



Indiana State Department of Health

Indiana Plan for the Prevention of Healthcare Associated Infections 2010

December 30, 2009

Table of Contents	Page
Introduction	3
Development of the Indiana Plan for the Prevention of Healthcare Associated Infections 2010	4
Goals and Objectives of the Indiana Ambulatory Surgery Center Healthcare Associated Infection Initiative	5
Goals and Objectives of the Indiana Healthcare Associated Infection Initiative	6
Project Timeline: Develop an Indiana Plan for the Prevention of Healthcare Associated Infections 2010	7
Collaborative Team for the Indiana Plan for the Prevention of Healthcare Associated Infections 2010	8
Definitions and acronyms used in document	9
Indiana Plan	
Section 1: Develop or Enhance Healthcare Associated Infections Program Infrastructure	10
Section 2: Surveillance, Detection, Reporting, and Response	20
Section 3: Prevention	44
Section 4: Evaluation and Communications	61

Plan Prepared by:

Terry Whitson
Assistant Commissioner
Health Care Quality and Regulatory Commission
Indiana State Department of Health

Introduction

The prevention of healthcare associated infections is an important health issue. Evidence suggests that healthcare associated infections are an increasing healthcare problem resulting in part from multi-drug resistant organisms. The Indiana State Department of Health (ISDH) is leading a state quality improvement initiative to prevent healthcare associated infections. The Indiana Healthcare Associated Infection Initiative is a two-year state collaborative initiative to promote the prevention of healthcare associated infections.

Indiana has been active in addressing healthcare associated infections. Most recently, the Indiana State Department of Health utilized a collaborative process to address Methicillin-resistant *Staphylococcus aureus* (MRSA) exposures and provide Indiana communities with current MRSA information and necessary tools to promote prevention strategies. The Indiana State Department of Health also created a toolkit for *Clostridium difficile* infections.

Health care quality improvement organizations, professional associations, and individual health care facilities have also implemented initiatives directed towards the prevention of healthcare associated infections. The state involvement in this new initiative is intended to extend and complement previous efforts to prevent healthcare associated infections. Through collaboration with health care partners in quality improvement programs, Indiana strives to increase participation and consistency resulting in improved outcomes.

In September 2009, the Indiana State Department of Health was awarded a grant from the Centers for Disease Control and Prevention to support state healthcare associated infection activities. The Indiana Healthcare Associated Infection Initiative was developed as part of the federal grant. Indiana received funding through that grant for two projects:

1. The development of a state plan for the prevention of healthcare associated infections
2. A state healthcare associated infection prevention initiative

The grant is funded through the American Recovery and Reinvestment Act of 2009 (ARRA). The U.S. Department of Health and Human Services (HHS), Centers for Medicare and Medicaid Services (CMS), and Centers for Disease Control and Prevention (CDC) are administering this program. The Recovery Act is designed to stimulate economic recovery in various ways including strengthening the nation's healthcare infrastructure and reducing healthcare costs. Within the Recovery Act, \$50 million was authorized to support states in the prevention and reduction of healthcare associated infections (HAI) as outlined in the HHS Action Plan to Prevent Healthcare Associated Infections. Of the \$50 million Recovery Act funding, \$10 million is going to states to improve quality assurance at ambulatory surgery centers by implementing a new survey process to promote better infection control practices. Indiana was one of twelve initial states participating in that program. The remaining \$40 million is going to states to develop a state plan and implement a prevention program. The Indiana Healthcare Associated Infection Initiative is part of that funding.

Development of the Indiana Plan for the Prevention of Healthcare Associated Infections 2010

A primary purpose of the Indiana Healthcare Associated Infection Initiative is to develop an Indiana Plan for the Prevention of Healthcare Associated Infections. Like most states, Indiana has never produced a state plan focusing on healthcare associated infections. State health plans have been broader plans that plan for a wide range of health issues. Developing a state plan focusing solely on one healthcare problem is intended to provide a more detailed evaluation and response to the healthcare associated infection problem.

As part of the CDC grant, each participating state is funded to develop a state plan for healthcare associated infections. Each state is to submit their state plan by January 1, 2010. CDC provided a template for the state plan that details essential components. Under the plan developed in this document, the column titled “Indiana Plan” is directly from the CDC template and reflects the essential components of the plan. The next column titled “Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status” expands on the components and identifies specific Indiana objectives and implementation plans.

In October 2009 the Indiana State Department of Health organized a Collaborative Team to assist in the development of the state plan. The Indiana State Department of Health contracted with the University of Indianapolis Center for Aging & Community to assist in the coordination and facilitation of the development of the state plan. The Collaborative Team met as a group on November 20 and December 10 with additional smaller planning teams meeting during that period. The Collaborative Team provided recommendations for the state plan. The Indiana State Department of Health utilized these recommendations in development of the initial Indiana Plan.

The initial Indiana Plan to be completed by January 1 will include the essential state plan components along with some state objectives. The Collaborative Team will continue its work after January 1, 2010. Indiana intends for the Indiana Plan to be a working document that reflects ongoing activities. The goal is to expand the initial Indiana Plan into a detailed working comprehensive plan for preventing healthcare associated infections. The ISDH will update the Indiana Plan to provide the ongoing implementation status of the various components and post the updated plan on the ISDH Web site. The Indiana State Department of Health expects to complete a final Indiana Plan by June 30, 2010. The Indiana Plan for the Prevention of Healthcare Associated Infections 2010 is intended to serve as an initial state plan for the period through December 31, 2011 which is the end date for the Indiana Healthcare Associated Infection Initiative.

Goals and Objectives of the Indiana Ambulatory Surgery Center Healthcare Associated Infection Initiative

The goals of the Indiana Ambulatory Surgery Center Healthcare Associated Infection Initiative are:

- Improve the identification of healthcare associated infections by ambulatory surgery centers
- Reduce the number of healthcare associated infections
- Increase public and healthcare worker awareness of healthcare associated infections

Objectives of the Indiana Ambulatory Surgery Center Healthcare Associated Infection Initiative are to:

- Increase the frequency of federal certification surveys at ambulatory surgery centers
- Implement new federal infection control standards for ambulatory surgery centers
- Develop and implement a healthcare associated infections surveillance and reporting system for ambulatory surgery centers
- Ensure adequate training of ambulatory surgery center staff on infection control practices

Project Director for the Indiana Ambulatory Surgery Center Healthcare Associated Infection Initiative:

Mary Azbill
Director, Division of Acute Care
Indiana State Department of Health

Goals and Objectives of the Indiana Healthcare Associated Infection Initiative

The goals of the Indiana Healthcare Associated Infection Initiative are:

- Improve the identification of healthcare associated infections by health care providers
- Reduce the number of healthcare associated infections
- Increase public and healthcare worker awareness of healthcare associated infections

Objectives of the Indiana Healthcare Associated Infection Initiative are to:

- Create a State Plan for Healthcare Associated Infections
- Develop and implement a healthcare associated infections surveillance and reporting system
- Develop and implement a healthcare associated infections prevention initiative

The Indiana Healthcare Associated Infection Initiative Collaborative Team will consist of the following planning teams contributing to the development of the state plan and state prevention initiative:

- Infrastructure Planning Team: Task is to plan healthcare associated infection program infrastructure
- Surveillance Planning Team: Task is to plan surveillance and reporting of healthcare associated infections
- Prevention Planning Team: Task is to plan the prevention of a healthcare associated infections initiative
- Evaluation Planning Team: Task is to plan evaluation and communication of the healthcare associated infections initiative
- State Planning Team: State team consisting of State Epidemiology Resource Center, State Laboratory, Public Health Preparedness, and Health Care Facility Licensing and Certification
- Expert Advisory Team: Team consisting of physicians and infectious disease professionals

Project Director for the Indiana Healthcare Associated Infection Initiative:

Terry Whitson
Assistant Commissioner
Indiana State Department of Health

Project Coordinator: Development of Indiana Plan for the Prevention of Healthcare Associated Infections 2010

Ellen Miller, PhD

Director, Center for Aging & Community

University of Indianapolis

Project Timeline: Develop an Indiana Plan for the Prevention of Healthcare Associated Infections 2010

Project start date: September 2, 2009 (date of CDC grant award)

Project completion: June 30, 2010

Project milestones:

- A. October 2009: Creation of the Collaborative Team
- B. November 20, 2009: Initial meeting of the Collaborative Team
- C. December 30, 2009: Completion of Indiana Plan and Plan submitted to HHS / CDC
- D. January-March 2010: Continued development of Indiana Plan focusing on surveillance and prevention plans
- E. June 30, 2010: Expanded Indiana Plan for Prevention of Healthcare Associated Infections completed

Project Information:

Information about the Indiana Healthcare Associated Infection Initiative may be found on the ISDH Web site in the Health Care Quality Resource Center at <http://www.in.gov/isdh/24769.htm>.

Collaborative Team for the Indiana Plan for the Prevention of Healthcare Associated Infections 2010

A state collaborative team was assembled in November 2009 to assist the ISDH in planning the state plan and developing the subsequent initiative. The collaborative team includes stakeholders in the prevention of healthcare associated infections. The ISDH expects additional groups and individuals to be added as the initiative progresses. The University of Indianapolis Center for Aging & Community served as coordinator for activities for development of the Indiana Plan. The collaborative team includes:

Association of Professionals in Infection Control & Epidemiology, Washington DC – Leslie Kretzu
Bingham McHale LLP – Melissa Wray
Community Health Network – Kathy Zoppi
Health Care Excel –Kathy Hybarger; Rebecca Royer
Hoosier Owners and Providers for the Elderly – Becky Bartle
Indiana Association for Home & Hospice Care – Todd Stallings; Jean Macdonald
Indiana Association of Professionals in Infection Control – Bridget Brizek, Laurie Fish (Clarian Health), Carol Kellams (Hancock Regional Hospital)
Indiana Hospital Association – Evelyn Catt, Bernice Ulrich
Indiana Patient Safety Center – Betsy Lee
Indiana State Department of Health – Terry Whitson
 Division of Acute Care – Mary Azbill
 Division of Health Care Education and Quality - Nancy Adams; Gina Berkshire
 Division of Long Term Care – Karen Powers
 Division of Program Development and Quality Initiatives - Burton Garten
 State Laboratory - Judy Lovchik
 Epidemiology Resource Center - Pam Pontones, Wayne Staggs, Jean Svendsen,
Indiana University Center for Health Services and Outcomes Research, Regenstrief Institute – Dr. Brad Doebbeling
Indiana University School of Nursing – Jan Ward
United Senior Action Foundation – Robyn Grant
University of Indianapolis Center for Aging and Community – Ellen Miller; Jennifer Bachman; Lidia Dubicki

Definitions and acronyms used in document:

- Acronyms:
 - CAUTI: Catheter associated urinary tract infection
 - CDC: Center for Disease Control and Prevention
 - CDI: *Clostridium difficile* infection
 - CLABSI: Central line associated bloodstream infection
 - CMS: Centers for Medicare and Medicaid Services
 - HAI: Healthcare associated infections
 - HICPAC: Healthcare Infection Control Practices Advisory Committee
 - HHS: U.S. Department of Health and Human Services
 - ISDH: Indiana State Department of Health
 - NHSN: National Healthcare Safety Network
 - MDRO: Multidrug resistant organism
 - MRSA: Methicillin-resistant *Staphylococcus aureus*
 - SSI: Surgical site infection
 - VAP: Ventilator associated pneumonia

- HAI: Healthcare Associated Infections included in this initiative
 - Catheter associated urinary tract infections (CAUTI)
 - Central line associated blood stream infections (CLABSI)
 - *Clostridium difficile* infection (CDI or “C. diff.”)
 - Methicillin-resistant *Staphylococcus aureus* (MRSA)
 - Surgical site infections (SSI)
 - Ventilator associated pneumonia (VAP)

Indiana Plan

Section 1: Develop or Enhance Healthcare Associated Infections Program Infrastructure

Successful healthcare associated infection prevention requires close integration and collaboration with state and local infection prevention activities and systems. Consistency and compatibility of healthcare associated infection data collected across facilities will allow for greater success in reaching state and national goals. Section 1 of the Indiana Plan identifies a plan for improving state infrastructure for healthcare associated infection surveillance, prevention and control.

Table 1: State infrastructure planning for healthcare associated infection surveillance, prevention and control.

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		PLANNING LEVEL 1		
		1. Establish statewide HAI prevention leadership through the formation of multidisciplinary group or state HAI advisory council		
	X	a. Collaborate with local and regional partners [e.g., state hospital associations, professional societies for infection control and healthcare epidemiology, academic organizations, laboratorians and networks of acute care hospitals and long term care facilities (LTCFs)]	<p><i>Objective:</i> Establish a collaborative team that includes infection control and health care quality partners to assist in planning and implementing the Indiana Plan and Indiana Healthcare Associated Infection Initiative.</p> <p><i>Approach:</i> The ISDH will serve as project leader for the Indiana Plan and the Indiana Healthcare Associated Infection Initiative. The ISDH will contract with an entity or entities to serve as project coordinator for the Plan and Initiative.</p> <p><i>Responsible Individual:</i> Terry Whitson of the ISDH is responsible for assembling the collaborative team. The</p>	Objective Target Date: 12/10/09 COMPLETED

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>University of Indianapolis Center for Aging & Community is responsible for coordinating the collaborative team meetings for the development of the Indiana Plan. A contractor will be selected to coordinate the collaborative team meetings for the development of the Indiana Healthcare Associated Infections Initiative.</p> <p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> 1. The ISDH will assemble a collaborative team of partners to assist in the development of the Indiana Plan. Status: The ISDH identified individuals from a diversity of interests related to HAI to serve as collaborative team members (10/31/09). Additional members were identified by the team at the first two meetings (11/20/09 and 12/10/09). COMPLETED. 2. The ISDH will contract with an entity to serve as project coordinator for the development of the Indiana Plan. Status: The ISDH contracted with the University of Indianapolis Center for Aging & Community to coordinate the development of the Indiana Plan (10/31/09). COMPLETED. 3. The Indiana Plan Collaborative Team will meet as needed to facilitate completion of the Indiana Plan. Status: Conducted initial meeting of the collaborative team to start work on the Indiana Plan and Indiana Healthcare Associated Infection Initiative (11/20/2009). Developed five planning 	

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>teams to develop work plans for the Indiana Plan. Planning teams: A) Infrastructure B) Surveillance, Detection Reporting & Response C) Prevention D) Evaluation, Oversight Communication E) State Resources and Coordination Team work plans and reporting template were reviewed and revised by the ISDH and Collaborative Team at its 12/10/09 meeting. COMPLETED.</p> <p>4. The ISDH will contract with an entity to serve as project coordinator for the Indiana Healthcare Associated Infection Initiative. Target date of 2/28/10. Status: The ISDH began the Request for Proposal process (10/09). The ISDH expects the contractor to be selected in January 2010.</p> <p>5. Monthly meetings of the Indiana Healthcare Associated Infection Initiative Collaborative Team will be conducted throughout 2010 and 2011. Status: Monthly team meetings have been scheduled for 2010 and 2011 (12/10/09). COMPLETED</p>	
	X	b. Identify specific HAI prevention targets consistent with HHS priorities	<p><i>Objective:</i> The Indiana Healthcare Associated Infection Initiative will identify at least two HAI prevention targets consistent with HHS priorities that promote a multi-disciplinary approach to addressing infection prevention.</p> <p><i>Approach:</i> The collaborative team selected <i>Clostridium difficile</i> and catheter associated urinary tract infections</p>	Objective target date: 12/31/09 COMPLETED

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>as the two primary areas of focus with support and information to be provided for the other four infection types. The two primary areas of focus were selected because they occur with multiple healthcare providers. Focusing on these two infections allows for continuation of state efforts to improve care coordination.</p> <p><i>Implementation:</i></p> <p>1. The collaborative team will recommend at least two HAI for inclusion in the Initiative.</p> <p>Status: The collaborative team reviewed the issue at its first two meetings. The ISDH recommended <i>Clostridium difficile</i> as the primary focus because it is increasing in frequency and occurs with multiple providers. The team recommended catheter associated urinary tract infections as the second primary focus. The team recommended that the Initiative be planned such that resources and support are provided for the other four HAI (12/10/09). COMPLETED</p>	
		2. Establish an HAI surveillance prevention and control program		
	X	a. Designate a State HAI Prevention Coordinator	<p><i>Objective:</i> Designate a state health employee to serve as Indiana HAI Prevention Coordinator.</p> <p><i>Approach:</i> In June 2009, the Indiana State Health Commissioner designated Terry Whitson, Assistant Commissioner for Health Care Quality and Regulation, to serve as Project Leader for the Indiana Healthcare Associated Infection Initiative.</p>	Objective target date: 12/31/09 COMPLETED

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p><i>Implementation:</i></p> <ol style="list-style-type: none"> In June 2009 the State Health Commissioner designated a Project Leader for the Indiana Healthcare Associated Infection Initiative. At the completion of the Initiative, the ISDH will review the Initiative and determine an organization plan for continuation of the program. 	
	X	<p>b. Develop dedicated, trained HAI staff with at least one FTE (or contracted equivalent) to oversee the four major HAI activity areas (Integration, Collaboration, and Capacity Building; Reporting, Detection, Response and Surveillance; Prevention; Evaluation, Oversight and Communication)</p>	<p><i>Objective:</i> Develop a dedicated state HAI Program within the Indiana State Department of Health.</p> <p><i>Approach:</i> The intent is to develop an interdisciplinary and interdepartmental Indiana HAI Program to promote a coordinated approach to the program.</p> <p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> The ISDH will hire an Epidemiologist with expertise in healthcare associated infections. The position will be funded through the HAI Grant. The individual will coordinate implementation of the Indiana Plan, develop training on HAI for staff, and work with collaborative team to identify and address training needs and action. Target is to have position hired by 7/1/10. <p>Status: The Project Leader met with State Personnel to identify and create a position for this purpose (11/5/09). The position will report to the Epidemiology Resource Center once hired and will likely be housed in the Health Care Quality and</p>	Objective target date: 7/1/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>Regulatory Commission for the duration of the Initiative. The State Epidemiologist will be responsible for overseeing the hiring process once the position is approved to post (11/23/09).</p> <p>2. The State Planning Team will conduct a study to determine what components are needed for a State HAI Program and assess staffing needs for an ongoing State HAI Program. Target date for completion is 7/1/10. Status: An initial team meeting was held on 11/23/09.</p> <p>3. The ISDH will designate support staff for the State HAI Program. The support staff will be funded through the HAI Grant. Target date for completion is 7/1/10. Status: An initial team meeting was held on 11/23/09.</p>	
		3. Integrate laboratory activities with HAI surveillance, prevention and control efforts.		
	X	a. 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><i>Objective:</i> Improve laboratory capacity for identification of healthcare associated infections.</p> <p><i>Implementation and Status:</i></p> <p>1. The State Planning Team will identify laboratory needs and support required to coordinate and provide information related to HAI surveillance, prevention and control efforts. Target date for completion is 7/1/10. Status: Pending</p> <p>2. The State Planning Team will study state laboratory</p>	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>capacity with regards to HAI. The State Laboratory staff will work with Epidemiology staff in early 2010 to identify the HAI pathogens for which identification, resistance testing, and typing is most required in Indiana. Using a survey tool and the sentinel laboratory contact database, the Laboratory Staff will determine the Indiana State Public Health Laboratory System's capacity gaps with respect to HAI's which will subsequently targeted for improvement. Subsequent activities will address capacity gaps in technology and competency. Responsible individuals: State Lab Director and State Epidemiologist. Target date for completion is 7/1/10. Status: Pending</p> <p>3. The Collaborative Team will assess the capacity of clinical laboratories and the need for an outreach team to improve capacity of laboratories. Target date for completion is 12/31/10. Status: Pending</p>	
		PLANNING LEVEL 2		
		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)		
	X	[as stated above]	<i>Objective:</i> Improve coordination among the ISDH Health Care Facility Licensing and Certification	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>Program, State Laboratory, Epidemiology Resource Center, and Public Health Preparedness Program as related to healthcare associated infections.</p> <p><i>Implementation and Status:</i></p> <p>1. The ISDH will establish a State Planning Team composed of the above department program areas to coordinate state HAI activities to include assisting with surveillance, prevention and control, and identification and development of a program for reporting and data collection (NHSN). Target date for completion is 12/1/09. Status: A State Planning Team was organized and an initial meeting occurred on November 23, 2009. COMPLETED</p> <p>2. The State Planning Team will collaborate with other planning teams and organizations to support implementation of the Indiana Plan focusing on coordination of surveillance and prevention activities. The additional collaboration will include the Indiana Health Information Exchange, provider associations, Regenstrief Institute (Dr. Doebbeling), and others as needed. Target date for completion of a need assessment is 7/1/10 with ongoing activities as needed. Status: Pending</p>	
		<p>5. Facilitate use of standards-based formats (e.g., Clinical Document Architecture, electronic messages) by healthcare facilities for purposes of electronic reporting of HAI</p>		

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		<p>data. Providing technical assistance or other incentives for implementations of standards-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 healthcare facilities and regional nodes of healthcare 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>		
	X	[as stated above]	<p><i>Objective:</i> Establish a state HAI electronic reporting system that is easily accessible to providers and minimizes time and effort required to gather and report data.</p> <p><i>Approach:</i> In 2005, Indiana developed its Medical Error Reporting System which utilizes a department electronic reporting system. Indiana has supported HAI reporting based on consensus standards. Indiana is in favor of utilizing NHSN standards and the NHSN reporting system. The ISDH would like to support the implementation of the system to minimize impact on providers.</p>	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> 1. The Collaborative Team will study how the State can link with and utilize the NHSN system. This will include strengthening the relationship between health care facilities and regional healthcare information nodes towards improving electronic reporting. Target date for completion is 7/1/10. Status: Pending 2. The Collaborative Team will evaluate the need for training and support related to the NHSN reporting system. The objective will be to determine needs to ensure that providers who will be reporting to system understand and can access the system. Target date for completion is 7/1/10. Status: Pending 3. The ISDH will assess needs from surveillance and plan accordingly for ways to improve the reporting and determine needs related to NHSN updates. Ongoing activity. Status: Pending 	

Indiana Plan

Section 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 healthcare associated infection reduction. This, combined with improvements to simplify and enhance data collection, and improve dissemination of results to healthcare providers and the public are essential steps toward increasing healthcare associated infection prevention capacity.

The HHS Action Plan identifies targets and metrics for five categories of healthcare associated infections and identified ventilator associated pneumonia as a healthcare associated infection under development for metrics and targets:

- Catheter associated urinary tract infections (CAUTI)
- Central line associated bloodstream infections (CLABSI)
- *Clostridium difficile* infections (CDI)
- Methicillin-resistant *Staphylococcus aureus* (MRSA) infections
- Surgical site infections (SSI)
- Ventilator associated pneumonia (VAP)

Work is ongoing to identify optimal metrics and targets for ventilator associated pneumonia infections. Detection and measurement with existing tools and methods can be combined however 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 healthcare providers is central to healthcare associated infection 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.

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 healthcare associated infections

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		PLANNING LEVEL 1		
		1. Improve HAI outbreak detection and investigation		
X		a. Work with partners including CSTE, CDC, state legislatures, and providers across the healthcare continuum to improve outbreak reporting to state health departments	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Establish a state system for a timely recognition of HAI outbreaks.</p> <p><i>Implementation and Status:</i></p> <p>1. The State Planning Team will identify components of HAI reporting needed to effectively identify and analyze infection trends and outbreaks in Indiana. The Team will then develop a plan for implementation in coordination with health care partners. Target date for completion is 12/31/10. Status: Pending</p>	Objective target date: 12/31/10
X		b. Establish protocols and provide training for health department staff to investigate outbreaks, clusters or unusual cases of HAIs.	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Establish a state system for a timely investigation of HAI outbreaks, clusters, or unusual cases.</p>	Objective target date: 7/1/11

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p><i>Approach:</i> It is the state’s intent to conduct joint training of ISDH staff and provider infection prevention staff on HAI outbreak identification.</p> <p><i>Implementation and Status:</i></p> <p>1. The State Planning Team will collaborate with partners to develop a standard tool for data collection for reporting of outbreaks to include identification of outbreak baselines and provide training on outbreak identification. Responsible party: State Epidemiology Resource Center. Target date for completion is 7/1/11. Status: Pending</p>	
X		c. 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>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Ensure patient confidentiality when investigating HAI incidents and outbreaks.</p> <p><i>Approach:</i> The Indiana Code (IC 16-41-8(a)) and Indiana Administrative Code (410 IAC 1-2.3) protects patient information and specifically protects epidemiological information.</p> <p><i>Implementation and Status:</i></p> <p>1. The State Planning Team will review policies and procedures to determine the extent to which patient information is protected through the reporting of HAI data. Target date for completion is 7/1/10.</p>	Objective target date: 7/1/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			Status: Pending	
X		d. 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>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Improve the state surveillance system for HAI.</p> <p><i>Approach:</i> Although many organisms that cause HAIs are not specifically reportable, the Indiana Administrative Code (410 IAC 1-2.3-49(f)) allows the ISDH to request and obtain epidemiological information on cases of communicable disease or diseases of public health significance including, 1) outbreaks; 2) diseases caused by drug-resistant organisms, or 3) emerging infectious diseases. Acute cases of hepatitis B and C are currently reportable by 410 IAC 1-2.3. Epidemiology staff are tasked with associating cases that may have common links such as a health care facility (hospital, ambulatory surgery center, dialysis center, etc.).</p> <p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> 1. The Epidemiology Resource Center will conduct a review of the Indiana surveillance system to identify potential improvements for HAI surveillance. Target date for completion is 12/31/10. Status: Pending 2. The Epidemiology Resource Center will evaluate “cluster detection software” for potential 	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			use in improving the HAI surveillance system. Target date for completion is 12/31/10. Status: Pending	
		2. Enhance laboratory capacity for state and local detection and response to new and emerging HAI issues.		
X		[as stated above]	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Determine gaps in detection and response to new and emerging HAI issues.</p> <p><i>Implementation and Status:</i></p> <p>1. Using a survey tool and the sentinel laboratory contact database, the State Laboratory will determine the gaps in Indiana State Public Health Laboratory System's capacity detect and appropriately respond to HAI's. Subsequent activities will enhance the response by addressing capacity gaps in technology and competency through training and test development. Target date for completion is 12/31/10. Status: Pending</p>	Objective target date: 12/31/09
		LEVEL 2		
		3. Improve communication of HAI outbreaks and infection control breaches		

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
X		a. Develop standard reporting criteria including, number, size and type of HAI outbreak for health departments and CDC	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Develop standard HAI outbreak reporting criteria.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will identify how to coordinate outbreak and surveillance data with health care provider reporting practices to ensure timeliness for outbreak reporting. Target date for completion is 7/1/10. Status: Pending</p>	Objective target date: 7/1/10
X		b. 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>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Develop and implement a communication system for disseminating HAI outbreak information.</p> <p><i>Implementation and Status:</i></p> <p>1. The State Planning Team will review the department communication system to determine whether HAI outbreak information reaches the appropriate individuals and health care providers. Target date for completion is 10/1/10. Status: Pending</p>	Objective target date: 10/1/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		4. Identify at least two priority prevention targets for surveillance in support of the HHS HAI Action Plan		
	X	a. Catheter associated urinary tract infections (CAUTI)	<p><i>Objective:</i> Identify two priority HAI targets for the Initiative and determine whether the other four HAI will be addressed in the Initiative.</p> <p><i>Approach:</i> Catheter associated urinary tract infection has been identified as the second of the priority prevention targets and will be a focus area for the Indiana Healthcare Associated Infection Initiative.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will review the six healthcare associated infections and identify two priority targets for the Initiative and determine how the other four types of infections will be addressed within the initiative.</p> <p>Status: The Collaborative Team identified CDI and CAUTI as the two priority targets for the initiative. The plan is to include programming and support for the other four HAI within the Initiative (12/10/09). COMPLETED.</p>	Objective target date: 12/31/09 COMPLETED
	X	b. Central line associated bloodstream infections (CLABSI)	<p><i>Objective:</i> Develop a plan to target central line associated bloodstream infections for HAI surveillance.</p> <p><i>Approach:</i> Central line associated bloodstream infection was not selected as one of the two priority prevention targets for the Indiana Healthcare Associated Infection Initiative. The plan however is to include</p>	Objective target date: 12/31/09 COMPLETED

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>surveillance and information on the central line associated bloodstream infections as part of the Initiative and provide support to participants on that infection.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will review the six healthcare associated infections and identify two priority targets for the Initiative and determine how the other four types of infections will be addressed within the initiative.</p> <p>Status: The Collaborative Team identified CDI and CAUTI as the two priority targets for the initiative. The plan is to include programming and support for the other four HAI within the Initiative (12/10/09). COMPLETED.</p>	
	X	c. <i>Clostridium difficile</i> infections (CDI)	<p><i>Objective:</i> Develop a plan to target <i>Clostridium difficile</i> infections for HAI surveillance.</p> <p><i>Approach:</i> <i>Clostridium difficile</i> infection has been identified as the first of the priority prevention targets and will be a focus area for the Indiana Healthcare Associated Infection Initiative.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will review the six healthcare associated infections and identify two priority targets for the Initiative and determine how the other four types of infections will be addressed within the</p>	Objective target date: 12/31/09 COMPLETED

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>initiative. Status: The Collaborative Team identified CDI and CAUTI as the two priority targets for the initiative. The plan is to include programming and support for the other four HAI within the Initiative (12/10/09). COMPLETED.</p>	
	X	d. Methicillin-resistant Staphylococcus aureus (MRSA) infections	<p><i>Objective:</i> Develop a plan to target Methicillin-resistant Staphylococcus aureus infections for HAI surveillance.</p> <p><i>Approach:</i> Methicillin-resistant Staphylococcus aureus infection Central line associated bloodstream infection was not selected as one of the two priority prevention targets for the Indiana Healthcare Associated Infection Initiative. The plan however is to include surveillance and information on Methicillin-resistant Staphylococcus aureus as part of the Initiative and provide support to participants on that infection.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will review the six healthcare associated infections and identify two priority targets for the Initiative and determine how the other four types of infections will be addressed within the initiative. Status: The Collaborative Team identified CDI and CAUTI as the two priority targets for the initiative. The plan is to include programming and support for the other four HAI within the Initiative (12/10/09). COMPLETED.</p>	Objective target date: 12/31/09 COMPLETED

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
	X	e. Surgical site infections (SSI)	<p><i>Objective:</i> Develop a plan to target surgical site infections for HAI surveillance.</p> <p><i>Approach:</i> Surgical site infection was not selected as one of the two priority prevention targets for the Indiana Healthcare Associated Infection Initiative. The plan however is to include surveillance and information on surgical site infections as part of the Initiative and provide support to participants on that infection.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will review the six healthcare associated infections and identify two priority targets for the Initiative and determine how the other four types of infections will be addressed within the initiative.</p> <p>Status: The Collaborative Team identified CDI and CAUTI as the two priority targets for the initiative. The plan is to include programming and support for the other four HAI within the Initiative (12/10/09). COMPLETED.</p>	Objective target date: 12/31/09. COMPLETED.
	X	f. Ventilator associated pneumonia (VAP)	<p><i>Objective:</i> Develop a plan to target ventilator associated pneumonia infections for HAI surveillance.</p> <p><i>Approach:</i> Ventilator associated pneumonia was not selected as one of the two priority prevention targets for the Indiana Healthcare Associated Infection Initiative. The plan however is to include surveillance and information on ventilator associated pneumonia as part of the Initiative and provide support to participants on</p>	Objective target date: 12/31/09. COMPLETED.

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>that infection.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will review the six healthcare associated infections and identify two priority targets for the Initiative and determine how the other four types of infections will be addressed within the initiative.</p> <p>Status: The Collaborative Team identified CDI and CAUTI as the two priority targets for the initiative. The plan is to include programming and support for the other four HAI within the Initiative (12/10/09). COMPLETED.</p>	
		5. Adopt national standards for data and technology to track HAIs (e.g., NHSN).		
X		a. Develop metrics to measure progress towards national goals (align with targeted state goals). (See HHS Action Plan Appendix 1).	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Identify and adopt standards and technology to track HAI.</p> <p><i>Approach:</i> Indiana’s intent is to adopt the NHSN standards and reporting system for use in tracking HAI.</p> <p><i>Implementation and Status:</i></p> <p>1. The State will identify and adopt standards for reporting HAI in alignment with HHS and CDC</p>	Objective target date: 10/1/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>standards. Target date for completion is 4/1/10. Status: Pending</p> <p>2. The State will identify and adopt a HAI reporting system in alignment with HHS and CDC systems. Target date for completion is 4/ 1/10. Status: Pending</p> <p>3. The State will assess the resources needed for reporting HAI data and implement a program to support providers in reporting HAI data. Target date for completion is 10/1/10. Status: Pending</p>	
X		b. Establish baseline measurements for prevention targets	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Establish baseline measurements for prevention targets based on current Indiana data.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will perform a risk assessment to identify probable current infection rates and recommend reduction targets for the six HAI. Target date for completion is 6/1/10. Status: The Collaborative Team identified the two priority targets for the initiative and plans to include the other four infection types as part of the Initiative (12/10/09).</p>	Objective target date: 7/1/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>2. The Initiative will be developed to include identifying baseline measurements for each participating facility and agency. Target date for completion is 7/1/10.</p> <p>Status: Pending</p>	
		<p>6. Develop state surveillance training competencies</p>		
X		<p>a. Conduct local training for appropriate use of surveillance systems (e.g., NHSN) including facility and group enrollment, data collection, management, and analysis</p>	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Provide support to health care facilities and agencies in implementing the NHSN reporting system and achieving accurate HAI reporting and analysis.</p> <p><i>Approach:</i> The Regenstrief Institute has partnered with CDC and academic institutions to develop systems to facilitate efficient HAI reporting utilizing the NHSN system. Indiana plans to assist in implementing that system or a comparable system.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will develop a training program to assist health care facilities in implementing the NHSN reporting system and conduct at least one statewide training session on the NHSN system. Target date for completion is 11/1/10.</p> <p>Status: Pending</p>	<p>Objective target date: 11/1/09</p>

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		7. Develop tailored reports of data analyses for state or region prepared by state personnel		
X		[as stated above]	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Develop and release an annual report on healthcare associated infections in Indiana. The objective is for the initial report to cover 2011 data and be released in September 2012.</p> <p><i>Approach:</i> The state plans to develop an annual report on HAI based on a calendar year. The HAI report will likely be included as part of the annual Indiana Medical Error Report.</p> <p><i>Implementation and Status:</i></p> <p>1. The state team will study HAI reports and develop a report template consistent with planned data collection and analysis. Target date for completion is 12/31/10. Status: Pending</p> <p>2. The ISDH will gather and analyze 2011 data and publish an annual report in 2012. Target date for completion is 10/1/12. Status: Pending</p>	Objective target date: 10/1/12
		PLANNING LEVEL 3		
		8. Validate data entered into HAI surveillance		

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		(e.g., through healthcare records review, parallel database comparison) to measure accuracy and reliability of HAI data collection		
X		a. Develop a validation plan	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Develop a validation plan to measure the accuracy and reliability of HAI data collection.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will develop a validation plan to evaluate the accuracy and reliability of HAI data collection. The target for the first draft is 6/30/10 with a completed plan by 12/31/10. Status: Pending</p>	Objective target date: 12/31/10.
X		b. Pilot test validation methods in a sample of healthcare facilities	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Implement a validation plan to measure the accuracy and reliability of HAI data collection.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will develop a pilot testing of the validation plan to evaluate the accuracy and reliability of HAI data collection. The target to begin the pilot testing is 7/1/10 with pilot testing concluding by 12/31/10.</p>	Objective target date: 12/31/10.

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			Status: Pending	
X		c. Modify validation plan and methods in accordance with findings from pilot project	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Improve accuracy and reliability of HAI data collection through validation activities.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will set up a process for the analysis of validation activities and modification of data collection as suggested through the validation process. The team will continue make improvements to the system throughout the initiative. Modification of the validation system will continue through the end of the Initiative. Target date for completion is 12/31/11.</p> <p>Status: Pending</p>	Objective target date: 12/31/11.
X		d. Implement validation plan and methods in all healthcare facilities participating in HAI surveillance	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Improve accuracy and reliability of HAI data collection through validation activities.</p> <p><i>Implementation and Status:</i></p> <p>1. The collaborative team will implement the validation plan to evaluate the accuracy and reliability of HAI data collection. Target date for completion is 1/1/11.</p>	Objective target date: 1/1/11

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			Status: Pending	
X		e. Analyze and report validation findings	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Improve accuracy and reliability of HAI data collection through validation activities.</p> <p><i>Implementation and Status:</i></p> <p>1. The ISDH will analyze findings and prepare a report in collaboration with the validation team on data validation findings. The report is targeted to be included in the first annual report of HAI reporting. Target date for completion is 7/1/12. Status: Pending</p>	Objective target date: 7/1/12
X		f. Use validation findings to provide operational guidance for healthcare facilities that targets any data shortcomings detected	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Improve accuracy and reliability of HAI data collection through validation activities.</p> <p><i>Implementation and Status:</i></p> <p>1. The ISDH will regularly publish guidance on the data collection system as identified through validation activities. The guidance will be included in the Indiana Healthcare Associated Infection Initiative Newsletter. Ongoing activity.</p>	Objective target date: Ongoing

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>Status: The ISDH has created a template for the electronic Indiana HAI Newsletter. The ISDH expects to begin the newsletter in early 2010 (12/14/09).</p>	
		<p>9. Develop preparedness plans for improved response to HAI</p>		
X		<p>a. 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>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Improve preparedness plan to incorporate processes for infection control breaches, suspected cases, and outbreaks.</p> <p><i>Implementation and Status:</i></p> <p>1. The State Planning Team will review processes and response procedures for HAI events to ensure preparedness coordination. Target date for completion is 7/1/11.</p> <p>Status: Pending</p>	<p>Objective target date: 7/1/11</p>
		<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>		
	X	[as stated above]	[The CDC Grant did not provide funding to the ISDH	Objective target

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Improve collaboration between licensing and certification programs and epidemiology programs to improve infection control practices.</p> <p><i>Approach:</i> State licensing rules and federal certification regulations require health care facilities, agencies, and clinics to follow appropriate infection control practices. Indiana investigates all complaints filed against state licensed health care entities related to infection control. The Indiana Healthcare Associated Infection Initiative is intended to support health care providers and patients/residents in improving infection control practices and systems.</p> <p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> 1. The collaborative team will review continuing education and training standards for healthcare personnel related to infection control and integrate into the Indiana Healthcare Associated Infection Initiative. Target date for completion is 9/1/10. Status: Pending 2. The Division of Acute Care will implement increased infection control standards as part of the ambulatory surgery center certification program of the HHS ARRA HAI Initiative. Target date for completion is 9/30/09. Status: The Division of Acute Care was notified of funding in July 2009. Revised federal standards have 	<p>date: 12/31/11</p>

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>been implemented into surveys. Initial surveys were conducted in August and September 2009. Additional surveys have been conducted and are continuing for federal FY 2010 (12/28/09). COMPLETED</p> <p>3. The Division of Acute Care and Division of Long Term Care will review and implement any revised infection control standards for licensed and certified health care facilities and agencies adopted by CMS. Target date for completion is 12/31/11. Status: The only revised infection control standards issued so far are those for ambulatory surgery centers [12/28/09].</p>	
		11. Adopt integration and interoperability standards for HAI information systems and data sources		
X		a. 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>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Attain an integrated HAI information system to identify and prevent transmittable infections.</p> <p><i>Approach:</i> The ISDH intends to utilize and enhance its electronic syndromic surveillance system to improve the identification and prevention of transmittable infections.</p> <p><i>Implementation and Status:</i></p> <p>1. The State Planning Team will review the state</p>	Objective target date: 12/31/11

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			surveillance system to ensure incorporation and utilization of available infection control surveillance data from across healthcare settings. Target date for completion is 12/31/11. Status: Pending	
X		b. Promote definitional alignment and data element standardization needed to link HAI data across the nation.	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Attain state definitional and data standardization with national HAI data.</p> <p><i>Implementation and Status:</i></p> <p>1. The state planning team will collaborate with partners to develop a standard definition for an “outbreak” to promote standardization across the state and recommend appropriate definitions for use in the Initiative. Responsible party: State Epidemiology Resource Center. Target date for completion is 7/1/10. Status: Pending</p> <p>2. The collaborative team will integrate into the Initiative the adoption of integrated and interoperable standards by healthcare providers. Target date of 12/31/10. Status: Pending</p>	Objective target date: 12/31/10
		12. Enhance electronic reporting and information technology for healthcare facilities to reduce reporting burden and increase timeliness,		

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		efficiency, comprehensiveness, and reliability of the data		
	X	a. Report HAI data to the public	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Develop and provide HAI data to the public through state reports.</p> <p><i>Approach:</i> Transparency is an essential component of quality improvement. Indiana was a leader in the development of consumer reports on health care facilities and currently has six online consumer reports on health care provider types. Indiana's intent is to improve quality indicator data and consolidate into accessible reports.</p> <p><i>Implementation and Status:</i></p> <p>1. The State will integrate HAI reporting into the Indiana Medical Error Report and/or existing consumer reports on health care facilities and agencies. Target date for completion is 12/31/12. Status: Pending</p>	Objective target date: 12/31/12.
		13. Make available risk-adjusted HAI data that enables state agencies to make comparisons between hospitals		
	X	[as stated above]	[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]	Objective target date: 12/31/12

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p><i>Objective:</i> Develop and provide risk-adjusted HAI data to the public through state reports.</p> <p><i>Approach:</i> The State intends to adopt NHSN data which is risk-adjusted data.</p> <p><i>Implementation and Status:</i></p> <p>1. The State will integrate HAI reporting into the Indiana Medical Error Report and existing consumer reports on health care facilities and agencies. Target date for completion is 12/31/12. Status: Pending</p>	
		14. Enhance surveillance and detection of HAIs in nonhospital settings		
	X	[as stated above]	<p>[The CDC Grant did not provide funding to the ISDH for Section 2 activities. Completion of this activity is contingent on the availability of funding.]</p> <p><i>Objective:</i> Improve the surveillance and detection of HAIs in nursing homes, home health agencies, and hospice agencies.</p> <p><i>Approach:</i> The State intends to include hospitals, nursing homes, home health agencies, and hospice agencies in the Indiana Healthcare Associated Infection Initiative. The State may also include dialysis centers and ambulatory surgery centers.</p>	Objective target date: 12/31/09. COMPLETED.

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p><i>Implementation and Status:</i></p> <p>1. The State will invite representatives from provider associations of key health care providers, agencies, and clinics to participate on the Collaborative Team. Target date for completion is 12/31/09. Status: The ISDH invited and attained participation by representatives of hospitals, nursing homes, home health agencies, and hospice agencies on the Collaborative Team (11/20/09). COMPLETED</p> <p>2. The Collaborative Team will review the surveillance and detection system of HAI for nursing homes, home health agencies, and hospice agencies and identify available HAI data for those provider types. Target date for completion is 7/1/10. Status: Pending</p>	

Indiana Plan

Section 3: Prevention

State implementation of HHS Healthcare Infection Control Practices Advisory Committee (HICPAC) recommendations is a critical step towards the elimination of healthcare associated infections. CDC with HICPAC has developed evidence-based healthcare associated infection 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 have also served as the basis the Centers for Medicare and Medicaid Services (CMS) Surgical Care Improvement Project. These evidence-based recommendations have also been incorporated into Joint Commission standards for accreditation of U.S. hospitals and have been endorsed by the National Quality Forum.

Table 3: State planning for healthcare associated infection prevention activities

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		PLANNING LEVEL 1		
		1. Implement HICPAC recommendations.		
	X	a. Develop strategies for implementation of HICPAC recommendations for at least two prevention targets specified by the state multidisciplinary group.	<p><i>Objective:</i> Develop and implement a prevention plan for <i>Clostridium difficile</i> and catheter associated urinary tract infection.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will review current activities and resources related to preventing healthcare associated infections (HAI's) with a focus on <i>Clostridium difficile</i> infection (CDI) and Catheter Associated Urinary Tract Infection (CAUTI) and develop a comprehensive prevention plan for the two infection types. Some of the primary materials to be reviewed include:</p> <ul style="list-style-type: none"> • APIC Guide to the Elimination of <i>Clostridium difficile</i> in Healthcare Settings 	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<ul style="list-style-type: none"> • APIC Guide to the Elimination of CAUTIs • Compendium on HAI in Acute Care Hospitals by SHEA and ISDA • IHI resources for CAUTI and other infection materials from the Campaign, • Existing ISDH web Resource Manual for CDI • QIO and CMS resources <p>Key findings from these resources will be integrated to develop the key principles and improvement targets for the collaborative. Target date for completion is 8/1/10. Status: Pending</p> <p>2. The Collaborative Team will review resources and develop a prevention plan to support initiatives directed at the other four types of healthcare associated infections and where possible integrate into the Indiana Healthcare Associated Infection Initiative. Target date for completion is 8/1/10. Status: Pending</p> <p>3. The State will add HAI prevention resources included in the Indiana Healthcare Associated Infection Initiative on the ISDH website. Included in materials will be a CDI Resource Guide and CAUTI Resource Guide. Target date for completion is 12/31/10. Status: The ISDH developed and published online the Indiana Healthcare Associated Infection Initiative Resource Center (12/21/09).</p>	
		2. Establish prevention working group under the state HAI advisory council to coordinate		

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		state HAI collaboratives		
	X	<p>a. Assemble expertise to consult, advise, and coach inpatient healthcare facilities involved in HAI prevention collaboratives</p>	<p><i>Objective:</i> Establish the Indiana Healthcare Associated Infection Initiative to coordinate the state collaborative initiative.</p> <p><i>Approach:</i> The Initiative will be designed using the successful Indiana Pressure Ulcer Initiative collaborative model which was based on the Institute for Healthcare Quality Improvement Model. The Initiative will include at least 80 health care providers to include hospitals, nursing homes, home health agencies, hospice agencies and perhaps other provider types. The Collaborative Team will incorporate lessons learned and success stories from previous statewide collaborative initiatives to enhance rapid cycle improvement and collaboration among providers.</p> <p>The Indiana Healthcare Associated Infection Initiative intends to provide support to participating facilities and agencies in the implementation of prevention systems through infection control experts and quality improvement facilitators.</p> <p><i>Implementation and Status:</i></p> <p>1. The State will establish a HAI Collaborative Team and Planning Teams to provide input and support to the implementation of the Indiana Healthcare Associated Infection Initiative. The Collaborative Team will encourage providers to link with other public health efforts and create a sense of urgency related to HAI prevention. The Collaborative Team will encourage</p>	Objective target date: 12/31/11

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>facilitation of a public health approach in the continuum of care. Target date for completion is 12/31/09. Status: The Collaborative Team was formed in November 2009 and conducted initial meetings on 11/20/09 and 12/20/09. Monthly meetings are scheduled for 2010 and 2011. COMPLETED</p> <p>2. Physicians, infectious disease specialists, infection preventionists, frontline caregivers, and patients/residents and families will be included as part of the Collaborative Team and/or individual work groups to assist in the development and implementation of the Initiative. Target date for completion is 7/1/10. Status: The State has identified potential physicians and infection control specialists for inclusion in the Initiative and is planning for a physician team (12/20/09).</p> <p>3. The collaborative team will identify needs for educational and training resources for healthcare associated infection prevention programs. The team will review existing or prior initiatives (including the national Stop BSI Collaborative, Indianapolis MRSA Collaborative, and QIO MRSA Collaborative) for possible inclusion and/or expansion. The team will review existing resources such as the MRSA and CDI resource manuals that exist on the ISDH web site for potential use in the Initiative. Target date for completion is 7/1/10. Status: The Collaborative Team discussed potential education and training needs at its first two meetings. The State has identified several resources and</p>	

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>included on the Indiana HAI Resource Center (12/21/09).</p> <p>4. The Collaborative Team will develop a collaborative toolkit that provides essential infection prevention resources. The team will identify or develop online learning modules and educational resources that integrate evidence-based resources from infection control experts. The State will make online education modules available on the ISDH website to collaborative and non-collaborative participants as well as to consumers. Resources will be developed throughout the Initiative for each learning session and other events. Target date for completion is 8/1/11. Status: Pending</p> <p>5. An Initiative planning group will be implemented to identify and implement a care coordination program to facilitate transitions between providers. Target date for completion is 7/1/10. Status: Pending</p> <p>6. The Collaborative Team will identify individuals with content and/or process expertise to serve as Initiative faculty and facilitators. Individuals will be identified throughout the Initiative as needed. Target date for completion is 8/1/11. Status: Possible speakers for the March 2010 Leadership Conference were identified (12/10/09).</p> <p>7. The Collaborative Team will design collaborative activities to focus on CDI and CAUTI across all settings</p>	

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>of care to include a resource list to guide facilities for all HAI areas. Resources will be developed throughout the Initiative for each learning session and other events. Target date for completion is 8/1/11. Status: Pending</p> <p>8. The Initiative will include coaching teleconferences and resources to support participating facilities in implementing system-based improvements. Target date for completion is 9/1/11. Status: Pending</p> <p>9. The Initiative will be designed to foster consumer engagement in infection prevention activities. Consumers will be asked to participate in collaborative development to ensure a patient-centered focus and provide input on development of consumer materials. Target date for completion is 7/1/10. Status: Pending</p> <p>10. The Initiative will include an awareness campaign for frontline workers, patients, residents, and families to include consideration of standardization of infection prevention signage. Target date for completion is 12/31/10. Status: Pending</p>	
		<p>3. Establish HAI collaborative with at least ten (10) hospitals (i.e. this may require a multi-state or regional collaborative in low population density regions)</p>		

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
	X	a. Identify staff trained in project coordination, infection control, and collaborative coordination	<p><i>Objective:</i> [See also Part 6a below] Develop and implement an Indiana Healthcare Associated Infection Initiative to include at least thirty (30) Indiana hospitals with each hospital team including administration, infection control staff, nursing staff, frontline support staff, and ancillary staff.</p> <p><i>Approach:</i> Health care facility and agency participation in the Indiana Healthcare Associated Infection Initiative Prevention Collaborative will be voluntary. The State hopes to have a broad range of participants – from those providers new to collaborative quality improvement programs to those with successful experience in such programs. The State may encourage specific facilities or agencies to participate based on survey history. The Collaborative Team will involve provider associations (hospital, long term care, home health care, hospice, and dialysis), Health Care Excel (Indiana’s quality improvement organization), and Indiana APIC in encouraging Initiative participation and providing project support.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will recruit Indiana hospitals for participation in the Initiative. Recruitment will begin with the ISDH Leadership Conference on March 2, 2009 with the participants to be identified by July 1, 2009.</p> <p>Status: Pending</p>	Objective target date: 07/01/10
	X	b. Develop a communication strategy to	<i>Objective:</i> Promote evidence-based best practices	Objective target

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		facilitate peer-to-peer learning and sharing of best practices	<p>through educational programs.</p> <p><i>Approach:</i> The collaborative design will include at least two learning sessions in each of three state regions to include didactic presentations on evidence-based infection prevention recommendations and best practices. Participant team members will be encouraged to develop participation teams to include frontline caregivers, quality improvement professionals, administration leaders, support departments, and infection preventionists.</p> <p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> 1. The Initiative will include two (and likely three) learning sessions per region with approximately 25 participating facilities and agencies at each regional session. Each session will include all provider types and include discussion of best practices for an improved infection control system. Target date for completion is 11/1/11. Tentative schedule includes: <ul style="list-style-type: none"> A. Learning session 1- September 2010 B. Learning session 2 – March 2011 C. Learning session 3 – September 2011 Status: Pending 2. The ISDH Health Care Quality and Regulatory Commission will hold a one-day Leadership Conference on healthcare associated infections to serve as a kick-off to the Indiana Healthcare Associated Infection Initiative and provide best practices to participating facilities and agencies. All nursing homes, hospitals, and state 	date: 11/1/11

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>surveyors will be invited to attend along with home health agencies participating in the prevention Initiative. Status: The Leadership Conference is scheduled to March 2, 2010 at the Indiana Convention Center in Indianapolis [12/10/09].</p> <p>3. All participants will include reductions of <i>Clostridium difficile</i> and catheter associated urinary tract infections as part of their individual targets. Individual participants may also select other HAI to target. Target date for participants to select targets is 10/1/10. Status: Pending</p>	
X		c. Establish and adhere to feedback of a clear and standardized outcome data to track progress	<p><i>Objective:</i> Adopt standardized outcome data to be used by both participants and the state to track progress of the Initiative.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will develop and implement a tracking system based on standardized outcome data. Target date for completion is 1/1/11. Status: Pending</p>	Objective target date: 1/1/11.
		4. Develop state HAI prevention training competencies		
X		a. Consider establishing requirements for education and training of healthcare professionals in HAI prevention (e.g., certification requirements, public education campaigns and targeted	<p><i>Objective:</i> Improve education and training of healthcare professionals and patients/residents in HAI prevention.</p> <p><i>Implementation and Status:</i></p>	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		<p>provider education) or work with healthcare partners to establish best practices for training and certification</p>	<p>1. The Collaborative Team will review education and training standards related to HAI for health care professionals and staff and make recommendations for improvements. Target date for completion is 12/31/10. Status: Pending</p> <p>2. The Collaborative Team will review existing certification programs (to include Certification Board for Infection Control and NHSN Data Collection Certification) and make recommendations as to the appropriateness for inclusion in the Initiative and, if appropriate, recommend how certification could be implemented as part of an improved HAI education program. Target date for completion is 12/31/10. Status: Pending</p> <p>3. The Collaborative Team will identify barriers to proper hand washing and effective interventions in breaking down those barriers. Review standards related to hand washing. Implement education and training components within the Initiative to address hand washing. Target date for completion is 8/1/10. Status: Pending</p>	
		LEVEL 2		
		5. Implement strategies for compliance to promote adherence to HICPAC recommendations		
	X	a. Consider developing statutory or regulatory standards for healthcare	<i>Objective:</i> Enhance regulatory standards for healthcare infection control and prevention.	Objective target date: 12/31/11

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		<p>infection control and prevention or work with healthcare partners to establish best practices to ensure adherence</p>	<p><i>Approach:</i> In developing the Indiana Medical Error Reporting System in 2005, Indiana was the second state to adopt National Quality Forum Adverse Event Standards. Indiana adopted mandatory reporting of adverse events through the state licensing system. This model emphasized the importance of transparency and has resulting in increased awareness and program development related to patient safety. The State plans to incorporate healthcare associated infections as a component of the Indiana Medical Error Reporting System.</p> <p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> 1. The ISDH will review its rules to identify ways to improve standards relating to healthcare associated infections. Target date for completion is 7/1/10. Status: Pending 2. The ISDH Division of Acute Care will implement 2009 revisions to the federal ambulatory surgery center regulations related to infection control. Status: Revised federal regulations and guidance was implemented in July 2009 and surveys conducted under the new guidance beginning in August 2009. COMPLETED 3. As new infection control regulations or guidance is adopted, the Divisions of Acute Care and Long Term Care will incorporate the revised standards into the licensing and certification survey process. Target date 	

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			for completion is 12/31/11. Status: Pending	
X		b. Coordinate/liaise with regulation and oversight activities such as inpatient or outpatient facility licensing/accrediting bodies and professional licensing organizations to prevent HAIs	<p>[See also Section 2, Part 10]</p> <p><i>Objective:</i> Improve collaboration between licensing and certification programs and epidemiology programs to improve infection control practices.</p> <p><i>Approach:</i> Indiana is one of two states where the state survey and certification program is serving as the Project Director for the State HAI Initiative. Indiana has successfully used this model to improve health care quality through initiatives such as its statewide pressure ulcer initiative. The Indiana Healthcare Associated Infection Initiative has expanded this model by including on the State Team representatives from survey and certification, epidemiology, preparedness, and state laboratory divisions to foster improved coordination.</p> <p><i>Implementation and Status:</i></p> <p>1. The State Planning Team will review Initiative activities with state licensing or accreditation requirements and state programs. Target date for completion is ongoing. Status: Pending.</p>	Objective target date: Ongoing
	X	c. Improve regulatory oversight of hospitals, enhancing surveyor training and tools, and adding sources and uses of infection control data	<p><i>Objective:</i> Improve surveyor training and resources on infection control.</p> <p><i>Approach:</i> Indiana's intent is to improve regulatory</p>	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>oversight of all health care facility licensing programs related to infection control.</p> <p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> 1. The ISDH Division of Health Care Education and Quality will implement training on infection control guidelines for all state surveyors. Target date for completion is 12/31/10. Status: Pending 2. A few state surveyors representing a variety of licensing programs will participate in all Initiative activities. Target date for selection is 7/1/10. Status: Pending 3. A state surveyor will be included as part of the Collaborative Team. Target date for completion is 12/31/09. Status: Karen Powers has been included on the Collaborative Team as a surveyor representative (12/10/09). COMPLETED 	
	X	d. Consider expanding regulation and oversight activities to currently unregulated settings where healthcare is delivered or work with healthcare partners to establish best practices to ensure adherence	<p><i>Objective:</i> Provide infection control prevention resources to all Indiana health care providers.</p> <p><i>Approach:</i> The ISDH currently serves as the state survey agency for approximately 35 health care licensing and/or certification and/or survey programs. The main unregulated settings applicable to infection control are medical clinics and offices. Expanding regulation and oversight activities to currently</p>	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>unregulated settings would require state legislation. It is unlikely that state legislation would occur during this Initiative. Indiana’s approach will be to make Initiative resources available to all health care providers.</p> <p><i>Implementation and Status:</i></p> <p>1. Make education and training resources available to Indiana health care providers through the online ISDH Health Care Quality Resource Center located on the department’s Web site. Status: The Healthcare Associated Infections Resource Center was added to the ISDH Web site on 12/21/09 and is accessible to all providers. Resources are being added as they are created (12/21/09). COMPLETED</p> <p>2. The Collaborative Team will review and make recommendations as to disseminating information about the Initiative to non-licensed health care entities. Target date for completion is 12/31/10. Status: Pending</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)		
	X	[as stated above]	<i>Objective:</i> [Same as Section 3, Part 3a] Develop and implement an Indiana Healthcare Associated Infection Initiative to include at least thirty	Objective target date: 7/1/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>(30) Indiana hospitals with each hospital team including administration, infection control staff, nursing staff, frontline support staff, and ancillary staff.</p> <p><i>Approach:</i> Participation in the Indiana Healthcare Associated Infection Initiative Prevention Collaborative will be voluntary. The State hopes to have a broad range of participants – from those providers new to collaborative quality improvement programs to those with successful experience in such programs. The State may encourage specific facilities or agencies to participate based on survey history. The Collaborative Team will involve provider associations of participating entities (hospital, long term care, home health care, hospice, and dialysis), Health Care Excel (Indiana’s quality improvement organization), and Indiana APIC in encouraging Initiative participation and providing project support.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will recruit Indiana hospitals for participation in the Initiative. Recruitment will begin with the ISDH Leadership Conference on March 2, 2009 with the participants to be identified by July 1, 2009. Target date for completion is 7/1/10. Status: Pending</p>	
		7. Establish collaborative to prevent HAIs in nonhospital settings (e.g., long term care, dialysis)		

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
	X	[as stated above]	<p><i>Objective:</i> Develop and implement an Indiana Healthcare Associated Infection Initiative to include at least fifty (50) non-hospital providers with each provider team including administration, infection control staff, nursing staff, frontline support staff, and ancillary staff from that provider. Providers included besides hospitals will include nursing homes and home health agencies.</p> <p><i>Approach:</i> Indiana intends to include multiple provider types in the Initiative. The Indiana Pressure Ulcer Initiative successfully utilized this approach in a 15-month initiative reducing pressure ulcers that involved 161 health care facilities and agencies. Indiana believes that a multidisciplinary approach is a key to quality improvement by providing improved care coordination between providers.</p> <p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> 1. The Collaborative Team will plan the Initiative to include hospitals, nursing homes (comprehensive care facilities), and home health agencies. If possible, the Initiative will also include hospice agencies, dialysis centers, and ambulatory surgical centers. Target date for completion is 7/1/10. Status: Pending 2. The Collaborative Team will recruit Indiana nursing homes, home health agencies, and hospice agencies for participation in the Initiative. Recruitment will begin with the ISDH Leadership Conference on March 2, 2009 with the participants to be identified by July 1, 2009. Target date for completion is 7/1/10. 	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Approach, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>Status: Pending</p> <p>3. The Collaborative Team along with representatives from nursing home facilities will review and summarize applicable F441 Infection Control Interpretive Guidance regarding the management of CDI, as well as F315 Interpretive Guidance for urinary incontinence, urinary tract infections, and anchored catheters in nursing home facility settings. Target date for completion is 12/31/10.</p> <p>Status: Pending</p>	

Indiana Plan

Section 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 healthcare associated infections. Evaluation and communication allows for learning and ongoing improvement to occur. Routine, practical evaluations can inform strategies for the prevention and control of healthcare associated infections.

Table 4: State healthcare associated infection communication and evaluation planning

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		PLANNING LEVEL 1		
		1. Conduct needs assessment and/or evaluation of the state HAI program to learn how to increase impact		
	X	a. Establish evaluation activity to measure progress towards targets and	<p><i>Objective:</i> Provide an assessment and evaluation of the Indiana Healthcare Associated Infection Initiative to determine progress towards improvements and targets.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will convene a planning team focusing on evaluation of the Indiana HAI Initiative. The Evaluation Planning Team will include representatives from the ISDH, academic partners, hospitals, long term care, and home health, as well as representatives with content expertise in HAI (physician and nursing infectious disease specialists) and individuals with experience in the evaluation of public health initiatives and the accompanying data analysis and interpretation.</p>	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>Target date for completion is 7/1/10. Status: Pending</p> <p>2. Review current best practices in evaluation of HAI with an emphasis on CDI and CAUTI. These materials will include:</p> <ul style="list-style-type: none"> • Compendium of practice recommendations from SHEA and IDSA (with collaboration from APIC, Joint Commission and the AHA)—specifically the sections with recommendations about 1) implementing prevention and monitoring strategies and 2) performance measures • APIC Elimination Guides for CDI and CAUTIs • ISDH resources on CDI and CAUTI <p>Target date for completion is 7/1/10. Status: Pending</p> <p>3. Coordinate with other Planning Teams to develop the vision for a three-prong approach to evaluation of the ISDH Plan for HAI Prevention:</p> <ul style="list-style-type: none"> • <u>Knowledge</u> measures regarding evidence-based infection prevention techniques among healthcare workers and administrators • <u>Process</u> measures (pertinent changes in behavior) for internal and external reporting • <u>Outcome</u> measures for internal and external reporting <p>Target date for completion is 7/1/10. Status: Pending</p>	

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>4. Establish the following for the evaluation plan:</p> <ul style="list-style-type: none"> • CDI and CAUTI surveillance definitions • Selection of data collection tools for each prong and each care setting that are consistent with nationally recognized best practices for each care setting • Define the details of the dependent variables for data collection (i.e. — rate measures including numerators and denominators consistent with CDC definitions) • Identify other data that could impact HAI rates that needs to be considered <p>Target date for completion is 12/31/10. Status: Pending</p> <p>5. Assure that all members of the data collection and analysis team have necessary training (or certifications) to safely, accurately, and ethically perform their assigned research team functions. Target date for completion is 12/31/10. Status: Pending</p> <p>6. The Collaborative Team will establish specific, measureable, achievable, realistic and time sensitive (SMART) objectives for each prong of the evaluation plan and for each care setting in accordance with establish national standards. Target date for completion is 12/31/10. Status: Pending</p> <p>7. Develop and incorporate provider setting specific needs-based self assessment and staff knowledge pre-</p>	

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>and post-collaborative activities. A comparison of the pre- and post- self-assessments and staff knowledge surveys will be analyzed as part of the program evaluation. Target date for development of the self-assessment and staff knowledge assessments is 7/1/10. Status: Pending</p> <p>8. Establish specific data collection procedures and methods for data analyses including when data related tasks will be conducted and who is responsible for the data related task. Target date for completion is 12/31/10. Status: Pending</p> <p>9. The Collaborative Team will establish methods to assure confidentiality of data and procedures for data safety and monitoring. Target date for completion is 12/31/10. Status: Pending</p> <p>10. The Project Coordinator will gain necessary Institutional Review Board approvals for the research aspects of the initiative. Target date for completion is 12/31/10. Status: Pending</p>	
X		b. Establish systems for refining approaches based on data gathered	<p><i>Objective:</i> Provide a system for adjusting and improving the Initiative based on assessment and evaluation data obtained during the course of the Initiative.</p> <p><i>Implementation and Status:</i></p> <p>1. The Collaborative Team will revise data collection tools and procedures as appropriate and establish final</p>	Objective target date: 12/31/11

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>evaluation plan for the Indiana HAI Initiative. Target date for completion is 12/31/11. Status: Pending</p> <p>2. The Collaborative Team will disseminate evaluation reports in consideration of SQUIRE guidelines to guide how the approach to the project and improve dissemination of the results. Target date for completion is 12/31/11. Status: Pending</p>	
		2. Develop and implement a communication plan about the state's HAI program and progress to meet public and private stakeholders needs		
	X	a. Disseminate state priorities for HAI prevention to healthcare organizations, professional provider organizations, governmental agencies, non-profit public health organizations, and the public	<p><i>Objective:</i> Make information about the Indiana Healthcare Associated Infection Initiative widely accessible.</p> <p><i>Implementation and Status:</i></p> <p>1. The Indiana Plan for the Prevention of Healthcare Associated Infections 2010 will be posted on the ISDH Healthcare Associated Infection Resource Center. The Indiana Plan will be updated throughout the Initiative to reflect outcomes and activities. The updated plans will be posted. Target date for posting of the Indiana Plan on the ISDH Web site is December 31, 3009. Status: The Indiana Plan was posted on 12/30/09.</p> <p>2. Make education and training resources available to</p>	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			<p>Indiana health care providers through the online ISDH Health Care Quality Resource Center located on the department's Web site. Target date for completion is 12/31/09.</p> <p>Status: The Indiana Healthcare Associated Infection Resource Center went online on 12/21/09. Resources are added to the site as they are completed (12/29/09). COMPLETED</p> <p>3. The ISDH will regularly publish information on the Initiative in an Indiana Healthcare Associated Infection Initiative Newsletter.</p> <p>Status: The ISDH has created a template for the electronic Indiana HAI Newsletter. The ISDH expects to begin the newsletter in early 2010 (12/14/09).</p> <p>4. The Project Coordinator will convene a working group focusing on a communication plan for the Indiana HAI Initiative and the activities of the initiative. Target date for completion is 10/1/10.</p> <p>Status: Pending</p> <p>5. The Project Coordinator will establish an internal communication strategy for the HAI Initiative to include meeting schedules, e-mail, teleconferences, and electronic file sharing. Target date for completion is 4/1/10.</p> <p>Status: Pending</p>	
		PLANNING LEVEL 2		
		3. Provide consumers access to useful		

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
		healthcare quality measures		
	X	[as stated above]	<p><i>Objective:</i> Provide consumers access to useful healthcare quality measures.</p> <p><i>Approach:</i> In the Indiana Pressure Ulcer Initiative, a Consumer Advisory Council was created to provide input on pressure ulcer education and training issues. The Council consisted of advocate organizations, residents, and family members. The Council was instrumental in the development of education materials for residents and families. Indiana plans to have a similar group to assist with healthcare associated infection education.</p> <p><i>Implementation and Status:</i></p> <ol style="list-style-type: none"> 1. The ISDH will explore the creation of a broader ongoing consumer advisory panel consisting of a wider range of patient and resident advocate groups and organizations to advise the State on health care quality issues. Target completion date is 12/31/10. Status: Pending 2. The Collaborative Team will create a Consumer Advisory Council to advise the Team on healthcare associated infection issues and create a mechanism for regular communication among the Consumer Advisory Council members, keeping them up-to-date on Collaborative activities and soliciting pertinent feedback and success stories. Target completion date is 10/1/10. Status: Pending 3. The Collaborative Team will establish a link with the 	Objective target date: 12/31/10

Check Items Planned	Check Items Underway	Indiana Plan	Indiana Objectives, Implementation, Responsible Individuals, and Status	Target Dates for Implementation
			existing patient safety coalitions to improve dissemination of health care quality information. Target completion date is 12/31/10. Status: Pending	
		PLANNING LEVEL 3		
		4. Identify priorities and provide input to partners to help guide patient safety initiatives and research aimed at reducing HAIs		
X		[as stated above]	<p><i>Objective:</i> Provide for a continuing state plan directed at reducing healthcare associated infections.</p> <p><i>Implementation and Status:</i></p> <p>1. The ISDH will review the Indiana Plan for the Prevention of Healthcare Associated Infections 2010 and establish continuing priorities for the prevention of healthcare associated infections. Target date for completion is 12/31/11. Status: Pending</p>	Objective target date: 12/31/11