

2011 West Virginia Healthcare Associated Infection Prevention Plan

West Virginia Healthcare Associated Infection Advisory Group Membership

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West Virginia Healthcare Associated Infections (HAI) Plan

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

Items Underway	Items Planned	Items Planned for Implementation (or currently underway)	Target Dates
X	X	<ol style="list-style-type: none"> 1. Establish statewide HAI prevention leadership through the formation of multidisciplinary group or state HAI advisory council <ol style="list-style-type: none"> i. 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)) ii. Identify specific HAI prevention targets consistent with HHS priorities 	<p>Ongoing</p> <p>To be determined.</p>
<p>Status and Narrative Plan: The state of West Virginia has identified members of a state HAI Advisory Group. The stated responsibilities of the HAI advisory group are:</p> <ol style="list-style-type: none"> 1. Offer input into the state HAI plan for West Virginia. 2. Advise on selection of HAI prevention targets most relevant to our state. 3. Primarily represent the interests of patients and families throughout the state. 4. Secondly, represent the interests of relevant professional and trade organizations. 5. Communicate about the planning process with stakeholders of member organizations. 6. Advise on appropriate prevention goals and objectives for statewide planning. 7. Advise on appropriate evidence-based interventions to prevent and control HAIs. <p>Over time, as issues related to healthcare associated infections change, membership of the multidisciplinary group will also change. On an annual basis, membership will be reviewed and updated in collaboration with the multidisciplinary group and the current membership list will be posted (www.wvidep.org) with this plan. The old plan and old list will be archived at that website. For some issues, planning may be conducted by subcommittees of this group.</p> <p>The West Virginia Health Care Authority (West Virginia HCA) has implemented its legal mandate (See:</p>			

<http://www.hcawv.org/Infect/InfectHome.htm>) to collect healthcare associated infections data through the National Healthcare Safety Network (NHSN). West Virginia HCA carries out its mission with the advice of an Infection Control Advisory Panel (ICAP) (See: <http://www.hcawv.org/Infect/PanelListing.pdf>) The composition of this panel is specified in state code and the panel must participate in decisions regarding collection of hospital data for public reporting. Effective July 1, 2009, hospitals were required to report central line associated bloodstream infections (CLABSI) data through NHSN. Also beginning in 2009, hospitals were required to report aggregate information on seasonal healthcare worker influenza immunization to West Virginia HCA. Under state law, this data will eventually be made public in a process to be determined by West Virginia HCA with guidance from the ICAP.

The choice of HAI prevention targets presupposes that data will be collected to measure progress towards national 5-year prevention targets. A second target will be recommended to the West Virginia Health Care Authority after needs assessment is complete and after considering targets to be selected by the Centers for Medicare and Medicaid Services as they mandate further surveillance through NHSN.

Objective 1.1: On at least an annual basis, the West Virginia Bureau for Public Health will evaluate membership of the HAI Advisory Group so that membership can appropriately address existing and emerging HAIs.

Date Due	1.1 Evaluation Measure	Person Responsible
December 31, annually	Membership list is posted in the State HAI Plan at www.wvidep.org	Thein Shwe, MPH, MS, State HAI Coordinator; with input from the state HAI Advisory Group, Bureau for Public Health

Objective 1.2: By December 31, 2011, the Advisory Group shall recommend two HAI prevention targets among those specified in the Health and Human Resources plan and document the choice in the West Virginia HAI plan.

Date Due	1.2 Evaluation Measure	Person Responsible
December 31, 2011	This plan is updated with the choice of two HAI prevention targets	HAI Coordinator Advisory Group

Items Underway	Items Planned	Items Planned for Implementation (or currently underway)	Target Dates
X		2. Establish an HAI surveillance prevention and control program	
	X	<ul style="list-style-type: none"> i. Designate a State HAI Prevention Coordinator ii. 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>Achieved</p> <p>ongoing</p>

Status and Narrative Plan: Thein Shwe began work as the State HAI Coordinator on December 1, 2010. The position is currently funded with federal stimulus dollars.

It is not known how many staff will eventually be required to fully support the state HAI plan and implementation. Staffing needs should be assessed on an ongoing basis according to goals, objectives and progress. As staffing needs are identified, funding may be sought through grant opportunities and/or state appropriations.

Objective 1.3. On an ongoing basis, the Bureau for Public Health shall maintain the State HAI Prevention Coordinator position.

Date Due	1.3 Evaluation Measure	Person Responsible
Ongoing	State HAI Coordinator is employed by BPH	Loretta Haddy, State Epidemiologist Danae Bixler, Director, Infectious Disease Epidemiology Bureau for Public Health

Objective 1.4: By December 31, 2011, the State HAI Coordinator shall be transferred to a long-term source of funding.

Date Due	1.4 Evaluation Measure	Person Responsible
December 31, 2011	State HAI Coordinator is employed by BPH	Loretta Haddy, State Epidemiologist Bureau for Public Health

Objective 1.5: On an annual basis by July 1, staffing needs shall be assessed by the HAI Coordinator and the Director of the Division of Infectious Disease Epidemiology. Staffing needs shall be noted in this plan by December 31.

Date Due	1.5 Evaluation Measure	Person Responsible
December 31, annually	Assessment of staffing needs completed and noted in this plan.	Director of Infectious Disease Epidemiology, Healthcare Associated Infections Coordinator Bureau for Public Health

Items Underway	Items Planned	Items Planned for Implementation (or currently underway)	Target Dates
	X	3. Integrate laboratory activities with HAI surveillance, prevention and control efforts. <ul style="list-style-type: none"> i. Improve laboratory capacity to confirm emerging resistance in HAI pathogens and perform typing where appropriate (e.g., outbreak investigation support, HL7 messaging of laboratory results) 	To be determined
<p>Status and Narrative Plan: West Virginia has no capacity at the Office of Laboratory Services for assessing resistance in HAI pathogens or performing typing where appropriate. Given significant resource and personnel constraints, planning towards</p>			

additional laboratory capacity will be deferred until 2012. To respond to this item appropriately, further assessment and planning is needed. Stakeholders to participate in planning should include representatives from the Office of Laboratory Services, university microbiology departments, Association of Professionals in Infection Control, and hospital epidemiologists. Stakeholders will be designated to serve on a laboratory infrastructure subcommittee of the Advisory Group. The subcommittee will identify needed laboratory services and formulate a plan to offer those services. Planning should ideally be completed by July 1, 2013 so that requests for state appropriations can be submitted on the typical August timeline. Elements of the plan will then be incorporated into this HAI plan by December 31, 2013.

Objective 1.6: By December 31, 2012, the HAI Coordinator shall have convened a subcommittee of stakeholders to plan for laboratory infrastructure, including representatives from West Virginia Association of Professionals in Infection Control, Society for Healthcare Epidemiology of America, university-based laboratory professionals and the Division of Infectious Disease Epidemiology.

Date Due	1.6 Evaluation Measure	Person Responsible
December 31, 2012	Stakeholders are convened to plan for laboratory infrastructure, as documented in this plan.	HAI Coordinator

Objective 1.7: By December 31, 2013, the HAI Coordinator shall have developed a plan for laboratory support for healthcare associated infections and incorporated elements of the laboratory plan into this plan.

Date Due	1.7 Evaluation Measure	Person Responsible
December 31, 2013	This HAI plan addresses the state laboratory plan	HAI Coordinator

Items Underway	Items Planned	Items Planned for Implementation (or currently underway)	Target Dates
	X	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)	December 31, 2011

<p>Status and Narrative Plan: Effective with hire of the HAI Coordinator, DIDE has initiated contact with representatives of the Office of Health Facility Licensure and Certification, the Board of Medicine (covers physicians and podiatrists), the Board of Osteopathy, the Board of Dental Examiners, Board of Pharmacy, and the Board of Examiners for Registered Professional Nurses to formulate an agreement for coordination of outbreak investigations and infection control breaches. As the scope of HAI prevention activities expands, so should the membership of the group and the scope of responsibilities of this group. Any changes shall be documented in this plan.</p> <p>Objective 1.8: By December 31, 2011, agencies involved in healthcare associated infection outbreaks shall have met and documented roles, responsibilities and parameters for sharing information.</p>								
<table border="1"> <thead> <tr> <th>Date Due</th> <th>1.8 Evaluation Measure</th> <th>Person Responsible</th> </tr> </thead> <tbody> <tr> <td>December 31, 2011</td> <td>Written agreement exists for roles and responsibilities and communication between Division of Infectious Disease Epidemiology, Office of Health Facility Licensure and Certification, and the medical, osteopathic, dental, pharmacy and nursing licensing boards.</td> <td>HAI Coordinator Bureau for Public Health</td> </tr> </tbody> </table>	Date Due	1.8 Evaluation Measure	Person Responsible	December 31, 2011	Written agreement exists for roles and responsibilities and communication between Division of Infectious Disease Epidemiology, Office of Health Facility Licensure and Certification, and the medical, osteopathic, dental, pharmacy and nursing licensing boards.	HAI Coordinator Bureau for Public Health		
Date Due	1.8 Evaluation Measure	Person Responsible						
December 31, 2011	Written agreement exists for roles and responsibilities and communication between Division of Infectious Disease Epidemiology, Office of Health Facility Licensure and Certification, and the medical, osteopathic, dental, pharmacy and nursing licensing boards.	HAI Coordinator Bureau for Public Health						

Items Underway	Items Planned	Items Planned for Implementation (or currently underway)	Target Dates
<input type="checkbox"/>	<input type="checkbox"/>	5. Facilitate use of standards-based formats (e.g., Clinical Document Architecture, electronic messages) by healthcare facilities for purposes of electronic reporting of HAI 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	To be determined

		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.	
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Status and Narrative Plan: Consensus opinion of the Advisory Group is that this is an extremely important activity for maximizing efficiency of personnel resources in hospitals; however West Virginia does not have enough infrastructure in place to initiate planning towards this activity at this time. This issue will be revisited on an annual basis to determine if planning can proceed.

Objective 1.9: On an annual basis by December 31, the HAI Coordinator and the Advisory Group shall re-evaluate feasibility of planning towards electronic reporting.

Date Due	1.9 Evaluation Measure	Person Responsible
December 31, annually	Feasibility of planning toward electronic reporting is addressed in the State HAI plan	HAI Coordinator Bureau for Public Health Advisory Group

2. Surveillance, Detection, Reporting, and Response

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

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	1. Improve HAI outbreak detection and investigation	
	X	i. Work with partners including CSTE, CDC, state legislatures, and providers across the healthcare continuum to improve outbreak reporting to state health departments	July 1, 2013
	X	ii. Establish protocols and provide training for health department staff to investigate outbreaks, clusters or unusual cases of HAIs.	July 1, 2013
	X	iii. Develop mechanisms to protect facility/provider/patient identity when investigating incidents and potential outbreaks during the initial evaluation phase where possible to promote reporting of outbreaks	July 1, 2013
	X	iv. Improve overall use of surveillance data to identify and prevent HAI outbreaks or transmission in HC settings (e.g., hepatitis B, hepatitis C, multi-drug resistant organisms (MDRO), and other reportable HAIs)	Ongoing

Status and Narrative Plan: West Virginia's reportable disease rule requires reporting of community outbreaks immediately. While reporting of healthcare associated outbreaks is not explicitly required, nursing home outbreaks are frequently reported to Infectious Disease Epidemiology. State epidemiologists have limited experience and training in investigation of healthcare associated infections. In addition, increased numbers of outbreaks reported clearly requires increased staffing.

It is likely these challenges can be overcome if adequate staffing and training can be secured. West Virginia plans a staged approach to building infrastructure. During 2011, ongoing efforts to train all staff who conduct outbreak investigations will continue. In 2011, 3 staff will complete the Society of Healthcare Epidemiology of America (SHEA) training, and multiple staff will complete the Association for periOperative Registered Nurses (AORN) Ambulatory Surgery Center Infection Prevention course online. Negotiations are underway

with Charleston Area Medical Center (CAMC) to ‘embed’ epidemiologists at CAMC for a one-month rotation to learn more about infection control. Epidemiologists who have completed some previous infection control training will be permitted to participate in this rotation.

Existing protocols for hepatitis B and C infection will be modified to emphasize detection of healthcare associated hepatitis B and C. Guidelines for investigation of healthcare associated hepatitis B and C have been posted to www.wvidep.org. As part of this planning effort, capacity for outbreak support will be evaluated at the West Virginia Office of Laboratory Services. See objectives 1.6 and 1.7.

During 2012, planning for revision of the reportable disease rule to include healthcare associated outbreaks in the list of reportable conditions will begin. Proposed rule changes must usually be submitted internally by June 15 of each year for submission to the state legislature by January of the following year. Proposed language will be drafted in the early part of 2012 and submitted for public comment according to the usual state deadlines. If passed by the state legislature, the provision would become law in 2013. Language in the rule to protect confidentiality is already quite strong. The Advisory Group will be consulted about additional confidentiality provisions.

As this process unfolds, outbreaks will continue to be recorded in the annual outbreak report posted at:

<http://www.wvidep.org/AZIndexofInfectiousDiseases/OutbreaksorClustersofAnyIllness/tabid/1535/Default.aspx> Effective with the 2009 report, healthcare associated outbreaks have been specifically tracked to document changes in reporting of healthcare associated outbreaks.

Objective 2.1: On an ongoing basis, all existing and newly hired epidemiology and nursing staff in DIDE shall receive training in infection control; and designated staff shall represent DIDE at the annual national SHEA and APIC conferences.

Date Due	2.1 Evaluation Measures	Person Responsible
Annually by December 31,	<ul style="list-style-type: none"> • Additional DIDE nurses and epidemiologists shall have completed infection control training • Selected epidemiology and/or nursing staff have attended local and national APIC and national SHEA meetings. • Epidemiologists are ‘embedded’ at CAMC for training in hospital epidemiology. 	Loretta Haddy, State Epidemiologist Danae Bixler, Director, Infectious Disease Epidemiology Bureau for Public Health

Objective 2.2: By December 31, 2010, the hepatitis B and hepatitis C protocols and investigation forms shall have been revised to emphasize detection of possible healthcare associated transmission of these bloodborne pathogens.

Date Due	2.2 Evaluation Measures	Person Responsible
December 31, 2011	Hepatitis C protocol and investigation forms are revised with guidelines for detection of healthcare associated infection and posted at: www.wvidep.org	Maria del Rosario, Infectious Disease Epidemiology Bureau for Public Health
	Hepatitis B protocol and investigation forms are revised with guidance for detection of healthcare associated infection and posted at: www.wvidep.org	Loretta Haddy, State Epidemiologist Bureau for Public Health

Objective 2.3: By June 15, 2012, the State Epidemiologist shall submit a proposed revision to the reportable disease rule, 64CSR7 requiring reporting of healthcare associated outbreaks, and specifying confidentiality protections for healthcare institutions during investigation.

Date Due	2.3 Evaluation Measure	Person Responsible
June 15, 2012	Proposed revision to 64CSR7 has been submitted to Legislative Services in the West Virginia Department of Health and Human Resources	Loretta Haddy, State Epidemiologist Bureau for Public Health

Objective 2.4: The annual outbreak report will continue to have a section on healthcare associated outbreaks.

Date Due	2.4 Evaluation Measure	Person Responsible
Annually by March 15 for the previous year	Outbreak summary contains a section on healthcare associated outbreaks	Sherif Ibrahim, MD, MPH, Regional Epidemiologist Liaison and Outbreak Epidemiologist Bureau for Public Health

Check Items	Check	Items Planned for Implementation (or currently underway)	Target Dates for
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Underway	Items Planned		Implementation
	X	2. Enhance laboratory capacity for state and local detection and response to new and emerging HAI issues.	To be determined; see objectives 1.6 and 1.7

See Objectives 1.6 and 1.7

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	3. Improve communication of HAI outbreaks and infection control breaches <ul style="list-style-type: none"> i. Develop standard reporting criteria including, number, size and type of HAI outbreak for health departments and CDC ii. Establish mechanisms or protocols for exchanging information about outbreaks or breaches among state and local governmental partners (e.g., State Survey agencies, Communicable Disease Control, state licensing boards) 	July 1, 2013
	X		See objectives 1.8 and 1.9

Status and Narrative Plan: West Virginia has disease investigation protocols, including an outbreak protocol posted at: <http://www.wvdep.org/WVReportableDiseaseManual/tabid/1435/Default.aspx> Healthcare associated outbreak reporting and investigation guidelines will be drafted by the HAI Coordinator and state epidemiology staff and then discussed with the Advisory Group or a subcommittee before finalizing.

Objective 2.5: By July 1, 2013, West Virginia shall include guidance for reporting and investigation of healthcare associated outbreaks as part of the reportable disease protocol manual.

Date Due	2.5 Evaluation Measure	Person Responsible
July 1, 2013	Outbreak protocol is posted at www.wvdep.org for healthcare associated outbreaks	HAI Coordinator Bureau for Public Health

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	X <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4. Identify at least 2 priority prevention targets for surveillance in support of the HHS HAI Action Plan <ul style="list-style-type: none"> i. Central Line-associated Bloodstream Infections (CLABSI) ii. <i>Clostridium difficile</i> Infections (CDI) iii. Catheter-associated Urinary Tract Infections (CAUTI) iv. Methicillin-resistant Staphylococcus aureus (MRSA) Infections v. Surgical Site Infections (SSI) vi. Ventilator-associated Pneumonia (VAP) 	To be determined July 1, 2009

Status and Narrative Plan: West Virginia law requires that hospitals submit healthcare associated infections to the West Virginia HCA. The data to be submitted are determined by the West Virginia Infection Control Advisory Panel. Since July 1, 2009, data on CLABSI in medical intensive care units, surgical intensive care units and medical-surgical intensive care units are reported through the National Healthcare Safety Network (NHSN). Under W. Va. Code §16-5F-1, the West Virginia HCA can collect data and make this data available to the public in a format to be determined by the Infection Control Advisory Panel (ICAP). Membership of the ICAP is specified by law and listed at <http://www.hcawv.org/Infect/PanelListing.pdf>. The Infection Control Advisory Panel is deliberating to determine the best process for releasing baseline CLABSI data. Effective January 1, 2011, Centers for Medicaid and Medicare Services (CMS) also mandated reporting of CLABSI data through NHSN.

Because CMS is also in the process of selecting a second HAI target, the Advisory Group and/or the Infection Control Advisory Panel will deliberate on a second target after CMS has made a final selection and after needs assessment has been completed. This will enable hospitals to focus on a few priority areas without becoming overwhelmed by data collection for multiple different agencies.

Objective 2.6: By December 31, 2011, the Infection Control Advisory Panel Advisory Group shall have identified a second priority prevention target for surveillance in support of the HHS HAI Action Plan.

Date Due	2.6 Evaluation Measure	Person Responsible
December 31, 2011	Two priority prevention targets are specified in this plan	Amy Wenmoth, Infection Control Advisory Panel

WV Health Care Authority

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
X		5. Adopt national standards for data and technology to track HAIs (e.g., NHSN).	
X		<ul style="list-style-type: none"> i. Develop metrics to measure progress towards national goals (align with targeted state goals). (See Appendix 1). ii. Establish baseline measurements for prevention targets 	To be determined

Status and Narrative Plan: It is the consensus of the Advisory Group that West Virginia shall use the National Healthcare Safety Network (NHSN) for tracking HAIs. West Virginia Health Care Authority (West Virginia HCA) has implemented surveillance for CLABSI with hospitals in West Virginia using the National Healthcare Safety Network (NHSN) to track the data. That data collection began on July 1, 2009.

Data collection has also been implemented for influenza immunization of healthcare workers in all hospitals in West Virginia during 2009. . During 2011, the Advisory Group will evaluate current reporting mandates and infection prevention needs. This will give hospitals and West Virginia HCA sufficient time to evaluate the personnel and training resources needed for expanded reporting.

Objective 2.7: By December 31, annually, the West Virginia HCA shall evaluate the feasibility of releasing baseline data on two HHS prevention targets.

Date Due	2.7 Evaluation Measure	Person Responsible
December 31, annually	Feasibility of reporting of baseline data is recorded in this plan	Amy Wenmoth West Virginia HCA

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
		6. Develop state surveillance training competencies	

	X	i. Conduct local training for appropriate use of surveillance systems (e.g., NHSN) including facility and group enrollment, data collection, management, and analysis	to be determined
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Status and Narrative Plan: Training needs will be evaluated during the needs assessment proposed for early 2011. The needs assessment shall include evaluation of data entered into NHSN by the West Virginia Health Care Authority. Based on this evaluation, a training plan for hospitals will be developed. See objectives 4.1 and 4.2.

Objective 2.8: Training for hospital staff using NHSN will be addressed in this plan by December 31, 2011.

Date Due	2.8 Evaluation Measure	Person Responsible
December 31, 2011	Training plan is included in this state HAI plan	HAI Coordinator Bureau for Public Health

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	7. Develop tailored reports of data analyses for state or region prepared by state personnel	To be determined. See objective 2.7

Status and Narrative Plan: CLABSI data is currently being collected in NHSN by hospitals in West Virginia. That data will be reviewed by the Infection Control Advisory Panel (ICAP) as the data is more and more complete. As required by state law, the panel will make recommendations to the West Virginia Health Care Authority to publish the data in an appropriate format when the data is ready for publication.

See Objective 2.7.

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input type="checkbox"/>	<input type="checkbox"/>	8. Validate data entered into HAI surveillance (e.g., through healthcare records review, parallel database comparison) to measure accuracy and reliability of HAI data collection	
<input type="checkbox"/>	<input type="checkbox"/>	i. Develop a validation plan	

<input type="checkbox"/>	<input type="checkbox"/>	ii. Pilot test validation methods in a sample of healthcare facilities	
<input type="checkbox"/>	<input type="checkbox"/>	iii. Modify validation plan and methods in accordance with findings from pilot project	
<input type="checkbox"/>	<input type="checkbox"/>	iv. Implement validation plan and methods in all healthcare facilities participating in HAI surveillance	
<input type="checkbox"/>	<input type="checkbox"/>	v. Analyze and report validation findings	
<input type="checkbox"/>	<input type="checkbox"/>	vi. Use validation findings to provide operational guidance for healthcare facilities that targets any data shortcomings detected	

Status and Narrative Plan: . West Virginia has requested a CSTE HAI fellow to conduct a pilot study to validate CLABSI data. If a fellow is assigned to West Virginia planning for data validation will begin in 2011.

Objective 2.9: By December 31, 2011, data validation plans will be addressed in this HAI plan.

Date Due	2.9 Evaluation Measure	Person Responsible
December 31, 2011	Data validation plans are addressed in this HAI plan.	HAI Coordinator

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
X		9. Develop preparedness plans for improved response to HAI <ul style="list-style-type: none"> i. Define processes and tiered response criteria to handle increased reports of serious infection control breaches (e.g., syringe reuse), suspect cases/clusters, and outbreaks 	December 31, 2010

Status and Narrative Plan: During 2009, West Virginia investigated two outbreaks in ambulatory care settings. Both outbreaks required notification of patients of possible exposure to blood-borne pathogens. As a result, West Virginia has accumulated examples of letters and websites used for patient notifications in a shared directory. In addition, West Virginia has adopted CDC guidelines for notification (see <http://www.wvidep.org/AZIndexofInfectiousDiseases/InfectionControl/tabid/1783/Default.aspx>)

Objective 2.10: On an ongoing basis, the HAI Coordinator shall update notification criteria for serious infection control breaches documented at www.wvidep.org.

Date Due	2.10 Evaluation Measure	Person Responsible
Ongoing	Notification criteria for serious infection control breaches are published to www.wvidep.org	HAI Coordinator Advisory Group

Objective 2.11 On an ongoing basis, , the HAI Coordinator shall maintain examples of notification letters and hotline scripts / FAQs from CDC and/or other states stored in a share directory for use by Infectious Disease Epidemiology staff.

Date Due	2.11 Evaluation Measure	Person Responsible
Ongoing	Updated sample notification letters and processes have been stored in a shared directory.	HAI Coordinator

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	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	To be determined

Status and Narrative Plan: As documented in objective 1.8, the HAI Coordinator will engage in discussions with the West Virginia medical, osteopathic, dental and nursing Boards during 2011. Based on findings from outbreak investigations during 2009, it is apparent that there is a need for infection control education targeted to ASC and other medical and dental practices where invasive procedures are performed. A subcommittee of the Advisory Group including Dr. Brooks Gainer, Terrie Lee, Maria del Rosario, Dr. Rahul Gupta, Sherif Ibrahim, and Thein Shwe met and determined that the best way to deliver this training is to bring the APIC infection control training for Ambulatory Surgical Centers to West Virginia. APIC can train up to 200 people during one two-day training. See objectives 3.7, 3.8 and 3.9.

Objective 2.12: By December 31, 2011, infection control training for Ambulatory Surgical Centers and similar staff will have been offered in West Virginia by APIC.

Date Due	2.12 Evaluation Measure	Person Responsible
December 31, 2011	APIC infection control training for ambulatory surgical centers staff has been offered in West Virginia.	HAI Coordinator

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input type="checkbox"/>	<input type="checkbox"/>	11. Adopt integration and interoperability standards for HAI information systems and data sources <ul style="list-style-type: none"> i. Improve overall use of surveillance data to identify and prevent HAI outbreaks or transmission in HC settings (e.g., hepatitis B, hepatitis C, multi-drug resistant organisms (MDRO), and other reportable HAIs) across the spectrum of inpatient and outpatient healthcare settings ii. Promote definitional alignment and data element standardization needed to link HAI data across the nation. 	
<input type="checkbox"/>	<input type="checkbox"/>		

Status and Narrative Plan: At this point, there is inadequate staffing to plan for this imperative. This important part of surveillance will be addressed as West Virginia infrastructure improves.

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	12. Enhance electronic reporting and information technology for healthcare facilities to reduce reporting burden and increase timeliness, efficiency, comprehensiveness, and reliability of the data <ul style="list-style-type: none"> i. Report HAI data to the public 	See Objective 1.9 See objective 2.7

See objectives 1.9 and 2.7.

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	13. Make available risk-adjusted HAI data that enables state agencies to make comparisons between hospitals.	See objective 2.7
See objective 2.7.			
Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input type="checkbox"/>	<input type="checkbox"/>	14. Enhance surveillance and detection of HAIs in nonhospital settings	
Status and Narrative Plan: At this point, there is inadequate staffing to plan for this imperative. This important part of surveillance will be addressed as West Virginia infrastructure improves.			

3. Prevention

Table 3: State planning for HAI prevention activities

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	1. Implement HICPAC recommendations. <ul style="list-style-type: none"> i. Develop strategies for implementation of HICPAC recommendations for at least 2 prevention targets specified by the state multidisciplinary group. 	To be determined
<p>Status and Narrative Plan: The HAI Coordinator Advisory Group has summarized SHEA/IDSA evidence-based prevention guidelines for CLABSI as a checklist, referencing Infection Control and Hospital Epidemiology, volume 29, Supplement 1 (2008). In collaboration with Jim Kranz of WV Hospital Association, a cover letter will be drafted for hospital CEO/COOs in West Virginia, asking them to commit to ongoing implementation of these guidelines in their facilities and to commit resources to implementation. The letter will reference the success of the Johns Hopkins University-led collaborative that involved 20 hospitals in the state. A carbon copy will be sent to the Chairman of the Board of the hospital. Hospital CEO/COOs will be asked to return a written statement signed by the Hospital CEO/COO, Chief of Staff and Infection Preventionist committing or renewing their commitment and the necessary resources for implementation of SHEA/IDSA recommendations throughout their facility. One purpose of the signed commitment is to encourage communication between the administration, the medical staff and the infection preventionists about implementation of SHEA/IDSA recommendations. Those hospitals that sign the letter of commitment will be acknowledged at www.wvidep.org.</p> <p>HAI coordinator will assemble background information on CLABSI prevention including tool kits, publications, information sheets, and other information for hospital infection preventionists. Information will be posted on the DIDE website and shared at APIC-WV meetings.</p> <p>During 2011, in anticipation of the need to train healthcare personnel in infection control, the West Virginia Bureau for Public Health will develop a staffing plan for a training program. It is anticipated that training in infection control will be needed for hospital personnel involved in implementation of SHEA/IDSA recommendations. The HAI Coordinator or training staff can collect implementation tools that have been successful in facilities across the country. Sharing these tools with West Virginia facilities will help hospitals understand the many options for operationalizing SHEA/IDSA guidelines. These tools could be shared through conference calls, West Virginia APIC chapter meetings or formal trainings. Other anticipated training needs include basic training for participants in prevention collaboratives, Office of</p>			

Health Facilities Licensure and Certification surveyors, long term care preventionists and physicians and office managers (see objective 2.12 and 3.7. 3.8, and 3.9).

During 2012, the training plan will be implemented, if funded by the West Virginia Department of Health and Human Resources and/or the West Virginia State Legislature.

Objective 3.1 By March 31, 2011, SHEA/IDSA guidelines, summarized as a checklist, will be disseminated to hospital CEOs in West Virginia.

Date Due	3.1 Evaluation Measure	Person Responsible
March 31, 2011	Hospital checklist and copy of hospital CEO letter is available at www.wvidep.org	HAI Coordinator, Advisory Group West Virginia Bureau for Public Health

Objective 3.2 by July 1, 2011 a list of hospitals committing resources to implementation of SHEA/IDSA guidelines will be posted on www.wvidep.org

Date Due	3.2 Evaluation Measure	Person Responsible
July 1, 2011	A list of hospitals committing resources to implementation of SHEA/IDSA guidelines will be posted at www.wvidep.org	HAI Coordinator Programmer Analyst I West Virginia Bureau for Public Health

Objective 3.3 By April 30, 2011, the HAI coordinator will have collected tool kits, information sheets, check lists, and other supporting tools for hospitals to use in CLABSI reduction and elimination.

Date Due	3.3. Evaluation Measure	Person Responsible
April 30, 2011	Tools for CLABSI reduction and elimination will be presented at 2 nd APIC-WV quarterly meeting and will be posted at DIDE website.	HAI coordinator

Objective 3.4: By August, 2011, a staffing plan for training shall be submitted through the West Virginia Department of Health and Human Resources (WVDHHR) chain of command requesting resources for infection control training in West Virginia.

Date Due	3.4 Evaluation Measure	Person Responsible
August 2011	Staffing plan submitted through chain of command, WVDHHR	HAI Coordinator West Virginia Bureau for Public Health

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	2. Establish prevention working group under the state HAI advisory council to coordinate state HAI collaboratives <ul style="list-style-type: none"> i. Assemble expertise to consult, advise, and coach inpatient healthcare facilities involved in HAI prevention collaboratives 	December 31, 2010

Status and Narrative Plan: West Virginia has several collaboratives ongoing. During the proposed needs assessment (see objective 4.1) the HAI coordinator will inventory existing prevention collaboratives and their needs. Based on results of needs assessment and direct outreach to collaboratives, a prevention working group may be assembled. Based on outbreak investigations, there is tremendous need for development of a long term care working group. The HAI Coordinator will develop a subcommittee jointly with West Virginia Healthcare Association and APIC-WV to address LTC issues. The purpose of the group will be to identify needs and develop training and other interventions to reduce HAIs in long term care.

Objective 3.5 By July 1, 2011, an assessment of prevention collaboratives and their needs shall be completed.

Date Due	3.5 Evaluation Measure	Person Responsible
July 1, 2011	Prevention collaborative needs assessment completed.	HIA Coordinator Advisory Group

Objective 3.6 By June 30, the HAI Coordinator shall have developed a long term care working group in collaboration with West Virginia Healthcare Association (WVHCA) and Association of Professionals in Infection Control – West Virginia (APIC-WV).

Date Due	3.6 Evaluation Measure	Person Responsible
June 30, 2011	A long term care working group exists	HIA Coordinator

	with defined membership and objectives	WVHCA APIC-WV
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Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	3. Establish HAI collaboratives with at least 10 hospitals (i.e. this may require a multi-state or regional collaborative in low population density regions)	
	X	i. Identify staff trained in project coordination, infection control, and collaborative coordination	To be determined
	X	ii. Develop a communication strategy to facilitate peer-to-peer learning and sharing of best practices	To be determined
	X	iii. Establish and adhere to feedback of a clear and standardized outcome data to track progress	To be determined

Status and Narrative Plan: There are already prevention collaboratives ongoing in West Virginia. West Virginia Medical Institute (WVMI) is collaborating with hospitals to reduce methicillin-resistant *Staphylococcus aureus* (MRSA) infections in hospitals in the state. Participating hospitals report MRSA to the National Healthcare Safety Network (NHSN) Multi-Drug Resistant Organism (MDRO) module. WVMI is working with these hospitals to make an impact by using the Institute for Healthcare Improvement's (IHI) recommended five components of care: hand hygiene, decontamination of the environment and equipment, active surveillance, contact precautions for infected and colonized patients and device bundles (central line and ventilator).

The West Virginia Hospital Association is also collaborating with 20 West Virginia hospitals in a Johns Hopkins University-led collaborative involving 35 states. The goal of this project is to reduce CLABSIs.

Before proposing strategies to expand on these efforts, it is important to understand what is already in place. HAI coordinator will outreach to existing collaboratives to determine the scope of their activities and their needs. Only after a full understanding of ongoing efforts can any reasonable planning be achieved.

Objective 3.7 By December 31, 2011, specific objectives for implementation/support of HAI collaboratives in West Virginia shall be documented in this plan at www.wvidep.org.

Date Due	3.7 Evaluation Measure	Person Responsible
December 31, 2011	Specific objectives for implementation/support of HAI collaboratives in West Virginia are listed in this plan at www.wvdep.org	HIA Coordinator Advisory Group West Virginia Bureau for Public Health

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	4. Develop state HAI prevention training competencies <ul style="list-style-type: none"> i. Consider establishing requirements for education and training of healthcare professionals in HAI prevention (e.g., certification requirements, public education campaigns and targeted provider education) or work with healthcare partners to establish best practices for training and certification 	To be determined.

Status and Narrative Plan: While extensive needs assessment is required before WVBPH designs training for hospital-based infection preventionists and prevention collaboratives, it is abundantly clear from outbreak investigations that there is a need for infection prevention training in the ambulatory care setting. Anticipating that the DIDE training coordinator position will be filled in the fall of 2011, DIDE will explore options to offer or arrange trainings for staff working in these settings. In the process of planning for this training, the HAI coordinator will outreach to and collaborate with APIC-WV, CAMC Health Education and Research and other professionals skilled at delivering continuing medical and nursing education. See Objective 2.12

Objective 3.8 : By December 31, 2011, additional training strategies shall be selected by the Advisory Group for implementation in West Virginia and plans for implementation shall be documented in this plan.

Date Due	3.8 Evaluation Measures	Person Responsible
December 31, 2011	Training strategies for priority groups	HAI Coordinator,

	shall be documented in this plan	Advisory Group Bureau for Public Health
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Objective 3.9: On an annual basis by December 31, training needs shall be re-evaluated through the needs assessment process and training objectives shall be updated in this plan.

Date Due	3.9 Evaluation Measures	Person Responsible
Annually by December 31	Updated training plan is documented in this plan	HAI Coordinator, Bureau for Public Health Advisory Group

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input type="checkbox"/>	X	5. Implement strategies for compliance to promote adherence to HICPAC recommendations	
	X	i. Consider developing statutory or regulatory standards for healthcare infection control and prevention or work with healthcare partners to establish best practices to ensure adherence	
	X	ii. Coordinate/liaise with regulation and oversight activities such as inpatient or outpatient facility licensing/accrediting bodies and professional licensing organizations to prevent HAIs	To be determined. See objective 1.9
	X	iii. Improve regulatory oversight of hospitals, enhancing surveyor training and tools, and adding sources and uses of infection control data	To be determined. See objectives 3.7, 3.8 and 3.9.
<input type="checkbox"/>	<input type="checkbox"/>	iv. 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

Status and Narrative Plan: While limited resources prevent full implementation of these measures, West Virginia will evaluate staffing and training of hospital infection control programs as part of needs assessment during 2011 (See objective 4.1). Informal information suggests that many hospital infection control programs may be understaffed and some hospital preventionists may have limited access to training. Based on needs assessment during 2011, and discussion with the Advisory Group, an appropriate strategy will be selected to establish best practices for hospital infection control in West Virginia. Appropriate staffing and access to quality training is an interim step towards implementation of best infection control practices in hospitals.

During 2011, the HAI Coordinator will engage the Office of Health Facility Licensure and Certification (OHFLAC) in discussions to enhance working relationships between the epidemiologists who investigate healthcare associated outbreaks and the surveyors who assess infection control in healthcare facilities. Infectious disease epidemiologists may be able to offer training to surveyors to improve their effectiveness. As HAI prevention efforts evolve, objectives of collaboration between Epidemiology and OHFLAC will also evolve and will be documented in this plan. See objective 1.8.

See also objectives 3.7, 3.8 and 3.9.

Objective 3.10 By December 31, 2011, this plan will address hospital infection preventionist (IP) staffing and training as an interim step towards implementation of best practices in hospitals in West Virginia.

Date Due	3.10 Evaluation Measure	Person Responsible
December 31, 2011	Hospital IP resources (staffing and training) are addressed in this plan	HAI Coordinator Advisory Group

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input type="checkbox"/>	<input type="checkbox"/>	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)	
Status and Narrative Plan: West Virginia has insufficient resources to plan towards this imperative at this time.			
Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input type="checkbox"/>	<input type="checkbox"/>	7. Establish collaborative to prevent HAIs in nonhospital settings (e.g., long term care, dialysis)	
Status and Narrative Plan: Outbreak investigations suggest that substantial training needs exist in long term care settings in West Virginia. During 2011, WV will form a long term care working group jointly with WWHCA and APIC-WV to address long term care issues. The working group will evaluate whether a collaborative would be appropriate. See Objective 3.6.			

4. Evaluation and Communications

Table 4: State HAI communication and evaluation planning

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation						
	X	1. Conduct needs assessment and/or evaluation of the state HAI program to learn how to increase impact	April 15, annually						
	X	<ul style="list-style-type: none"> i. Establish evaluation activity to measure progress towards targets and ii. Establish systems for refining approaches based on data gathered 	December 31, annually						
<p>Status and Narrative Plan:</p> <p>After review by the MAG, a survey instrument will be distributed to hospital Infection Preventionists in West Virginia. Information will be collected on perceived barriers to implementation of HICPAC recommendations, involvement in prevention collaboratives, and training needs. The questionnaire will also ask “what are your top 5 priorities in your annual risk assessment?”. After data is collected, the result will be summarized by the HAI coordinator and presented to the MAG. Results will be used to refine this plan. In addition to this survey, findings from healthcare associated outbreak investigations will be presented to the MAG as part of needs assessment. As systemic errors in infection control are identified through outbreak investigations, those errors will be addressed through training or other appropriate interventions.</p> <p>Objective 4.1: By April 15, 2011, and annually thereafter, the HAI Coordinator will present results of a needs assessment to the Advisory Group.</p> <table border="1"> <thead> <tr> <th>Date Due</th> <th>4.1 Evaluation Measure</th> <th>Person Responsible</th> </tr> </thead> <tbody> <tr> <td>April 15, annually</td> <td>Minutes of the multidisciplinary group meeting document presentation of a completed needs assessment</td> <td>HAI Coordinator Bureau for Public Health</td> </tr> </tbody> </table> <p>Objective 4.2: On an annual basis by December 31, the state HAI plan shall be revised to reflect current priorities, and posted</p>				Date Due	4.1 Evaluation Measure	Person Responsible	April 15, annually	Minutes of the multidisciplinary group meeting document presentation of a completed needs assessment	HAI Coordinator Bureau for Public Health
Date Due	4.1 Evaluation Measure	Person Responsible							
April 15, annually	Minutes of the multidisciplinary group meeting document presentation of a completed needs assessment	HAI Coordinator Bureau for Public Health							

to www.wvidep.org.

Date Due	4.2 Evaluation Measure	Person Responsible
Annually by December 31, beginning in 2009	This plan, updated, is posted to www.wvidep	HAI Coordinator, Infectious Disease Epidemiology Programmer Analyst I, Bureau for Public Health

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	2. Develop and implement a communication plan about the state's HAI program and progress to meet public and private stakeholders needs <ul style="list-style-type: none"> i. Disseminate state priorities for HAI prevention to healthcare organizations, professional provider organizations, governmental agencies, non-profit public health organizations, and the public 	February 19, 2010

Status and Narrative Plan: The HAI coordinator will produce an executive summary of this plan for distribution to APIC-WV, WV Hospital Association, WV Healthcare Association, OHFLAC, licensing boards and professional organizations. This HAI plan and the executive summary will be posted in DIDE's website. The HAI coordinator will attend quarterly APIC-WV meetings and share information on the plan and the needs assessment. This HAI plan will also be shared with the Licensing Boards and Regulatory Agencies at a proposed March, 2011 meeting.

As required by law, WV Health Care Authority will update the legislature on the status of public reporting of HAI by January 15, annually.

Objective 4.3: APIC-WV shall discuss this HAI Plan at the February meeting in 2011.

Date Due	4.3 Evaluation Measure	Person Responsible
February , 2011	Minutes from the February APIC-WV meeting reflect discussion of the West Virginia State HAI Plan	President, APIC-WV HAI coordinator WVBPH

Objective 4.4: West Virginia Hospital Association (WVHA) shall disseminate the HAI Plan Executive Summary to stakeholders via e-mail when it is available. .

Date Due	4.4 Evaluation Measure	Person Responsible
March, 2011	HAI Plan Executive Summary has been sent to stakeholders from the West Virginia Hospital Association.	Jim Kranz, West Virginia Hospital Association

Objective 4.5: West Virginia HCA shall make a report of progress on their activities as required under West Virginia State Code 16-5B-17 by January 15, annually.

Date Due	4.5 Evaluation Measure	Person Responsible
January 15, annually	Report is submitted to the West Virginia State Legislature	West Virginia HCA

Objective 4.6: West Virginia Bureau for Public Health shall communicate about the state planning process at least annually with the Office of Health Facility Licensure and Certification and the medical, osteopathic, dental, pharmacy and nursing boards.

Date Due	4.6 Evaluation Measure	Person Responsible
Annually, by December 31	Meeting minutes document communication with OHFLAC and the medical, osteopathic, dental, pharmacy and nursing licensing boards.	HAI Coordinator, West Virginia Bureau for Public Health

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	3. Provide consumers access to useful healthcare quality measures	To be determined

Status and Narrative Plan: The West Virginia Health Care Authority (West Virginia HCA), in collaboration with its Infection Control Advisory Panel (ICAP) mandated collection of central line associated bloodstream infection (CLABSI) data by hospitals beginning July 1, 2009. Data on influenza immunization of healthcare workers was also collected by hospitals beginning in 2009. CLABSI surveillance uses the National Healthcare Safety Network (NHSN) collection and reporting system. Under West Virginia law, West Virginia HCA, in collaboration with the ICAP is authorized to require hospitals to submit data to NHSN and release that data to the public. West Virginia HCA, in collaboration with ICAP continues to evaluate the feasibility of releasing data to the public.

Objective 4.7: On an annual basis by December 31, the West Virginia HCA shall evaluate feasibility of releasing healthcare quality data.

Date Due	4.7 Evaluation Measure	Person Responsible
Annually by December 31	Feasibility of releasing healthcare quality data is addressed in this plan	Amy Wenmoth West Virginia Health Care Authority

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	X	4. Identify priorities and provide input to partners to help guide patient safety initiatives and research aimed at reducing HAIs	ongoing

Status and Narrative Plan: Through needs assessment (See objective 4.1), the multidisciplinary committee will identify current priorities and use that information to update prevention efforts (Objective 4.2).