center, Farmington, NM
- University of New Mexico Hospital, Albuquerque, NM

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As of July 1, 2008, the New Mexico pilot hospitals started reporting 2 measures: 1) central line associated bloodstream infections (CLABSIs) in a total of 9 adult ICU settings on a monthly basis; and 2) health care worker (HCW) influenza vaccination rates.

**Why are the preliminary pilot year data aggregated with no hospitals identified?**
Six New Mexico hospitals volunteered to participate in a pilot year: they were assured that the first year of HAI surveillance would be treated confidentially. The pilot year data will enable the HAI Advisory Committee to determine how to most accurately and effectively present the data to the public.

**Are there any considerations about which I should be aware when reviewing the data?**
The New Mexico pilot hospitals are entering data into the National Healthcare Safety Network (NHSN), an electronic surveillance system maintained by the Centers for Disease Control and Prevention (CDC). One should be careful when drawing conclusions from this information. For example, age, underlying diseases, or severity of illness are factors that can influence a patient's risk for infection. Hospitals that treat patients at greater risk of infection may be expected to have higher rates. Keep in mind that a hospital's infection rate is only one thing to consider when choosing where to get care. The advice of physicians, the hospital's and specialists' experience with the type of care needed, and other factors unique to each given situation should be considered as well. Few patients and small numbers of infections may distort a given hospital's reported performance.

### Central Line Associated Bloodstream Infection (CLABSI) Rates

**What is a "central line"?**
A "central line" is a flexible tube that is inserted near the patient's heart or into one of the large veins or arteries. A central line can be used to give fluids, measure the amount of fluid in the body, or to give medications. Because of where it is located, it can cause potentially dangerous bloodstream infections.

**What is a "central line day"?**
For purposes of this pilot "central line days" are the total number of days a central line is in place for patients in Intensive Care Units (ICUs). The count is performed each day; each patient with one or more central lines at the time the count is performed is counted as one central line day.

**What is an "intensive care unit"?**
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**What is a Central Line Associated Bloodstream Infection (CLABSI) Rate?**
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**How do hospitals collect and report data?**
Hospitals utilize the NHSN surveillance system to report the data. They are using NHSN definitions and methodology to define CLABSIs**.**

| Central Line Associated Bloodstream Infection (CLABSI) Rates<br>NM Pilot Hospitals surveillance: July 1, 2008 through May 31, 2009 | | | | |
|---|---|---|---|---|
| | **NM Pilot Hospitals 9 Adult ICUs Total Number of Infections** | **NM Pilot Hospitals 9 Adult ICUs Total Number of Central Line Days** | **NM Pilot Hospitals 9 Adult ICUs Combined CLABSI Rate (per 1,000 central line days)** | **NHSN Hospitals Pooled Mean CLABSI Rates (Ranges reflect the different types of Adult ICUs in Pilot) NHSN Summary data, November 2008** |
| Aggregated data | 19 | 23448 | 0.8 | 1.4—2.5 |

**Healthcare Worker (HCW) Influenza Vaccination Rates**

**Who is considered a HCW?**
All staff with potential contact with patients and their families and visitors, even those not classified as performing "direct patient care", are considered HCWs; therefore, all paid staff and all medical staff with privileges, plus residents, will be included in this surveillance. "Medical staff" includes all licensed independent providers with hospital privileges, including physicians and midlevel medical providers. Hospitals will not include volunteers and students in their data submission.

**How do hospitals collect and report data?**
All facilities completed a survey about their hospital's current policies and procedures for HCW influenza vaccination. All had the capability of assessing total employee numbers and total medical staff numbers, recording influenza vaccines given, and providing an overall rate of vaccination of hospital employees plus medical staff. Almost all facilities could provide a rate deemed accurate, despite—in most cases—using paper records which were simply counted or transferred to electronic databases for analysis. For this pilot, hospitals report data electronically on a spreadsheet.

| Healthcare Worker (HCW) Influenza Immunization Rates<br>NM Pilot Hospitals Surveillance through March 30, 2009 | | | | |
|---|---|---|---|---|
| **Hospital** | **Total Number of HCWs Who Received an Influenza Immunization** | **Total Number of HCWs** | **Combined HCW Influenza Immunization Rate** | **Compared with the Joint Commission's Influenza Vaccination Challenge for the 2008-9 season (43%)** |
| Aggregated data (6 NM Pilot Hospitals reporting) | 9717 | 17783 | 54.6% | All 6 pilot hospitals exceeded the Joint Commission goal of 43% vaccinated |

NMDOH reported the start of the influenza season on January 4, 2009.

# APPENDIX H

## CONFIDENTIALITY UNDER THE CURRENT "VOLUNTARY" PROGRAM

Hospitals volunteering in the current New Mexico HAI program participate by enrollment in the National Healthcare Safety Network (NHSN). NHSN is an internet-based surveillance system established through the Centers for Disease Control and Prevention (CDC). CDC is authorized under Title III, Sections 301, 304 and 306 of the Public Health Service Act to collect data on HAIs. Thus, the information received from hospitals through their enrollment and participation in NHSN is subject to the U.S. Public Health Service Act.

Upon enrollment into NHSN, each facility is given the following assurance of confidentiality:

> The information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not be disclosed or released without the consent of the individual, or the institution in accordance with Section 304, 306, and 308(d) of the Public Health Service Act (42 USC 242b, 242k, and 242m(d)).[3]

CDC interprets this confidentiality protection to apply to all information provided to NHSN by hospitals and other healthcare providers. The specific provision of the Public Health Service Act applicable to public disclosure, section 242m(d), provides as follows:

> No information, if an establishment or person supplying the information or described in it is identifiable, obtained in the course of activities undertaken or supported under [applicable sections of the Public Health Service Act] may be used for any purposes other than the purpose for which it was supplied unless such establishment or person has consented … to its use for such other purposes[.]

Thus, the information collected under the HAI pilot is confidential pursuant to 42 U.S.C. 242m(d). It may not be released or disclosed for any purposes other than the purposes for which it was supplied unless the person and institution has consented to its release. CDC applies a very strict stance with regards to disclosure of the information. For example, if a patient requests his or her own records contained in any submitted information, CDC takes the position that the records cannot be released unless the institution involved also consents to the release.

### Confidentiality of Mandatory Reporting Programs

The HAI Pilot Project was a voluntary program. The HAI program under SB 408, although containing some mandatory components, remains voluntary with regards to participation by hospitals and facilities. SB 408 does not contain any confidentiality protections beyond that afforded by the Public Health Service Act. Due to an increased public awareness of HAIs and the uses of data collection,

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[3] *See, CDC, National Healthcare Safety Network (NHSN). Purposes, Eligibility, Requirements, and Confidentiality*. Available online at: http://www.cdc.gov/ncidod/dhqp/pdf/nhsn/NHSNPurposesEligibilityRequirementsConfidentiality.pdf. Accessed on March 3, 2008

there has been a movement for public disclosure of healthcare infection rates in the United States.[4] Several states have enacted legislation for the mandatory reporting of HAIs, and most include provisions for public disclosure. These statutes also, however, include varying levels of confidentiality protections.

Colorado's statute provides an excellent example. Colorado law requires the production and public disclosure of an annual report which compares the risk-adjusted, hospital-acquired infection rates for each individual health facility in the state. The report includes a discussion of findings, conclusions, and trends concerning the overall state of hospital-acquired infections in the state, including a comparison to prior years when available. C.R.S. 25-3-603. However, the Colorado law also provides for the confidentiality of patient and facility information. The statute protects any information that could be used to identify a patient, including the patient's social security number. C.R.S. 25-3-604 (2007). It also protects information gained from a health facility from public disclosure, discovery, subpoena, or other means of legal compulsion. C.R.S. 25-3-605. The information may not be admitted as evidence or otherwise disclosed in a civil, criminal or administrative proceeding.[5]

If New Mexico legislation is introduced in the future to enact a comprehensive mandatory HAI reporting system, it is suggested that the following provisions should be incorporated to provide further confidentiality protection to any information reported:

- Patient confidentiality shall be strongly protected.
- Legislation should clarify that published infection rates do not establish a standard of care.
- Social security numbers and other patient identifying numbers should be protected.
- Any data, materials, or underlying documents are exempt from public disclosure, are not subject to discovery, and are not admissible as evidence in any legal proceeding.

In conclusion, the information gathered under the current HAI program is confidential under the provisions of the Public Health Service Act. If the New Mexico Legislature decides to introduce legislation requiring mandatory reporting of HAIs from all health-care facilities in New Mexico, that legislation should include explicit provisions for the contents of any publicly available reports. In addition, such legislation should include confidentiality provisions to provide for stronger protections for facility submitted data and information than that provided in the Public Health Service Act. In particular, the language of the legislation should provide for patient privacy and protect facility information. It should state that facility information is not subject to discovery, subpoenas, or other means of legal compulsion and may not be admitted as evidence or otherwise disclosed in any civil, criminal, or administrative proceeding.

It is also important to note that if the Committee elects to utilize a Patient Safety Organization (PSO) reporting system in the future, these confidentiality concerns will be moot. PSOs are federally mandated to have extensive confidentiality protections pursuant to the federal Patient Safety and Quality Improvement Act of 2005.

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[4] United States Department of Health & Human Services. *Statement by Denise Cardo, Director, Division of Healthcare Quality Promotion, CDC, on the CDC's Role in Monitoring and Preventing Healthcare-Associated Infections.* Before the Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, U.S. House of Representatives. March 29, 2006.

[5] *Id.*

# APPENDIX I

## HEALTHCARE WORKERS INFLUENZA IMMUNIZATION GUIDELINES FOR THE NEW MEXICO PILOT YEAR

### Healthcare worker influenza immunization rate

Background

The following requirements for reporting rates of employee influenza immunization are based on a pilot survey of 7 hospitals in New Mexico. All facilities surveyed had the capability of assessing total employee numbers, total medical staff numbers, recording influenza vaccines given, and providing an overall rate of immunization of hospital employees plus medical staff. Almost all facilities could provide a rate deemed accurate, despite using, in most cases, paper records which were simply counted or transferred to electronic databases for analysis.

Measurement of unit-specific influenza vaccination rates may be performed for internal quality assurance purposes and to guide vaccination efforts, but unit-specific rates are not required for the pilot project. The pilot project acknowledges the fluidity of staffing in hospitals and staff turnover. All staff have potential contact with patients and their families and visitors, even those not classified as performing "direct patient care", hence all paid staff and all medical staff with privileges, plus residents, will be included in this surveillance. Many medical staff maintains privileges at multiple facilities, and many healthcare workers work at more than one facility, so these individuals may be counted more than once. "Medical staff" includes all licensed independent providers with hospital privileges, including physicians and midlevels. In this setting, an employee's or physician/midlevel's report that they were immunized elsewhere is sufficient to document vaccination for that healthcare worker.

Hospitals should not include volunteers and students in their data submission. Many hospitals include volunteers in their vaccination programs, but volunteers are not usually included in employee health records and may also be immunized elsewhere. Students may intern at multiple facilities. Hosting facilities have vaccination requirements for students, and are encouraged to add a requirement for influenza vaccination.

Other opportunities for facilities include participation in the New Mexico Influenza Vaccine Consortium to facilitate the supply of vaccine and materials to support employee immunization programs. University Hospital has enrolled in the University Health Consortium Influenza Vaccination Benchmarking Project to improve healthcare worker immunization rates. All facilities accredited by the Joint Commission are encouraged to participate in the Joint Commission's Influenza Vaccination Challenge for the 2008-9 influenza season. The Joint Commission will recognize all facilities achieving immunization rates of healthcare workers higher than the historical norm of 43%. From the results of our pilot survey, we would expect all participants to be able to achieve this recognition. This program is being run by Joint Commission Resources and participants may enroll at www.fluvaccinationchallenge.com.

Reporting requirements

**Core measures for the pilot project include the following:**

**Denominator:**
# of all hospital employees (non-physician) on payroll as of September 30, 2008 (current immunization season) (Note: the number should be the number of individuals employed, not FTE).

PLUS

# of medical staff (including employed physicians and residents) as of September 30, 2008.
Denominator data must be submitted to the project by November 1, 2008

**Numerator:**
# of all hospital employees immunized as of March 31, 2009 (current immunization season)

PLUS

# of medical staff immunized as of March 31, 2009 (includes resident physicians)
Numerator data must be submitted to the project by May 15, 2009

**Information on data gathering and analysis:**
Participants are also required to submit a brief description of their HCW vaccination processes, to include the following:

1. How information is obtained to ascertain number of employees on payroll and all medical staff (plus residents).
2. How the information on each individual immunized is collected (consent form, roster, direct entry into computer system etc).
3. How the immunization data are linked to the employee database and medical staff database (data entry on each individual, automated system, tally of paper records such as consent forms or roster etc).

As applicable, how information is collected on employees declining influenza vaccination (declination form, roster etc).

**APPENDIX J**


# National Healthcare Safety Network (NHSN) Users Guide: Healthcare-Associated Infection (HAI) Reporting in New Mexico

***Please note:*** *This is a teaching guideline for New Mexico Facilities Participating in HAI Reporting in New Mexico.*

*Information and instruction concerning NHSN should be accessed directly through the NHSN website for the most recent and up-to-date information.*

If you have questions, call Cynthia A. Connell, BS, MT (ASCP), CIC at 505-554-1696.

# National Healthcare Safety Network (NHSN) Users' Guide: Healthcare-Associated Infection (HAI) Reporting in New Mexico

TABLE OF CONTENTS PAGE NUMBER

**NHSN Users' Guide:** Healthcare-Associated Infection (HAI) Reporting in New Mexico

Public reporting of HAI in New Mexico is voluntary and will be performed under the direction and supervision of the New Mexico Department of Health (NMDOH). Facilities will use the Center for Disease Control's (CDC) NHSN system to enter required Central Line-Associated Bloodstream Infections (CLABSI) HAI data and Healthcare Worker Influenza Vaccination Rate data. Qualified facilities must:

## A. ENROLL IN NHSN

NHSN is a web-based system. Read **About NHSN** to learn more about NHSN, its purpose, confidentiality and how data is used and reported in the system.

1. **Review NHSN Enrollment Requirements**
    a. Eligibility Criteria
    b. Reporting Requirements for Participation
    c. System Requirements
    d. Designate your NHSN Facility Administrator

**NOTE:** The person designated as the **NHSN Facility Administrator** is the only person who can enroll a facility in NHSN or reassign the role of Facility Administrator. This person will also confer rights to the NMDOH. Therefore, this role should be given to an individual who has the authority to perform these functions within your hospital's organizational structure. The Facility Administrator must follow the steps in the order listed on the NHSN website to ensure successful enrollment.

2. **Review Required Training and Documents:**
   **Designated Facility Administrator** At this time these include:
    a. NHSN Facility Administrator Enrollment Guide June 2008. PDF (970 KB / 29 pages)
    b. NHSN Enrollment & Facility Start-up
    c. Patient Safety Component
    d. Healthcare Personnel Safety Component
    e. NHSN Manual: Patient Safety Component Protocols March 2009 PDF (3.20 MB / 205 pages)

   **Designated User(s)** (Review training materials applicable to tasks)
    a. NHSN User Start Up Guide June 2008 PDF (1.29MB / 24 pages)
    b. Patient Safety Component
    c. Healthcare Personnel Safety Component
    d. NHSN Facility Administrator Enrollment Guide June 2008. PDF (970 KB / 29 pages)
    e. NHSN Manual: Patient Safety Component Protocols March 2009 PDF (3.20 MB / 205 pages)

See FAQs About Enrollment for Frequently Asked Questions concerning NHSN enrollment.

See NHSN Security to learn more about security systems in NHSN and specific computer requirements.

3. Begin Enrollment **Process**

**Download and review** the NHSN Facility Administrator Enrollment Guide (2.a. above) for detailed enrollment instructions.

**Review the following documents and fulfill training requirements:**

Purposes, Eligibility, Requirements and Confidentiality April 2006 PDF (46 KB / 2 pages)

NHSN Manual: Patient Safety Component Protocols (2.e. above)

***NOTE:*** *Please make sure that your email system will not block emails from nhsn@cdc.gov and PHINTech@cdc.gov before beginning enrollment.*

**Next Steps:** (Read the detailed instructions available at Begin Enrollment)

a. **Read the NHSN Rules of Behavior.**
b. **Register your facility in the NHSN.**
c. **Obtain your Digital ID Certificate from the Secure Data Network (SDN)**

*Note:* Each person in the facility with access to NHSN must have their own digital certificate. Digital Certificates expire one year from the date of its original installation. You will receive an email from NHSN with instructions on how to apply for a new digital certificate thirty days prior to expiration of your digital certificate.

d. **Complete Enrollment Forms**
e. **Send Consent form to CDC**
f. **Begin using the NHSN Reporting application**

**Helpful NHSN Websites:**

Digital certificate information for Facility Administrators: NHSN Facility Administrator Enrollment Guide; for Users: NHSN User Start-up Guide

Patient Safety Component includes surveillance methods to identify and track device-associated infections, including CLABSIs.

Device Associated Module (DA Module) additional detailed information for device-associated surveillance

CLABSI Protocols Slideset

Data Collection Forms NHSN forms for Enrollment, Patient Safety, & Device-Associated Modules

NHSN Training includes webcast training, associated required training documents as well as PowerPoint slide sets on NHSN Enrollment, Facility Startup: Getting Started in NHSN: Adding Users, Locations, and Surgeons, NHSN Overview, includes information on surveillance in NHSN, Locations and Monthly Reporting Plans.

Data & Statistics NHSN and NNIS summary reports of aggregated infection rates

Resource Library NHSN Guides, Codes, Variables, NHSN Patient Safety Component documents, and "FAQs" on a wide variety of topics

Contact NHSN information on how to contact NHSN

## B. ONCE ENROLLED in NHSN:

Once you have successfully downloaded and installed your digital certificate, you can access NHSN by going to the SDN website at: https://sdn.cdc.gov

From the NHSN home page, you can access the **NHSN Online Manual** by clicking on "Help" in the upper right hand corner of the page (opens a separate window).

The **NHSN Online Manual** guides the NHSN user through the definitions, reporting instructions, and capabilities relevant to the NHSN application. In an effort to ensure standardization of data collection and reporting procedures, considerable detail is provided throughout this help system.
***Note:*** *Extensive information is found in this easy-to-use online manual. Scroll through the "**Contents Tab**" for NHSN information; use the "**Index**" as a dictionary for terms used in NHSN and the "**Search**" function allows the user to search the Online Manual.*
***See Appendix A*** *for a sample of the Contents outline in the NHSN Online Manual.*

## C. PRIOR to CLABSI HAI DATA COLLECTION:

1. **Define your hospital locations** using CDC criteria. Define Intensive Care Units as required by the NMDOH HAI program where you will be performing CLABSI HAI surveillance. (This allows similar units to be compared between facilities and nationally.)

   Read the information listed:
   - **NHSN Online Manual:** Patient Safety Component: **Definition of Key Terms**
     - **CDC Location**
     - **Intensive Care Unit (ICU)**
     - **Location**
   - **NHSN Online Manual:** Patient Safety Component: **CDC Location Labels and Descriptions**

   See also: NHSN Manual: Patient Safety Component Protocols , Chapter 16, NHSN Key Terms, for the definitions for "CDC Location" and "Location"; See Chapter 15 for CDC Location Labels and Location Descriptions.
   See also: NHSN Overview Training slideset

2. **Add Locations** for your facility within the NHSN system:

   Follow the instructions listed:
   - **NHSN Online Manual:** Popular Topics: **Add a Location** for a step-by-step guide.
   - **NHSN Online Manual**: Patient Safety Component: How To: **Locations** for additional information.

   See also: PowerPoint slide set: Getting Started in NHSN: Adding Users, Locations, and Surgeons

3. **Submit a monthly reporting (surveillance) plan** identifying required reporting indicators as determined by the NMDOH. For NM HAI Reporting, currently only the HCW influenza vaccination module in the "Healthcare Personnel Safety Component" of NHSN and for those with adult and/or pediatric ICUs, the CLABSI module of device associated infections in the "Patient Safety Component" of NHSN are required.

   Follow the instructions listed:
   - **NHSN Online Manual:** Patient Safety Component: **Patient Safety Monthly Reporting Plan**

   See also: Data Entry, Import and Customization Webcasts and Slidesets in the NHSN Training section

4. **Join** the **New Mexico Department of Health HAI Reporting Group**
   This is done by your Facility Administrator and allows your facility to join the NMDOH Group.

   See **Appendix C** of this Guide for complete instructions or Follow the instructions listed:
   - **NHSN Online Manual:** Patient Safety Component: How To: Group: **Join a Group.**
   - **For NMDOH:**
     - The Group ID is **12934**
     - The Group Joining Password is **NewMexico1**

5. **Confer rights to the New Mexico Department of Health**
   This is done by your Facility Administrator and allows access of your facility's HAI data to the NMDOH.

   See **Appendix D** of this Guide for complete instructions.
   - Your locations must have already been created within NHSN.
   - You must have already joined the group "NMDOH".

   Or Follow the instructions listed:
   - **NHSN Online Manual:** Patient Safety Component: How To: Group: **Confer Rights to a Group.**

See also: Conferring Rights to Groups Webcasts and Slidesets in the NHSN Training section

By conferring rights to NMDOH, you allow the Department to view your facility's entered HAI data. The data entered will be used to prepare reports that will be made available to the public no later than July 1, 2011 per New Mexico Senate Bill 408. It is your facility's responsibility to assure that the data is accurate, complete and up-to-date by the required deadlines.

## D. DATA COLLECTION - CLABSI:

1. **Review the NHSN definitions** for central lines and review with staff how to collect the denominator data (patient days and central line days). Remind staff that denominator data should be collected at the same time each day.

   Read the information listed:
   - **NHSN Online Manual:** Patient Safety Component: **Definitions of Key Terms**:
     - **Central Line**
     - **Device Days**
     - **Infusion**
     - **Permanent central line**
     - **Temporary central line**
   - **NHSN Online Manual:** Patient Safety Component Frequently Asked Questions (FAQS): Device Associated Module: FAQ: **CLABSI**
   - **NHSN Online Manual:** Patient Safety Component: Device Associated Module: **Data Collection Methodology for Device-Associated Module**
   - **NHSN Online Manual:** Patient Safety Component: Device Associated Module: Central Line-Associated Bloodstream Infection (CLABSI): **CLABSI Terms and Definitions**
     - **Central Line**
     - **Umbilical Catheter**
     - **Laboratory-confirmed bloodstream infection (LCBI)**
     - **Clinical sepsis**

   See also: Central Line-Associated Bloodstream Infection (CLABSI) Event of the NHSN Manual: Patient Safety Component Protocols

See also: CLABSI Protocols Slideset

2. **Collect Denominator Data (Line Days and Patient Days) for CLABSIs**
   Read the information listed:
   - **NHSN Online Manual:** Patient Safety Component: Device Associated Module: **Data Collection Methodology for Device-Associated Module**
   - **NHSN Online Manual:** Patient Safety Component: Device Associated Module: Denominators for Device-Associated Module: **Denominators for ICU/Other Locations**
   - **NHSN Online Manual:** Patient Safety Component: **Definition of Key Terms**
     - **Device days**
     - **NHSN patient days**

Use the form labeled "Denominators for Intensive Care Unit (ICU)/Other location (not NICU or SCA)" to collect CLABSI Denominator Data (Pt days and Central line days).
See Data Collection Forms Patient Safety Component, DA Module, CLABSI. There is a customizable form available.

**Note:** Use NHSN Forms to collect all required data, using the definitions of each data field. To minimize the Infection Preventionist's (IP) data collection burden, others may be trained to collect the denominator data. "Device-associated denominator data should be collected at the same time each day. hen denominator data are available from electronic databases (e.g., ventilator days from respiratory therapy), these sources may be used as long as the counts are not substantially different (+/- 5%) from manually collected counts." Section 1; page 4 NHSN Overview of the NHSN Manual: Patient Safety Component Protocols

3. **Collect Numerator Data (Infections) for CLABSIs**
   Read the information listed:
   - **NHSN Online Manual:** Patient Safety Component: Device Associated Module: **Central Line-Associated Bloodstream Infection (CLABSI)**
     - **Primary BSI**
     - **Pathogens & Codes**

     **CLABSI Terms and Definitions**
     - **Central Line**
     - **Umbilical Catheter**
     - **Laboratory-confirmed bloodstream infection (LCBSI)**
     - **Clinical Sepsis**
   - **NHSN Online Manual:** Patient Safety Component: Frequently Asked Questions (FAQS): Device Associated Module: **FAQ: CLABSI**
   - **NHSN Online Manual:** Patient Safety Component: **Definition of Key Terms**
     - **Central Line-associated Bloodstream Infection (CLABSI)**
     - **Device-associated infection**
     - **Healthcare-associated infection (HAI)**
     - **Secondary bloodstream infection (BSI)**
     - **Transfer rule**

Use the "Primary Bloodstream Infection (BSI)-NMDOH Approved Form" to collect CLABSI event data. See **Appendix B** for a copy of the approved form. This form differs from the NHSN version only on page three in that it includes a check list that participating IPs should complete during their chart review. The check list will assist in determining if a positive blood culture meets CLABSI definitions.
See Data Collection Forms DA Module, CLABSI for the NHSN Primary BSI form.

The NHSN device-associated module "requires active, patient-based, prospective surveillance of device-associated infections and their corresponding denominator data by a trained Infection Preventionist (IP). This means that the IP shall seek out infections during a patient's stay by screening a variety of data sources, such as laboratory, pharmacy, admission/discharge/transfer, radiology/imaging, and pathology databases, and patient charts, including history and physical exam notes, nurses/physicians notes, temperature charts, etc. Others may be trained to screen data sources for these infections, but the IP must make the final determination. Laboratory-based surveillance should not be used alone, unless all possible criteria for identifying an infection are solely determined by laboratory evidence. Retrospective chart reviews should be used only when patients are discharged before all information can be gathered."
See: NHSN Manual: Patient Safety Component Protocols

- NHSN Overview: Device-Associated Module: Page 1-1 to 1-5
- Identifying HAI in NHSN : Page 2-1 to 2-2
- CLABSI Event: Page 4-1 to 4-7
- NHSN Key Terms: Page 16-1 to 16-10
- Tables of Instructions: Instructions to complete the BSI form: Table 2; page 14-7

Reviewing positive blood cultures requires that the IP be familiar with ALL HAI as defined in NHSN as some bacteremias may be secondary to another source in the patient. See also:
CDC/NHSN Surveillance Definition of HAI and Criteria for Specific Types of Infections in the Acute Care Setting

Comparisons of HAI data are valid only if all facilities:

- Use the same surveillance intensity
- Use similar data collection methods
- Apply the same surveillance definitions

NMDOH has created "Essential Components of CLABSI Surveillance". Infection Preventionists and others responsible for public reporting of HAIs should ensure that all aspects of these components are being met. NMDOH also recommends that each hospital have an internal mechanism to review positive blood cultures so that a single person is not solely responsible for making the decision if a blood culture meets the definition of a CLABSI. Qualified personnel include other Infection Preventionists, Epidemiologist, Hospitalist or other appropriate hospital personnel well-versed in the NHSN definitions for HAIs.

### Essential Components of CLABSI Surveillance by New Mexico Hospitals

1) System in place to review all positive blood cultures on ICU patients
   a) Blood cultures collected while patient is in the ICU
   b) Blood cultures collected in the 48 hours immediate post transfer to another in-patient unit in the same hospital ("Transfer Rule")

2) Clear understanding of NHSN Definitions

a) Device-Associated Module - Methodology
b) Central Line-Associated Bloodstream Infection (CLABSI) Event
c) Central Lines (including Temporary and Permanent)
d) Location Definitions including Attribution and Transfer Rules
e) All NHSN HAI definitions (to rule out secondary bacteremias)

3) Collection of Denominator Data (Central line days and Patient Days)
   a) Must ensure this data is accurate and complete

4) Data Entry
   a) Must ensure data entry is accurate and complete

5) Data Analysis
   a) Understanding of how CLABSI rates are calculated

## E. NHSN DATA ENTRY :

How to perform data entry in NHSN is well described in the NHSN Online Manual. When the user is online and entering data in NHSN, many fields have a "help" key attached that can assist to clarify definitions, data entry requirements, etc.

***NOTE:***
The NMDOH requires the same 'required fields' as directed by NHSN, *with one exception*. **NMDOH requests that the date the central line was inserted is entered in NHSN for all CLABSI events.** This is found under the "Risk Factors" on the CLABSI event form.

Read the information listed:

- **NHSN Online Manual:** Patient Safety Component:
  - **Patient Safety Monthly Reporting Plan**

  **General Data Entry Instructions:**
  - **Patient Information**
  - **Event Information**
  - **Event Details**

  **Device Associated Module:**
  - **Data Collection Methodology For Device-Associated Module**
  - **Central Line-Associated Bloodstream Infection (CLABSI)**
    - ✓ **Primary Bloodstream Infection (BSI)**
    - ✓ **Pathogens & Codes**
  - **CLABSI Terms and Definitions**
    - **Central Line**
    - **Umbilical Catheter**
    - **Laboratory-confirmed bloodstream infection (LCBI)**
    - **Clinical sepsis**
  - **Denominators for Device-Associated Module**

- **Denominators for ICU/Other Locations**

Denominator data can be electronically uploaded into NHSN. Your information systems group should be able to work with NHSN to develop the transfer of information.

**Reporting Requirements for Participation in NHSN:**

- Use the NHSN Internet-based data entry interface and/or data import tools for reporting data to CDC.
- Successfully complete an **annual survey** for each component selected.
- Successfully complete one or more modules of the component selected. Successful completion requires the following:
  - For the selected component, **submit a reporting plan each month** to inform CDC which, if any, of the modules will be used for that month. Data for at least one module must be submitted for a minimum of six months of the calendar year to maintain active status.
  - Adhere to the selected module's protocol(s) exactly as described in the NHSN Manual during the months when one or more NHSN modules are used. This includes using surveillance methodology appropriate for the module and as described in the protocol.
  - Report adverse events/exposures and appropriate summary or denominator data as required for the module(s) indicated on the reporting plan to CDC **within 30 days of the end of the month**.
  - Pass quality control acceptance checks that assess the data for completeness and accuracy.
- NHSN facilities must agree to report to state health authorities those outbreaks that are identified in their facility by the surveillance system and about which they are contacted by CDC.
- Failure to comply with these requirements will result in withdrawal from the NHSN. Such facilities will be offered the opportunity to download their data before being withdrawn. Six months after withdrawal, a facility may apply for reenrollment into the NHSN.

# Appendix A

NHSN Online Manual – Contents Tab – *Partial list*

Each "book"  opens a chapter of information

Each "question mark page"  brings you to specific information about that topic

- Welcome
- Popular Topics
- About NHSN
- Patient Safety Component
  - Definition of Key Terms
  - CDC Location Labels and Descriptions
  - Patient Safety Monthly Reporting Plan
  - Frequently Asked Questions (FAQs)
  - Annual Surveys & Facility Contact Information
  - General Data Entry Instructions
  - Device-Associated Module
    - Data Collection Methodology for Device-Associated Module
    - Catheter-Associated Urinary Tract Infection (CAUTI)
    - Central Line-Associated Bloodstream Infection (CLABSI)
      - Primary Bloodstream Infection (BSI)
      - Pathogens & Codes
      - CLABSI Terms and Definitions
        - Central Line
        - Umbilical Catheter
        - Laboratory-confirmed bloodstream infection (LCBI)
        - Clinical sepsis
    - Central Line Insertion Practices (CLIP)
    - Dialysis Event (DE)
    - Ventilator-Associated Pneumonia (VAP)
    - Denominators for Device-Associated Module
- High Risk Inpatient Influenza Module
- MDRO & CDAD Module

# Appendix B

## Primary Bloodstream Infection (BSI)

OMB No. 0920-0666
Exp. Date: 03-31-2011

Page 1 of 3 **New Mexico Department of Health Approved Form**

| | | |
|---|---|---|
| *required for saving **required for completion<br>Facility ID: | Event #: | |
| *Patient ID: | Social Security #: | |
| Secondary ID: | | |
| Patient Name, Last: | First: | Middle: |
| *Gender: F M | *Date of Birth: | |
| Ethnicity (specify): | Race (specify): | |
| *Event Type: BSI | *Date of Event: | |
| Post-procedure BSI: Yes No | Date of Procedure: | |
| NHSN Procedure Code: | ICD-9-CM Procedure Code: | |
| *MDRO Infection: Yes No | *Date Admitted to Facility: | *Location: |

**Risk Factors**

*If ICU/Other locations, Central line: Yes No

*If Specialty Care Area, Location of Device Insertion: _____

Permanent central line: Yes No

Temporary central line: Yes No *Date of Device Insertion: __/___/_____

*If NICU,

Non-umbilical Central line: Yes No

Umbilical catheter: Yes No

Birth weight (grams):

**Event Details**

*Specific Event:

☐ Laboratory-confirmed ☐ Clinical sepsis

*Specify Criteria Used:

Signs & Symptoms (check all that apply)

Any patient

☐ Fever

☐ Chills

☐ Hypotension

≤1 year old

☐ Fever

☐ Hypothermia

☐ Apnea

☐ Bradycardia

Laboratory (check one)

☐ Recognized pathogen from one or more blood cultures

☐ Common skin contaminant from ≥2 blood cultures

☐ Blood culture not done or no organisms detected in blood

Clinical Diagnosis (CSEP only)

☐ Physician institutes appropriate antimicrobial therapy

| | |
|---|---|
| **Died: Yes No | BSI Contributed to Death: Yes No |
| Discharge Date: | *Pathogens Identified: Yes No *If Yes, specify on page 2 |



CDC 57.108 (Front) Rev. 1 , NHSN v1.3.5

# Primary Bloodstream Infection (BSI)

OMB No. 0920-0666
Exp. Date: 03-31-2011

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| Pathogen # | Gram-positive Organisms | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| _____ | Coagulase-negative staphylococci (specify): _____ | VANC S I R N | | | | | | | | | |
| _____ | *Enterococcus faecalis* | AMP S I R N | DAPTO S I R N | LNZ S I R N | PENG S I R N | VANC S I R N | | | | | |
| _____ | *Enterococcus faecium* | AMP S I R N | DAPTO S I R N | LNZ S I R N | PENG S I R N | QUIDAL S I R N | VANC S I R N | | | | |
| _____ | *Staphylococcus aureus* | CEFOX S I R N | CLIND S I R N | DAPTO S I R N | ERYTH S I R N | GENT S I R N | LNZ S I R N | OX S I R N | QUIDAL S I R N | RIF S I R N | TMZ S I R N | VANC S I R N |

| Pathogen # | Gram-negative Organisms | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| _____ | *Acinetobacter* spp. (specify) _____ | AMK S I R N | AMPSUL S I R N | CEFEP S I R N | CEFTAZ S I R N | CIPRO S I R N | GENT S I R N | IMI S I R N | LEVO S I R N | MERO S I R N | PIPTAZ S I R N | TOBRA S I R N |
| _____ | *Escherichia coli* | AMK S I R N | CEFEP S I R N | CEFOT S I R N | CEFTAZ S I R N | CEFTRX S I R N | CIPRO S I R N | IMI S I R N | LEVO S I R N | MERO S I R N | | |
| _____ | *Enterobacter* spp. (specify) _____ | AMK S I R N | CEFEP S I R N | CEFOT S I R N | CEFTAZ S I R N | CEFTRX S I R N | CIPRO S I R N | IMI S I R N | LEVO S I R N | MERO S I R N | | |
| _____ | *Klebsiella oxytoca* | AMK S I R N | CEFEP S I R N | CEFOT S I R N | CEFTAZ S I R N | CEFTRX S I R N | CIPRO S I R N | IMI S I R N | LEVO S I R N | MERO S I R N | | |
| _____ | *Klebsiella pneumoniae* | AMK S I R N | CEFEP S I R N | CEFOT S I R N | CEFTAZ S I R N | CEFTRX S I R N | CIPRO S I R N | IMI S I R N | LEVO S I R N | MERO S I R N | | |
| _____ | *Serratia marcescens* | AMK S I R N | CEFEP S I R N | CEFOT S I R N | CEFTAZ S I R N | CEFTRX S I R N | CIPRO S I R N | IMI S I R N | LEVO S I R N | MERO S I R N | | |
| _____ | *Pseudomonas aeruginosa* | AMK S I R N | CEFEP S I R N | CEFTAZ S I R N | CIPRO S I R N | IMI S I R N | LEVO S I R N | MERO S I R N | PIP S I R N | | | |
| _____ | *Stenotrophomonas maltophilia* | TMZ S I R N | | | | | | | | | | |

| Pathogen # | Other Organisms | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| _____ | Organism 1 (specify) _____ | ____ Drug 1 S I R N | ____ Drug 2 S I R N | ____ Drug 3 S I R N | ____ Drug 4 S I R N | ____ Drug 5 S I R N | ____ Drug 6 S I R N | ____ Drug 7 S I R N | ____ Drug 8 S I R N | ____ Drug 9 S I R N |
| _____ | Organism 2 (specify) _____ | ____ Drug 1 S I R N | ____ Drug 2 S I R N | ____ Drug 3 S I R N | ____ Drug 4 S I R N | ____ Drug 5 S I R N | ____ Drug 6 S I R N | ____ Drug 7 S I R N | ____ Drug 8 S I R N | ____ Drug 9 S I R N |
| _____ | Organism 3 (specify) _____ | ____ Drug 1 S I R N | ____ Drug 2 S I R N | ____ Drug 3 S I R N | ____ Drug 4 S I R N | ____ Drug 5 S I R N | ____ Drug 6 S I R N | ____ Drug 7 S I R N | ____ Drug 8 S I R N | ____ Drug 9 S I R N |

**Drug Codes:**

AMK = amikacin
AMP = ampicillin
AMPSUL= ampicillin/sulbactam
CEFEP = cefepime
CEFOX- cefoxitin
CEFOT = cefotaxime
CEFTAZ = ceftazidime
CEFTRX = ceftriaxone
CIPRO = ciprofloxacin
CLIND = clindamycin
DAPTO=daptomycin
ERYTH=erythromycin
GENT=gentamicin
IMI = imipenem
LEVO = levofloxacin
LNZ = linezolid
MERO = meropenem
OX = oxacillin
PENG = penicillin G
PIP = piperacillin
PIPTAZ = piperacillin/tazobactam
QUIDAL= quinupristin/dalfopristin
RIF = rifampin
TMZ =trimethoprim/sulfamethoxazole
TOBRA = tobramycin
VANC = vancomycin

**Result Codes:**

S = Susceptible
I = Intermediate
R = Resistant
N = not tested

# Primary Bloodstream Infection (BSI)

OMB No. 0920-0666
Exp. Date: 03-31-2011

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CLABSI Worksheet for Event # _____ Date: _____

_____**Central line** in place was in place at the time of, or within 48 hours before, onset of the BSI event? If <YES>, continue for CLABSI event.

_____ Evidence that this BSI event was present or incubating at the time of **hospital admission?**

**If <YES> STOP here**, if <NO>, continue. **Document** Patient Chart Review notes here: Review H&P, Admit diagnosis, culture & test results, MD notes, etc:

_____

_____

_____

**CLABSI MUST meet ONE of the following 3 criteria: Check the Criteria** which applies:

**Criterion 1:**_____
**ANY AGE Patient** has a **recognized pathogen** cultured **from one or more blood cultures**
**AND** organism cultured from blood is not related to an infection at another site.

**Criterion 2:**_____
**ANY AGE Patient** has at least one of the following signs or symptoms: [circle symptom(s)]
fever (>38ºC), chills, or hypotension **AND** signs and symptoms and positive laboratory results **are not** related to an infection at another site **AND** common skin contaminant* is cultured from two or more blood cultures drawn on separate occasions

**Criteria 3:**_____
**Patient ≤ 1 year of age** has at least one of the following signs or symptoms: [circle symptom(s)]
fever (>38ºC core), hypothermia (<36ºC core), apnea, or bradycardia **AND** signs and symptoms and positive laboratory results **are not** related to an infection at another site **AND** common skin contaminant* is cultured from two or more blood cultures drawn on separate occasions

**Chart Review to Confirm Criteria 1, 2, or 3** (whichever used for CLABSI): **(REQUIRED)**

_____Chart review: Criteria 1: "The organism cultured from blood **is NOT** related to an infection at another site" Criteria 2 or 3: "signs & symptoms & positive laboratory results **are not** related to an infection at another site". **(Other sites of infection include Urinary Tract Infection, pneumonia, abscess, infected surgical site which MEET NHSN DEFINITION, etc.)** **Document** Patient Chart Review notes here:

_____

_____

_____

_____

**Confirm for Criteria 2 or 3:** (**REQUIRED** if used for CLABSI)

_____The same **common skin contaminant*** is *cultured from* ***two or more blood cultures drawn on separate occasions.*** **Document** Patient Chart Review notes here:

_____

_____

Use NHSN definitions to determine the "sameness" of the organism. (Patient Safety Component Protocols)

***Common skin contaminants:** i.e., diphtheroids [Corynebacterium spp.], Bacillus [not B. anthracis] spp., Propionibacterium spp., coagulase-negative staphylococci [including S. epidermidis], viridans group streptococci, Aerococcus spp., Micrococcus spp.

_____ Location of Attribution: **List the Location** of patient when BSI was identified.
_____ **Transfer rule** checked? Patient transferred from another in-patient location within the previous 48 hours? Notes: _____

_____

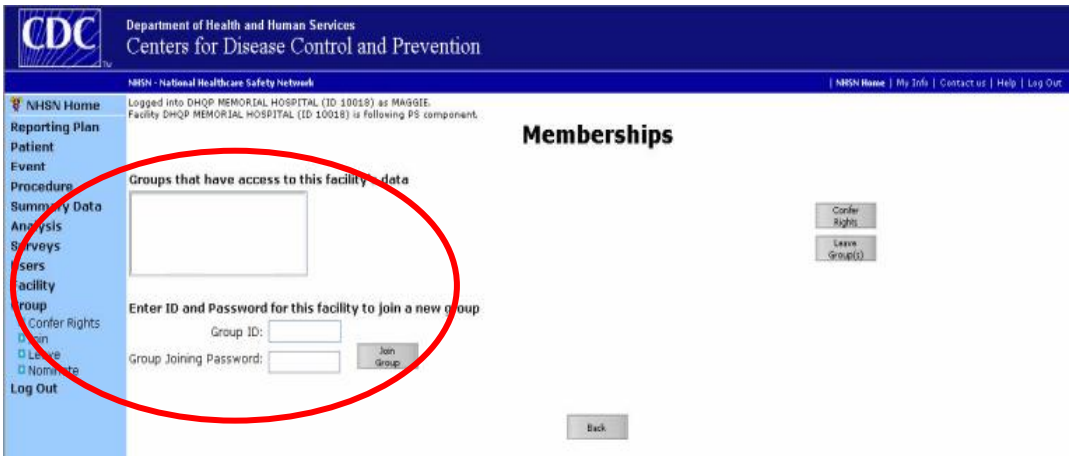
See NHSN Manual: Patient Safety Component Protocols & CDC/NHSN Surveillance Definition for HAI in Acute Care Settings for clarification of definitions and specific examples.

Appendix C

# How to Join the New Mexico Department of Health HAI Reporting Group

The facility administrator at your facility should complete the following steps in order to join the "New Mexico Department of Health" group:

1. On the navigation bar, click on "**Group**" and select **"Join"**. The **Memberships** screen will appear:




2. Enter the "**Group ID**" and "**Group Joining Password**" in their respective places:
   NOTE: You should have received the 'Group ID' and the 'Group Joining Password' from the NMDOH Group Administrator via e-mail prior to attempting to join the NMDOH Group.

   - The Group ID is **12934**
   - The Group Joining Password is **NewMexico1**

3. Click "**Join Group**".

You will be brought to the Confer Rights screen, with a message at the top indicating that you have successfully joined the New Mexico Department of Health Group. Please refer to the "Confer Rights" document to learn how to give the New Mexico Department of Health access to your data for HAI Public Reporting.

Appendix D

# How to Confer Rights to the New Mexico Department of Health Reporting Group

Please note that additional information about this process may be accessed from the NHSN Online Manual as well as a webcast and corresponding slidesets entitled, "Conferring Rights to Groups Session 1" found at the NHSN website under Conferring Rights to Groups.

The facility administrator at your facility should complete the following steps in order to confer rights to the "New Mexico Department of Health" group:

## Pre-Confer Rights Checklist

- Have I created my locations that will be monitored?

Information about locations may be obtained at NHSN Enrollment & Facility Start-up which links to a Webcast entitled "Enrollment in NHSN, Facility start up" as well as corresponding slidesets entitled "Facility Startup" which details how to add users, locations and surgeons in NHSN.

- Have I joined the NMDOH group?

If the answer to either question is "no," please go back and perform these steps so that you can confer rights to the New Mexico Department of Health.

1) On the navigation bar, click on **"Group"** and select **"Confer Rights"**. A **Memberships** screen will appear:


2) Highlight the New Mexico Department of Health and choose the gray "**Confer Rights**" Box. A pop-up will appear with the disclaimer:

> *The decision to confer rights to a group is a decision made by a facility administrator. Existence of a group organization in NHSN should not be*

*construed as a recommendation from CDC to join the group. CDC cannot be held accountable for how group users use data access granted to the group by a facility.*

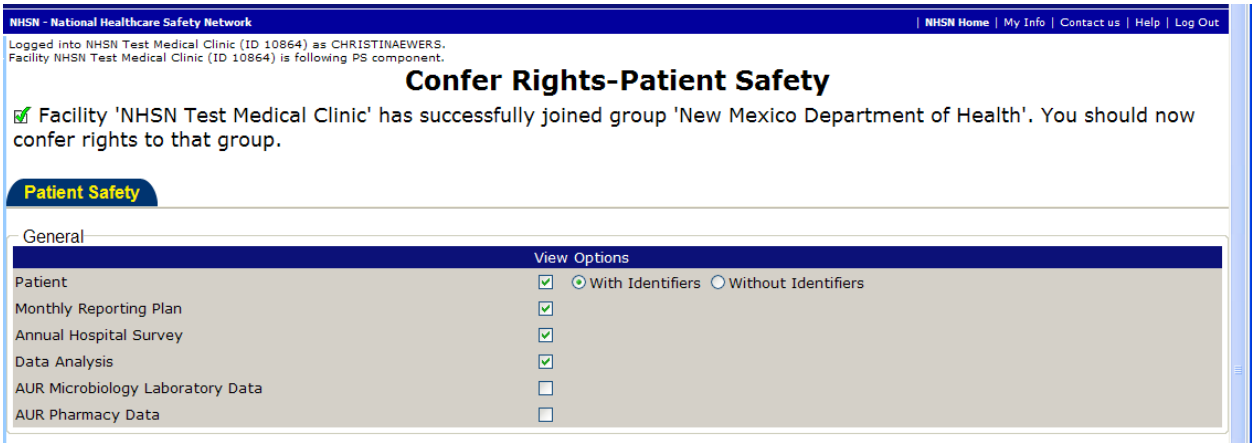
Click "**OK**."

3) Next you will see a form titled "**Confirm Rights –Patient Safety**". This is where you will assign rights in each sub-section of the Confer Rights screen.

a) Under the caption "**General**", please check the first four boxes, and make sure that "with identifiers" is checked next to the Patient option. (You do *not* need to check "AUR Microbiology Laboratory Data" or "AUR Pharmacy Data.")

- ✓ Patient: With Identifiers;
- ✓ Monthly Reporting Plan;
- ✓ Annual Hospital Survey; and
- ✓ Data Analysis.

Below is an example of the **General** rights conferred to the group:




b) For "**Infections and other Events**," you will be selecting criteria in order to enable the New Mexico Department of Health to view data related to central line-associated blood stream infections (CLABSIs) in Adult and Pediatric Intensive Care Units.

i) Select for the **Plan** category, "**In**."

ii) Select a **Start Date**. Populate the '**Month**' drop-down with a number ("7" for July, etc.), and populate '**Year**' with 2009, etc. End month/year is not necessary at this time. This will allow the State to have access to this data beginning from the start date.

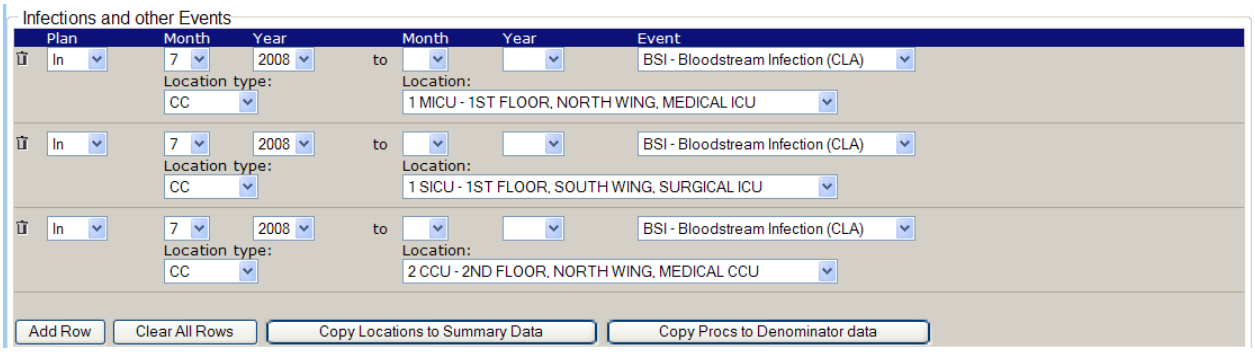
iii) **Event**: Choose the event to be a BSI – Bloodstream Infection (CLA).

iv) **Location Type**: Choose '**CC**' to indicate critical care units for the location in which CLABSIs will be monitored (e.g. adult intensive care units; the previously developed locations that were made during the facility setup).

NOTE:

- Selecting the type of location will limit the locations that appear in the **"Location"**. If you wish to select your location from your full list of locations, you may select **"All"** for the location type.
- Select a **"Location"**. If you wish to confer rights to all of the locations of the specified location type, select **"All"** in the location list.
- If you would like to confer rights to another event and/or location, click **"Add Row"** and repeat the steps above.

Below is an example of the **Infections and other Events** section completed for Hospital A which will be reporting to the New Mexico Department of Health. In this example, Hospital A created individual rows for locations rather than select 'All,' because they are also performing surveillance for their General Medicine Unit but did not wish to submit that data to the New Mexico Department of Health.




c) Click **"Copy Locations to Summary Data"**. This will copy the related date and location information to the Summary Data section of the Confer Rights screen.

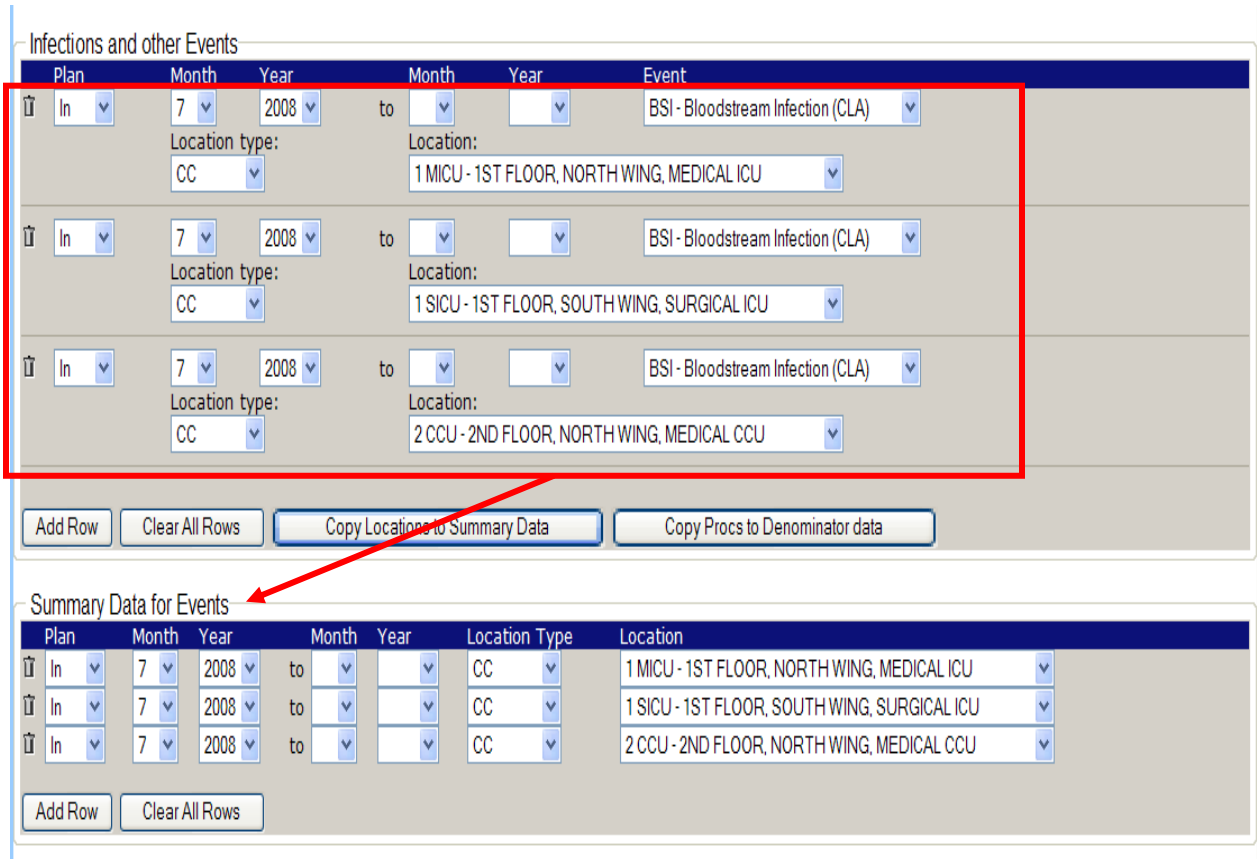
NOTE:

- If you need to remove a row, click on the trash can at the beginning of the row.

d) **Summary Data for Events**: copy the conferred rights by clicking on "Copy Locations to Summary Data".

The following message will appear:

Click **"OK"**. The plan, date and location rights will be copied in the **Summary Data** section of the Confer Rights screen.




e) **Denominator Data for Events**: This is not applicable for CLABSIs.

4) Click Save at the bottom of the page.

**Congratulations!**

**You have now successfully permitted the New Mexico Department of Health to view the data collected by your facility for HAI public reporting of CLABSIs.**

You will follow similar steps to confer right to the NMDOH for HCW influenza vaccination rates found in the Healthcare Personnel Safety Component of NHSN. Since this module is unavailable at this time more specific details will be provided when they are available.