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Illinois Health Care-associated Infection (HAI) Plan December 23, 2009

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1. Develop or Enhance HAI Program Infrastructure

Successful HAI prevention requires close integration and collaboration with state and local infection prevention activities and systems. Consistency and compatibility of HAI data collected across facilities will allow for greater success in reaching state and national goals. Please select areas for development or enhancement of state HAI surveillance, prevention and control efforts.

Table 1: State infrastructure planning for HAI surveillance, prevention and control.

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level I	X	<input type="checkbox"/>	<p>1. Establish statewide HAI prevention leadership through the formation of multidisciplinary group or state HAI advisory council</p> <p>i. Collaborate with local and regional partners (e.g., state hospital associations, professional societies for infection control and health care epidemiology, academic organizations, laboratorians and networks of acute care hospitals and long-term care facilities (LTCFs)).</p> <p>Under the direction of the Illinois Department of Public Health, (the Department) Division of Patient Safety and Quality, the Infection Committee of the Hospital Report Card Act Advisory Council is now constituted as the Illinois HAI Prevention Advisory Council. The Illinois Hospital Association (IHA), the Association for Professionals in Infection Control and Epidemiology (APIC), the Department’s Office of Health Care Regulation, the Metropolitan Chicago Healthcare Council (MCHC), the IFMC-IL (formerly the Illinois Foundation for Quality Health Care), the Chicago Department of Public Health (CDPH), the Cook County Department of Public Health (CCDPH), the University of Illinois at Chicago School of Public Health, consumers, health care providers, organized labor, the Illinois Department of Public Health’s Division of</p>	<p>i. Implemented 9/2009</p> <p>12/2009</p>

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			<p>Laboratories, a long-term care facility and a health insurance provider are represented. All taskforces and/or workgroups referred to in this document will provide reports of their activities to the Illinois HAI Prevention Advisory Council.</p> <p>IDPH will continue to meet regularly with the Illinois HAI Prevention Advisory Council, to provide updates on program activities and to receive feedback and advice.</p>	
	X	<input type="checkbox"/>	<p>ii. Identify specific HAI prevention targets consistent with Department of Health and Human Services (HHS) priorities.</p> <p><i>Clostridium difficile</i> In 2007, Illinois Public Act 095-0282 called for aggregate public reporting of <i>C. difficile</i> in hospitals. Starting January 1, 2008, hospitals were required to report the present on admission code with each diagnostic code upon discharge. A <i>Clostridium difficile</i> collaborative is being established to prevent health care associated <i>C. difficile</i> infections among patients in Illinois hospitals. Hospitals participating in the <i>C. difficile</i> collaborative will be required to report through National Healthcare Safety Network (NHSN); therefore, 21 hospitals will be reporting rates by patient days. Hospitals not involved in the collaborative will have rates reported using hospital discharge data. Statewide aggregate data are available on the Department's Web site, in an annual report and on the Hospital Report Card.</p> <p>The Illinois Department of Public Health will have all hospitals report <i>C. difficile</i> infections through the surveillance tool NHSN using the Lab Identification event after all hospitals have implemented surgical site infection (SSI) reporting.</p> <p>Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)</p>	<p>ii. 3/2010 (<i>C. difficile</i> Collaborative)</p> <p>2011 (All hospitals reporting <i>C. difficile</i> through NHSN).</p>

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			<p>Since October 1, 2007, all hospitals in Illinois have been required to identify MRSA colonized patients in all intensive care units, and other at-risk patients identified by the hospital, through active surveillance testing. The information is coded at discharge as “present on admission” or “occurring during hospital stay.” the Department’s Division of Patient Safety and Quality has ready access to these data and can examine trends and identify problems. Statewide aggregate data are available on the Department’s Web site, in an annual report and on the Hospital Report Card.</p> <p>The Illinois Department of Public Health will have all hospitals report MRSA infections through the surveillance tool NHSN using the Lab Identification event after all hospitals have implemented SSI reporting.</p> <p>Central Line-associated Bloodstream Infections (CLABSI) Hospitals with medical intensive care units (ICUs), surgical ICUs or combined (149/210 hospitals) are required to report CLABSIs to the Illinois Department of Public Health through NHSN. The enrollment process for reporting CLABSIs began in October 2008.</p> <p>Mandated state reporting of CLABSIs in adult ICUs using NHSN began on January 1, 2009. CLABSI reporting in pediatric and neonatal ICUs began on October 1, 2009.</p> <p>In addition, the IHA is a participant in John Hopkins University’s nationally recognized multistate “Stop BSI” initiative, in which fifty-two Illinois hospitals are enrolled.</p> <p>Surgical Site Infections (SSIs) Collecting data for statewide SSI reporting, using the NHSN reporting system for Total Knee Arthroplasty (TKA) and Coronary Artery Bypass Graft (CABG) procedures, is scheduled</p>	<p>2011 (All hospitals reporting MRSA through NHSN).</p> <p>1/1/ 2009</p> <p>4/2010</p>

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			<p>to begin on April 1, 2010. Furthermore, Public Act 93-563, the Hospital Report Card Act, mandates reporting Class 1 SSIs. APIC chapters and other stakeholders will collaborate with the Department's Division of Patient Safety and Quality to define the minimum standard for SSI surveillance.</p> <p>Surveillance for Ventilator-associated Pneumonia (VAP) and Catheter-associated Urinary Tract Infections (CAUTIs) will be implemented in the future, pending funding.</p> <p>The HAI prevention targets will be re-evaluated on a regular basis and as necessary to ensure they are consistent with national standards.</p>	<p>2013 - VAP</p> <p>2014 - CAUTI</p>
			<p><i>Other activities or descriptions (not required):</i></p> <p>The Department will work with key stakeholders (i.e., local health departments, hospitals, infection preventionists, infectious disease physicians, microbiologists, long-term care facilities) to identify specific multi-drug resistant gram negative organisms of epidemiologic importance (i.e., extended spectrum beta-lactamase (ESBL)-producing organisms, Carbapenem-resistant <i>Enterobacteriaceae</i> (CRE), <i>Elizabethkingia meningoseptica</i>, <i>Acintebacter baumannii</i>, <i>Burkholderia cepacia</i>, <i>Stenotrophomonas maltophilia</i>) to consider making all or some of these organisms reportable in the state of Illinois.</p>	<p>1/2010</p>
	<p>X</p>	<p><input type="checkbox"/></p>	<p>2. Establish an HAI surveillance prevention and control program</p> <p>Designate a state HAI prevention coordinator</p> <p>A state HAI prevention coordinator has been hired.</p>	<p>i. 2/2010</p>
	<p>X</p>	<p><input type="checkbox"/>i.</p>	<p>Develop dedicated, trained HAI staff with at least one full time equivalent (or contracted equivalent) to oversee the four major HAI activity areas (Integration, Collaboration, and Capacity Building; Reporting, Detection, Response and Surveillance;</p>	<p>ii. 11/2009</p>

ii.

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			<p>Prevention; Evaluation, Oversight and Communication).</p> <p>1.55 FTE includes the following: 0.2 FTE CDC Public Health Prevention Specialist 0.1 FTE Division chief, Patient Safety and Quality 0.25 FTE Epidemiologist 1.0 FTE HAI coordinator</p> <p>Advocate for one full time Department permanent position for dedicated HAI coordinator for state of Illinois.</p>	1/2011
			<i>Other activities or descriptions (not required):</i>	
	X	<input type="checkbox"/>	<p>3. Integrate laboratory activities with HAI surveillance, prevention and control efforts.</p> <p>i. Improve laboratory capacity to confirm emerging resistance in HAI pathogens and perform typing where appropriate (e.g., outbreak investigation support, HL7 messaging of laboratory results).</p> <p>The Department's Division of Laboratories has implemented a Laboratory Information Management System (LIMS). This database provides HL7 messaging.</p> <p>The Department's laboratories provide PFGE (pulsed field gel electrophoresis) testing for bacterial genetic strain analysis as part of the CDC PulseNet program, which links outbreaks of bacteria across the country.</p> <p>The Department's laboratories provide biochemical testing of pathogen resistance to antibiotics including vancomycin-resistant <i>Staphylococcus aureus</i> (VRSA), vancomycin-</p>	i. This is a desirable activity; until funding opportunities have been identified; this activity will not be fully implemented

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			intermediate <i>Staphylococcus aureus</i> (VISA), and multidrug-resistant tuberculosis (MDR TB). Additional capabilities would require additional staffing and supplies for biochemical determination of antibiotic resistance.	
			<i>Other activities or descriptions (not required):</i>	
Level II	X	<input type="checkbox"/>	<p>4. Improve coordination among government agencies or organizations that share responsibility for assuring or overseeing HAI surveillance, prevention and control (e.g., state survey agencies, communicable disease control, state licensing boards).</p> <p>The Communicable Disease Control Section under the Division of Infectious Diseases receives information on reportable HAIs. Section staff work closely with the Department's Division of Patient Safety and Quality. The Division of Infectious Diseases communicates with the Office of Health Care Regulation and the State Licensing Board as indicated. A more formalized process for communicating HAI surveillance information among the sections or programs is needed.</p>	11/2007
			<i>Other activities or descriptions (not required):</i>	
	X	<input type="checkbox"/>	5. Facilitate use of standards-based formats (e.g., clinical document architecture, electronic messages) by health care facilities for purposes of electronic reporting of HAI data. Providing technical assistance or other incentives for implementations of standards-	2004 - present

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			<p>based reporting can help develop capacity for HAI surveillance and other types of public health surveillance, such as for conditions deemed reportable to state and local health agencies using electronic laboratory reporting (ELR). Facilitating use of standards-based solutions for external reporting also can strengthen relationships between health care facilities and regional nodes of health care information, such as regional health information organizations (RHIOs) and health information exchanges (HIEs). These relationships, in turn, can yield broader benefits for public health by consolidating electronic reporting through regional nodes.</p> <p>The Illinois National Electronic Disease Surveillance System (I-NEDSS) has been utilized by state and local health departments since 2004 for infectious diseases reporting and surveillance. In 2005, the system became available for health care providers, mainly infection preventionists, to report cases to public health. Electronic laboratory reporting (ELR) has been a component of the system since 2005. The Illinois ELR project works to implement electronic data interchange between hospital and reference laboratories and I-NEDSS. Currently I-NEDSS receives ELR data from LabCorp, Quest, Mayo Clinic, the three state public health laboratories and seven hospital laboratories.</p> <p>A development team at John H. Stroger Jr. Hospital of Cook County (see Attachment 1: Vision for Electronic Public Health Surveillance), in collaboration with the Chicago Department of Public Health (CDPH), has been developing ELR infrastructure for the city of Chicago. The goal is to connect Chicago hospitals to a public health information exchange infrastructure to enable capacity for ELR of notifiable diseases.</p> <p>The Department, in collaboration with CDPH and John H. Stroger Jr. Hospital of Cook County will leverage both the existing I-NEDSS ELR and the Chicago ELR project infrastructures to implement and sustain messaging of relevant data into NHSN. The</p>	

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			<p>second phase of the ELR project will be to develop a new NHSN reporting module that can interact with the data contained within the ELR server.</p> <p>In addition, the NHSN Multi-drug resistant organism (MDRO) and <i>Clostridium difficile</i>-associated disease (CDAD) modules will be utilized by hospitals participating in collaboratives to report MRSA and <i>Clostridium difficile</i> within the next year. The goal is to expand and sustain ELR infrastructure in Illinois to a minimum of 10 percent of hospitals by 12/31/2011.</p>	12/31/2011
			<p><i>Other activities or descriptions (not required):</i> See Attachment 1: Vision for Electronic Public Health Surveillance.</p>	
<p>Please also describe any additional activities, not listed above, that your state plans to undertake. Please include target dates for any new activities.</p>				

2. Surveillance, Detection, Reporting, and Response

Timely and accurate monitoring remains necessary to gauge progress towards HAI elimination. Public health surveillance has been defined as the ongoing, systematic collection, analysis, and interpretation of data essential to the planning, implementation, and evaluation of public health practice, and timely dissemination to those responsible for prevention and control.¹ Increased participation in systems such as the National Healthcare Safety Network (NHSN) has been demonstrated to promote HAI reduction. This, combined with improvements to simplify and enhance data collection, and improve dissemination of results to health care providers and the public are essential steps toward increasing HAI prevention capacity.

The HHS action plan identifies targets and metrics for five categories of HAIs and identified ventilator-associated pneumonia as an HAI under development for metrics and targets :

- Central Line-associated Blood Stream Infections (CLABSI)
- *Clostridium difficile* Infections (CDI)
- Catheter-associated Urinary Tract Infections (CAUTI)
- Methicillin-resistant *Staphylococcus aureus* (MRSA) Infections
- Surgical Site Infections (SSI)
- Ventilator-associated Pneumonia (VAP)

Work is ongoing to identify optimal metrics and targets for VAP infection. However, detection and measurement with existing tools and methods can be combined with recognized prevention practices in states where an opportunity exists to pursue prevention activities on that topic.

State capacity for investigating and responding to outbreaks and emerging infections among patients and health care providers is central to HAI prevention. Investigation of outbreaks helps identify preventable causes of infections including issues with the improper use or handling of medical devices; contamination of medical products; and unsafe clinical practices. Please choose items to include in your plan at the planning levels desired.

¹ Thacker SB, Berkelman RL. Public health surveillance in the United States. *Epidemiol Rev* 1988;10:164-90.

Table 2: State planning for surveillance, detection, reporting, and response for HAIs

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level I	X	<input type="checkbox"/>	<p>1. Improve HAI outbreak detection and investigation</p> <p>i. Work with partners including the Council of State and Territorial Epidemiologists (CSTE), CDC, state legislatures, and providers across the healthcare continuum to improve outbreak reporting to state health departments.</p> <p>Illinois Administrative Code Title 77: Public Health, Chapter I Dept. of Public Health, subchapter k: Communicable Disease Control and Immunizations, part 690 Control of Communicable Diseases Code addresses reporting of communicable diseases that would alert the Department of an outbreak.</p>	i. 9/2009
	<input type="checkbox"/>	X	<p>ii. Establish protocols and provide training for health department staff to investigate outbreaks, clusters or unusual cases of HAIs.</p> <p>The Department provides training for health department staff. However, the Department has not established written protocols for investigating HAIs.</p>	ii. 12/31/2010
	X	<input type="checkbox"/>	<p>iii. Develop mechanisms to protect facility/provider/patient identity when investigating incidents and potential outbreaks during the initial evaluation phase where possible to promote reporting of outbreaks</p> <p>Mechanisms are in place to protect facility/provider/patient identity when investigating incidents and potential outbreaks.</p>	iii. 4/2003
	<input type="checkbox"/>	X	<p>iv. Improve overall use of surveillance data to identify and prevent HAI outbreaks or transmission in HC settings (e.g., hepatitis B, hepatitis C, multi-drug resistant organisms (MDRO), and other reportable HAIs)</p> <p>Illinois has mandated that hospitals report designated</p>	iv. 1/2011

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level II	X	<input type="checkbox"/>	<p>3. Improve communication of HAI outbreaks and infection control breaches</p> <p>i. Develop standard reporting criteria including, number, size and type of HAI outbreak for health departments and CDC.</p> <p>77 Ill. Adm. Code 690.295, a section of the Control of Communicable Diseases Code, mandates that any unusual case or cluster of cases that may indicate a public health hazard must be reported; this includes hepatitis B and hepatitis C cases.</p> <p>The Department will convene a workgroup, which will include, but not be limited to members from the Division of Infectious Diseases Communicable Disease Control Section, local APIC chapters and the Department's Division of Patient Safety and Quality, to establish reporting requirements and explore methods to achieve notification of HAI outbreaks to local and state health departments and the CDC. The workgroup will explore developing a separate module for reporting HAI clusters within the current reporting systems (e.g., INEDSS).</p>	<p>i. 2008</p> <p>2/2011</p>
	<input type="checkbox"/>	X	<p>ii. Establish mechanisms or protocols for exchanging information about outbreaks or breaches among state and local governmental partners (e.g., state survey agencies, Communicable Disease Control, state licensing boards).</p> <p>The Department's Division of Infectious Diseases will take the lead in developing protocols for exchanging information about outbreaks and breaches.</p>	<p>ii. 2/2011</p>
			<p><i>Other activities or descriptions (not required):</i></p>	

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	<input type="checkbox"/>	<p>4. Identify at least two priority prevention targets for surveillance in support of the HHS HAI action plan</p> <p>i. Central Line-associated Bloodstream Infections (CLABSI) Illinois has mandated that hospitals report CLABSIs to the Department through NHSN to improve surveillance activities. Of 210 Illinois hospitals, 149 hospitals have adult ICUs and are enrolled in the NHSN system. CLABSI reporting in adult ICUs began in January 2009, and in pediatric and neonatal ICUs in October 2009.</p>	i. 1/2009
	X	<input type="checkbox"/>	<p>ii. Clostridium difficile Infections (CDI) The Multi-drug Resistant Organism Screening and Reporting bill (2007) mandates public reporting of <i>C. difficile</i> in hospitals. Surveillance of statewide <i>C. difficile</i> rates using hospital discharge data has occurred since February 2008. Hospitals participating in the <i>C. difficile</i> collaborative will be required to use the NHSN CDAD module for reporting. The Illinois Department of Public Health will have all hospitals report <i>C. difficile</i> infections through NHSN using the Lab Identification event after all hospitals have implemented SSI reporting.</p>	ii. 2/2008 3/2010 (Hospitals in collaborative will begin reporting through NHSN)
	<input type="checkbox"/>	X	<p>iii. Catheter-associated Urinary Tract Infections (CAUTIs) Currently surveillance for CAUTIs is not specifically planned; however, it is a target for the future based on funding.</p>	iii. 2014
	X	<input type="checkbox"/>	<p>iv. Methicillin-resistant Staphylococcus aureus (MRSA) Infections Since October 1, 2007, all hospitals in Illinois must identify MRSA colonized patients in all intensive care units, and other at-risk patients identified by the hospital, through active surveillance testing. Hospitals are required to code all discharge diagnoses as “present on</p>	iv. 10/2007

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			admission” or “occurred during the stay.” Statewide aggregate data based on discharge diagnosis codes are available on the Department’s Web site, in an annual report and on the Hospital Report Card. The Illinois Department of Public Health will have all hospitals report MRSA infections through NHSN using the Lab Identification event after all hospitals have implemented SSI reporting.	
	<input type="checkbox"/>	X	v. Surgical Site Infections (SSI) The Illinois Hospital Report Card Act has mandated all hospitals to submit data to the Department for public reporting. SCIP data is available on the Hospital Report Card Web site as of 11/2009 and SSI data will be available in 1/2011.	v. 4/2010
	<input type="checkbox"/>	X	vi. Ventilator-associated Pneumonia (VAP) Mandatory VAP reporting is currently not planned, however it will be initiated in the near future. The HAI prevention targets will be re-evaluated on a regular basis and as necessary to ensure they are consistent with national standards.	vi. 2013
			<i>Other activities or descriptions (not required):</i> The Department will work with key stakeholders (i.e., local health departments, hospitals, infection preventionists, infectious disease physicians, microbiologists, long-term care facilities) to identify specific multi-drug resistant gram negative organisms of epidemiologic importance to consider making all or some of these organisms reportable in the state of Illinois.	2010
	X	<input type="checkbox"/>	5. Adopt national standards for data and technology to track HAIs (e.g., NHSN). i. Develop metrics to measure progress toward national goals	i. 10/2007

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			<p>(align with targeted state goals). (See Appendix 1). Measurement of CLABSIs in all hospitals with ICUs will be done using the HHS prevention target of 75 percent reduction in standardized infection ratio (SIR) as a benchmark.</p> <p>The Department’s Division of Patient Safety and Quality is using hospital discharge data to calculate rates of <i>C. difficile</i> and MRSA infections. Hospitals involved in the <i>C. difficile</i> collaborative will be required to use the NHSN MDRO/CDAD modules to conduct surveillance. The HHS prevention target of 30 percent reduction in case rate per patient days and 30 percent reduction in hospital discharge data cases will be reviewed by the advisory council for use as the metric. The Division will compare <i>C. difficile</i> rates from hospital discharge data to the NHSN-collected <i>C. difficile</i> data.</p> <p>The HHS prevention target to reduce the admission and readmission SSI SIR by at least 25 percent from baseline or to zero, and at least 95 percent adherence to process measures to prevent surgical site infections will be reviewed by the advisory council for use as the metric (see 5.ii. below). The Department’s Division of Patient Safety and Quality is also collecting SCIP/National Quality Forum (NQF) measures for public reporting; the data will be measured using the HHS prevention target rate of 95 percent adherence.</p> <p>The HAI prevention targets and metrics will be re-evaluated on a regular basis and as necessary to ensure they are consistent with national standards.</p> <p>The Department will provide education to hospitals via webinars about metrics to measure progress towards</p>	<p>3/2010 for collaborative hospitals</p>

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			national goals.	
	X	<input type="checkbox"/>	<p>ii. Establish baseline measurements for prevention targets</p> <p>Baseline intensive care unit specific CLABSI SIRs for the first 12 months of NHSN surveillance will be available by April 2010. After this date, CLABSI SIRs will be updated regularly.</p> <p><i>Clostridium difficile</i> rates have been calculated through 2008 using hospital discharge data. <i>C. difficile</i> collaborative reporting through NHSN will begin in May 2010.</p> <p>MRSA baseline rates have been calculated using hospital discharge data and are available on the Illinois Department of Public Health Web site in aggregate form.</p> <p>Statewide surgical site infection reporting, using NHSN, and collection of baseline data is scheduled to begin on April 1, 2010, with public reporting of data for CABG and TKAs starting in 2011. Baseline infection rates for procedures and risk groups computed from the first year of data collection will then be compared to NHSN data and a prevention target goal assigned per HHS guidelines.</p>	<p>ii. 2008-2009</p> <p>5/2010</p> <p>11/2009</p> <p>2011</p>
			<i>Other activities or descriptions (not required):</i>	
	<input type="checkbox"/>	X	<p>6. Develop state surveillance training competencies</p> <p>i. Conduct local training for appropriate use of surveillance systems (e.g., NHSN) including facility and group enrollment,</p>	

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			<p>data collection, management, and analysis.</p> <p>The Department's Division of Patient Safety and Quality will conduct webinar trainings in collaboration with local APIC chapters. Local APIC chapters will schedule local hands-on trainings, follow-up, and monitoring of reporting for hospitals in their regions. APIC chapters will act as local support groups for those having difficulty understanding reporting or for those who simply feel they do not have the time to learn on their own. The local APIC chapters, in collaboration with IDPH, will provide support and guidance. Local APIC chapters began assisting hospitals with statewide NHSN pediatric ICU CLABSI reporting in September 2009 and will continue this role for SSI reporting scheduled to begin on April 1, 2010, and thereafter will support hospitals in all HAI activities.</p>	<p>CLABSI training 10/2008</p> <p>NHSN CDAD module training for collaborative hospitals 2/2010</p> <p>SSI training 2/2010</p>
			<p><i>Other activities or descriptions (not required):</i></p>	
	X	<input type="checkbox"/>	<p>7. Develop tailored reports of data analyses for state or region prepared by state personnel.</p> <p>The Hospital Report Card Act (Public Act 93-563) requires the Illinois Department of Public Health Division of Patient Safety and Quality to report data on CLABSIs, MRSA, <i>C. difficile</i>, and SSIs through the Illinois Hospital Report Card (http://www.healthcarereportcard.illinois.gov/). The Department's Division of Patient Safety and Quality provides an annual report to the state legislature that summarizes quarterly data by state region.</p>	<p>1/2004 – 11/2009</p>

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			<i>Other activities or descriptions (not required):</i>	
Level III	X X <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> 8. <input type="checkbox"/> X Xi. X X X	<p>Validate data entered into HAI surveillance (e.g., through health care records review, parallel database comparison) to measure accuracy and reliability of HAI data collection.</p> <p>Develop a validation plan</p> <p>ii. Pilot test validation methods in a sample of health care facilities</p> <p>iii. Modify validation plan and methods in accordance with findings from pilot project</p> <p>iv. Implement validation plan and methods in all health care facilities participating in HAI surveillance</p> <p>v. Analyze and report validation findings</p> <p>vi. Use validation findings to provide operational guidance for health care facilities that targets any data shortcomings detected</p> <p>CLABSI Cases in Adult and Pediatric ICUs</p> <p>The pilot test validation includes the HAI coordinator monitoring monthly CLABSI rates and identifying those facilities with annual rates in the 95th percentile or greater and those with rates consistently in the fifth percentile or lower. The microbiology laboratories at the identified facilities will be asked to generate a list of bacteremias due to specific organisms (e.g., MRSA) for the previous 12-month period. A blinded medical record review will be completed. The data will be analyzed to identify inconsistencies between the audit abstractors and the information reported to NHSN by the hospitals. Agreement between the audit abstractors and the hospital will be calculated. If warranted, measures will be taken to correct errors. Infection reduction strategies will be</p>	i. 9/2009 ii. 3/2010 iii. 7/2010 iv. 9/2010 v. 1/2011 vi. 6/2011

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			<p>discussed with hospitals experiencing validated high rates of infection.</p> <p>SSIs A 10 percent sample of cases from hospitals with the highest and lowest infection rates for a six month surveillance period will be selected for validation. Data concerning demographics, surgical procedure, infection site, medication and follow-up will be collected. A review of numerator and denominator data collection protocols will be performed. A 30-day period within the six month period of surveillance will be randomly selected and the surveillance protocol replicated for that time period. The data will be analyzed to identify inconsistencies between the audit abstractors and the information reported in NHSN by the hospitals. Agreement between the audit abstractors and the hospital will be calculated. If warranted, measures will be taken to correct errors. Infection reduction strategies will be discussed with hospitals experiencing validated high rates of infection.</p> <p>Case Studies Hospital infection preventionists' (IPs) (and other healthcare workers involved in data evaluation, medical records, etc. as deemed necessary by the hospital), knowledge of NHSN standard definitions and interpretive skills will be tested at regular intervals using case studies. This is an affordable and sustainable method for validation when the data collection process involves hundreds of individuals working in different locations throughout the state. Twice a year, IPs (others as necessary) who use NHSN to input CLABSI and SSI data will be required to complete case study evaluations using an online survey tool such as Survey Monkey.</p>	

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			<p>Results will be tallied and compiled. Those IPs with low scores will be notified by the Department and offered retraining.</p> <p>Pre/Post-Testing As NHSN does not have a certification process to assess NHSN users' competency levels prior to entering data, the Department plans to institute pre- and post-training evaluations. The self-administered assessment tool will allow the NHSN user to compare his/her understanding of NHSN definitions and data collection protocols prior to and after a Department/APIC training session. This tool will not only assess the NHSN user's competency, it will also serve to evaluate the clarity of the Department/APIC training sessions. The method is financially feasible and sustainable. Pre/post-testing will take place before and after local Department/APIC training sessions, which will occur during the month prior to the official start of mandated reporting using a specified NHSN module. An online survey tool such as Survey Monkey will be used to gather information. Incorrect responses will prompt the explanation for the correct response.</p> <p>CDAD Validation The <i>C. difficile</i> prevention collaborative will use laboratory-identified event reporting to monitor <i>C. difficile</i> infection rates. The electronic laboratory reporting (ELR) system proposed by the INEDDS/CHESS ELR implementation team will be used. The first validation strategy is to compare <i>C. difficile</i> rates generated using ELR to those calculated using hospital discharge data. The Department will generate hospital-specific rates for 2008 and will continue to provide data for this purpose. A second</p>	

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			<p>validation strategy will be to collect patient care location for a given period of time. The case ascertainment using this surveillance technique could be compared to that generated by the ELR method. Discrepancies will be analyzed and discussed.</p> <p>The validation results will be published in an annual report beginning in 2011.</p>	
			<i>Other activities or descriptions (not required):</i>	
	<input type="checkbox"/>	X	<p>9. Develop preparedness plans for improved response to HAIs.</p> <p>i. Define processes and tiered response criteria to handle increased reports of serious infection control breaches (e.g., syringe reuse), suspect cases/clusters, and outbreaks.</p> <p>A multidisciplinary workgroup will explore processes and tiered response criteria to handle increased reports of serious infection control breaches, suspect cases/clusters, and outbreaks, and decide on actions that will be taken when serious infection control breaches have been identified. The workgroup will provide reports of its activities to the Illinois HAI Prevention Advisory Council.</p>	i. 4/2010
			<i>Other activities or descriptions (not required):</i>	
	<input type="checkbox"/>	X	<p>10. Collaborate with professional licensing organizations to identify and investigate complaints related to provider infection control practice in non-hospital settings, and to set standards for continuing education and training</p> <p>The Illinois Department of Financial and Professional</p>	12/2011

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			<p>Regulation is located outside of the Department of Public Health. The Department’s Division of Patient Safety and Quality does not have a relationship with the Illinois Department of Financial and Professional Regulation, however, opportunities for collaboration will be explored in the future.</p>	
			<p><i>Other activities or descriptions (not required):</i></p>	
	<input type="checkbox"/>	X	<p>11. Adopt integration and interoperability standards for HAI information systems and data sources.</p> <p>i. Improve overall use of surveillance data to identify and prevent HAI outbreaks or transmission in HC settings (e.g., hepatitis B, hepatitis C, multi-drug resistant organisms (MDRO), and other reportable HAIs) across the spectrum of inpatient and outpatient healthcare settings.</p> <p>A priority of local APIC chapters, as well as the Department, is to move toward introducing legislation requiring hospitals to use a qualified electronic surveillance system within the next five years. This would facilitate electronic reporting of patient-specific data of health care-associated infections (CLABSIs, <i>Clostridium difficile</i> infections, CAUTIs, MRSA infections, SSIs, and VAPs) to the Department using nationally recognized standards based on Centers for Disease Control and Prevention (CDC) definitions within the next five years pending introduction of new legislation and funding. In order to achieve this, a multidisciplinary workgroup will be formed to determine either minimum IP staffing levels for hospitals or requirements for qualified electronic surveillance systems (data mining systems) or both.</p>	i. 2011-2012

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	<input type="checkbox"/>	ii. Promote definitional alignment and data element standardization needed to link HAI data across the nation. In August 2008, the Illinois Department of Public Health Division of Patient Safety and Quality, with the support of the Infection Committee of the Hospital Report Card Advisory Council, chose NHSN as the method for hospitals in Illinois to begin reporting infections. The Division plans to expand hospital NHSN reporting in April 2010 to include surgical site infections for two surgical procedures. All hospitals joining the <i>C. difficile</i> collaborative will be required to use the NHSN MDRO/CDAD module.	ii. 2004-present
			<i>Other activities or descriptions (not required):</i>	
			12. Enhance electronic reporting and information technology for health care facilities to reduce reporting burden and increase timeliness, efficiency, comprehensiveness, and reliability of the data.	
	X	<input type="checkbox"/> i.	Report HAI data to the public The Hospital Report Card Act (Public Act 93-563) requires the Illinois Department of Public Health, Division of Patient Safety and Quality, to report data on CLABSIs, MRSA, <i>C. difficile</i> , and SSIs through the Illinois Hospital Report Card (http://www.healthcarereportcard.illinois.gov/).	i. 11/2009
			<i>Other activities or descriptions (not required):</i>	
	<input type="checkbox"/>	X	13. Make available risk-adjusted HAI data that enables state agencies	

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			<p>to make comparisons between hospitals.</p> <p>In October 2008, hospitals with medical intensive care units (ICUs), surgical ICUs or combined (149/210 hospitals), began reporting CLABSIs through NHSN. Mandated state reporting of CLABSIs in adult ICUs using NHSN began on January 1, 2009. CLABSIs reporting in pediatric and neonatal intensive care units began on October 1, 2009. The data are stratified by type of location and compared to similar hospitals; baseline CLABSI standardized infection ratios (SIRs) for various ICU types for the first 12 months of NHSN surveillance will be available by April 2010. HAI rates and SIR comparison metrics will be used for all HAI prevention targets.</p> <p>SSIs reporting through NHSN allows for risk stratification.</p> <p>The Department will have all hospitals report MRSA and <i>C. difficile</i> infections through NHSN. When this has been accomplished, hospital-specific infection rates will be published and inter-hospital comparisons will be possible.</p>	<p>11/ 2009</p> <p>SSI data available 1/2011</p> <p>2011</p>
			<p><i>Other activities or descriptions (not required):</i></p>	
	<input type="checkbox"/>	<p>X</p>	<p>14. Enhance surveillance and detection of HAIs in nonhospital settings.</p> <p>The HAI Prevention Advisory Council will explore extending the HAI prevention plan to ambulatory facilities as a component of the five year plan.</p> <p>The Department will explore developing an infrastructure to increase communication between hospitals and</p>	<p>12/31/2014</p>

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			<p>LTCF/LTACHs. To accomplish this, the Department will coordinate meetings with major stakeholders (i.e, hospitals, leaders of LTCF and LTACHs, infectious disease physicians, infection preventionists, MCHC, IHA, local health departments, and APIC chapters) to form a long term care workgroup. The workgroup will assist the Department in developing a comprehensive needs assessment and profile to be implemented throughout the state. In addition, the workgroup will partner with IHA to assist in establishing educational standards for healthcare workers in hospitals, LTCF and LTACHS. They will also develop standardized educational tools and implement the educational sessions for LTCF and LTACHS. The long term care workgroup will report on all activities to the Illinois HAI Prevention Advisory Council.</p>	<p>Within 2010</p> <p>12/2009</p>
			<p><i>Other activities or descriptions (not required):</i></p>	
<p>Please also describe any additional activities, not listed above, that your state plans to undertake. Please include target dates for any new activities.</p>				

3. Prevention

State implementation of HHS Healthcare Infection Control Practices Advisory Committee (HICPAC) recommendations is a critical step towards the elimination of HAIs. CDC with HICPAC has developed evidence-based HAI prevention guidelines cited in the HHS Action Plan for implementation. These guidelines are translated into practice and implemented by multiple groups in hospital settings for the prevention of HAIs. CDC guidelines also have served as the basis the Centers for Medicare and Medicaid Services (CMS) Surgical Care Improvement Project. These evidence-based recommendations also have been incorporated into Joint Commission standards for accreditation of U.S. hospitals and have been endorsed by the National Quality Forum. Please select areas for development or enhancement of state HAI prevention efforts.

Table 3: State planning for HAI prevention activities

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level I	X	<input type="checkbox"/>	<p>1. Implement HICPAC recommendations.</p> <p>i. Develop strategies for implementation of HICPAC recommendations for at least two prevention targets specified by the state multidisciplinary group.</p> <p>The Department’s Division of Infectious Diseases sends out a memorandum and posts new HICPAC recommendations on the intranet. Examples of strategies that the Department will explore include:</p> <ol style="list-style-type: none"> 1. The Department sending a memorandum to APIC chapters endorsing the use of new HICPAC recommendations (in coordination with state collaboratives) 2. Develop an Infection Prevention page on the Department’s Web site, including links to HICPAC recommendations and the CDC’s Web site. 	<p>i. 2006</p> <p>1/2010</p>
			<i>Other activities or descriptions (not required):</i>	
				<p>2. Establish prevention working group under the state HAI advisory council to coordinate state HAI collaboratives.</p>

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			<p>collaboratives will be organized, one in the Cook County/Chicago area and one in central and southern Illinois. Each collaborative will have 10 hospital participants. The Cook County collaborative will be initiated first and will convene during March 2010. The central and southern Illinois collaborative will first convene during January 2011.</p>	
	<input type="checkbox"/>	<p>X</p>	<p>ii. Develop a communication strategy to facilitate peer-to-peer learning and sharing of best practices</p> <p>The Department and the IFMC-IL will facilitate periodic face-to-face collaborative meetings for project participants. These meetings will be spaced over the duration of the project at appropriate intervals to meet the needs of the participants and the goals of the project. The meetings will provide opportunities for learning and information sharing among participants.</p> <p>The initial meeting will lay the foundation for the collaborative effort by providing education related to collaborative structure, performance improvement methodology and principles, and an overview of evidence-based best practices for <i>C. difficile</i> prevention. Expert medical consultation will be provided on issues pertaining to <i>C. difficile</i>. The goals and objectives of the project and work expectations of participants will be presented and agreed upon.</p> <p>Collaborative meetings will be scheduled based on best practice guidelines and the identified needs and progress of the participants, and will always include expert consultation. In each meeting, participating hospitals will be expected to share ideas, lessons learned, challenges, opportunities and successes, working under the philosophy that “everybody</p>	<p>ii. 3/2010</p>

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			<p>teaches, everybody learns.”</p> <p>A series of webinars and teleconferences will be offered to supplement learning in face-to-face sessions and provide additional opportunities for information-sharing. LTCFs within referral networks of participating collaborative hospitals will be invited to participate in the educational sessions. To maximize the collaborative nature of the project, participant sharing of successes and challenges will be encouraged.</p>	
	<input type="checkbox"/>	X	<p>iii. Establish and adhere to feedback of a clear and standardized outcome data to track progress</p> <p>NHSN will be the method of data collection and reporting for the <i>C. difficile</i> collaborative utilizing the MDRO/CDAD module.</p> <p>The effectiveness of each face-to-face meeting, webinar and teleconference will be evaluated by participants and results will be shared with the Department and used to improve future exchanges. The IFMC-IL will assume responsibility for following up on any unresolved issues and/or unanswered questions that arise during these activities.</p> <p>In between collaborative meetings, hospitals will engage in action periods in which they will assess current processes, identify needs, implement changes and monitor progress, and interventions will be adapted based on progress toward goals.</p>	iii. 3/2010
		<i>Other activities or descriptions (not required):</i>		

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	<input type="checkbox"/>	X	<p>4. Develop state HAI prevention training competencies.</p> <p style="padding-left: 20px;">i. Consider establishing requirements for education and training of health care professionals in HAI prevention (e.g., certification requirements, public education campaigns and targeted provider education) or work with health care partners to establish best practices for training and certification.</p> <p>The Department is currently not considering establishing requirements for education and training of health care professionals in HAI prevention. The Department will defer education of IPs to the local APIC chapters. IPs will facilitate and/or provide HAI education and training for their hospitals' health care professionals based on the hospitals' risk assessments.</p> <p>Training opportunities will be sought for both infection preventionists and other healthcare workers including leadership. The Department will ask coordinators of the annual Illinois Immunization and Communicable Disease Conference to incorporate HAI prevention training into their curriculum. This will include information on screening and assessment of MRSA and the issue of colonization.</p> <p>The IHA will host a speaker on HAIs at their annual quality leadership meeting in May 2010, which targets quality leaders, chief medical officers and CEOs; they have also invited a speaker to their weekly conference calls with hospital quality leaders.</p> <p>The MCHC offered to host HAI training at their leadership meeting targeting hospital administrators.</p>	5/2010 -2014
			<i>Other activities or descriptions (not required):</i>	

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level II	<input type="checkbox"/>	X	5. Implement strategies for compliance to promote adherence to HICPAC recommendations. i. Consider developing statutory or regulatory standards for health care infection control and prevention or work with health care partners to establish best practices to ensure adherence The Department will consider working with health care partners to establish best practices to ensure adherence to HICPAC recommendations. As specified in Illinois Administrative Code 250.160, hospitals must comply with HICPAC guidelines. Assessing compliance to HICPAC guidelines is incorporated into Department hospital reviews as indicated.	i. 2011-2012
	<input type="checkbox"/>	<input type="checkbox"/>	ii. Coordinate/liaise with regulation and oversight activities such as inpatient or outpatient facility licensing/accrediting bodies and professional licensing organizations to prevent HAIs.	ii. N/A
	<input type="checkbox"/>	X	iii. Improve regulatory oversight of hospitals, enhancing surveyor training and tools, and adding sources and uses of infection control data.	iii. 2011-2012
	<input type="checkbox"/>	<input type="checkbox"/>	iv. Consider expanding regulation and oversight activities to currently unregulated settings where healthcare is delivered or work with health care partners to establish best practices to ensure adherence. The Department recognizes that implementing strategies for compliance to promote adherence to HICPAC recommendations is a high priority. However, due to workforce issues and limited resources and funding, the Department is unable to coordinate or implement collaborations with health care partners to establish best practices, work with professional licensing organizations, enhance surveyor training and tools, add sources and uses of	iv. N/A

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			infection control data, or expand regulations to unregulated settings, at this time. Compliance to HICPAC guidelines could be assessed during the validation process and passively assessed through online surveys.	
			<i>Other activities or descriptions (not required):</i>	
	<input type="checkbox"/>	X	<p>6. Enhance prevention infrastructure by increasing joint collaboratives with at least 20 hospitals (i.e. this may require a multi-state or regional collaborative in low population density regions).</p> <p>Two <i>C. difficile</i> collaboratives will be organized, one in the Cook County/Chicago area and one in central and southern Illinois. Each collaborative will have 10 hospital participants. The Department in conjunction with a group of Chicago hospital epidemiologists will examine the potential for incorporating a control group of hospitals in the Cook County/Chicago area using NHSN <i>C. difficile</i> reporting in order to enhance evaluation of the collaborative.</p>	Chicago - 3/2010 Central/Southern Illinois - 1/2011
			<i>Other activities or descriptions (not required):</i>	
	<input type="checkbox"/>	X	<p>7. Establish collaborative to prevent HAIs in nonhospital settings (e.g., long-term care, dialysis)</p> <p>The Department recognizes nonhospital settings as important places for the development of collaboratives, unfortunately due to a lack of resources and funding it is not possible to establish additional collaboratives (i.e., dialysis, ambulatory facilities) at</p>	2014

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			this time.	
			<i>Other activities or descriptions (not required):</i>	
Please also describe any additional activities, not listed above, that your state plans to undertake. Please include target dates for any new activities.				

4. Evaluation and Communications

Program evaluation is an essential organizational practice in public health. Continuous evaluation and communication of practice findings integrates science as a basis for decision-making and action for the prevention of HAIs. Evaluation and communication allows for learning and ongoing improvement to occur. Routine, practical evaluations can inform strategies for the prevention and control of HAIs. Please select areas for development or enhancement of state HAI prevention efforts.

Table 4: State HAI communication and evaluation planning

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level I			1. Conduct needs assessment and/or evaluation of the state HAI program to learn how to increase impact.	i. 3/2010
	<input type="checkbox"/>	X	<p>i. Establish evaluation activity to measure progress toward targets.</p> <p>Currently, all hospitals report <i>C. difficile</i> and MRSA cases, both present on admission and health care-acquired, through administrative data (hospital discharge data). The aggregate data are analyzed and available on the Illinois Hospital Report Card.</p> <p>A <i>C. difficile</i> collaborative will be implemented in March 2010. IFMC-IL staff will facilitate multidisciplinary team activities that incorporate performance improvement methodology and principles. Team activities will include: assessment of current practices, processes and culture; development of action plans that address improvement opportunities (Rapid-cycle Plan-Do-Study-Act (PDSA) methodology will be used for process improvement efforts); and development of interim measures to monitor success of planned interventions. NHSN data will be used to measure progress for this project; hospitals will develop interim measures to determine the success of individual improvement activities. In addition to the performance improvement methods, the IFMC-IL will provide educational activities to meet identified needs of each hospital. Formal training programs, “just in time” training and dissemination</p>	

			<p>of educational materials are methods that will be used.</p> <p>NHSN will be the method used for mandatory reporting and evaluation of HAI (e.g., CLABSI, SSI, MDRO/CDAD) rates.</p>	
	X	<input type="checkbox"/>	<p>ii. Establish systems for refining approaches based on data gathered.</p> <p>The Department will have all hospitals reporting MRSA and <i>C. difficile</i> infections through NHSN using the Lab Identification event; this will provide more accurate MRSA and <i>C. difficile</i> data.</p> <p>Validation activities (described in Table 2, Level 3, Number 8) will be implemented at staggered intervals throughout the year. Validation will measure accuracy of case identification and enable the Department to make improvements, if warranted.</p>	<p>ii. 2011</p> <p>3/2010</p>
			<i>Other activities or descriptions (not required):</i>	
			<p>2. Develop and implement a communication plan about the state's HAI program and progress to meet public and private stakeholders needs.</p>	<p>i. 1/2010</p>

	<input type="checkbox"/>	X	<p>i. Disseminate state priorities for HAI prevention to health care organizations, professional provider organizations, governmental agencies, non-profit public health organizations, and the public.</p> <p>The Department's Division of Patient Safety and Quality will notify healthcare organizations, professional provider organizations, and non-profit public health organizations about the state's HAI program by letter and will be sending out progress updates as indicated. The state's HAI program and progress reports will be published on the Hospital Report Card Web site.</p>	
			<p><i>Other activities or descriptions (not required):</i></p> <hr/>	
Level II	X	<input type="checkbox"/>	<p>3. Provide consumers access to useful health care quality measures.</p> <p>The Hospital Report Card Act (Public Act 93-563) requires the Illinois Department of Public Health, Division of Patient Safety and Quality, to report data on CLABSIs, MRSA, <i>C. difficile</i>, and SSIs through the Illinois Hospital Report Card (http://www.healthcarereportcard.illinois.gov/).</p>	11/ 2009
			<p><i>Other activities or descriptions (not required):</i></p>	
Level III	<input type="checkbox"/>	X	<p>4. Identify priorities and provide input to partners to help guide patient safety initiatives and research aimed at reducing HAIs.</p> <p>The Department's Division of Patient Safety and Quality will ensure all HAI Plan surveillance reports are included in the annual Progress and Financial Status Reports of the ELC</p>	3/2010

			program, submitted to the Illinois General Assembly, and shared with partners to assist in identifying priorities.	
			<i>Other activities or descriptions (not required):</i>	
Please also describe any additional activities, not listed above, that your state plans to undertake. Please include target dates for any new activities.				

Attachment 1

Vision for Electronic Public Health Surveillance

There are three primary components to our vision for electronic surveillance, as follows: automated reporting of notifiable diseases to public health agencies, software modules to increase the efficiency and reliability of reporting to CDC's National Healthcare Safety Network, and linking together hospitals to identify transfers of patients for whom a multi-drug resistant organism (MDRO) has been detected. All of these components can be incorporated into our system for reporting notifiable diseases (i.e., electronic laboratory reporting) to public health agencies. The backbone of the system is formed by distribution of servers to individual hospitals. Software has been installed on all servers that process messages or data transfers from each hospital's electronic medical record. These local data are mapped to nationally endorsed vocabulary standards (e.g., SNOMED, LOINC, and NHSN terms) and populate a database that has a standardized structure. This distributed system allows for opportunities to install public health focused software modules that require relatively little customization, and for creation of a networked public health information exchange.

To accomplish electronic laboratory reporting, the software installed on the server extracts notifiable diseases data, constructs the message, and securely sends these messages to public health agencies using the Public Health Information Network Messaging Standard (i.e., PHIN-MS). To facilitate health care-associated infection reporting to NHSN, software modules have been developed that extract data from the standardized database and present these data to infection preventionists for their interpretation. For those episodes that meet criteria for reporting to NHSN, messages will be constructed that will be compliant with the Clinical Document Architecture (CDA) standard being used by CDC. Initially, the focus was on prototypes for the following NHSN modules: CLABSI, and MDRO/CDAD laboratory ID events; for these modules, the software can dramatically improve the efficiency and reliability of reporting. To share patient-level information about epidemiologically important multi-drug resistant organisms, an off-site server will need to be connected to the local servers. One option is to share encrypted patient identifiers of those patients for whom the organism (e.g., MRSA, multi-drug resistant *Acinetobacter spp.* or *Klebsiella spp.*) has been identified and daily transfer of all patient admissions. When there is a match between the registry of patients previously harboring a MDRO and the daily admission registry, the admitting facility will be notified so that appropriate infection control precautions can be initiated. All of these components can be integrated into the Electronic Laboratory Reporting architecture that can be scaled to additional applications.