Massachusetts Department of Public Health Infrastructure Planning for HAI Surveillance, Prevention and Control

Healthcare Associated Infection Plan

Massachusetts Department of Pubic Heath
Healthcare Associated Infection Prevention Program

Introduction

Healthcare associated infections (HAIs) are a major public health concern, contributing to increased morbidity, mortality, and cost. In an effort to raise awareness, promote transparency for healthcare consumers and motivate hospitals to prioritize infection prevention, many states now require reporting of selected HAIs to their health authorities and make this information available to the public. In Massachusetts, a commitment to recognize and specifically address HAIs began in 2006 with the passage of the groundbreaking healthcare reform law (Chapter 58 of the Acts of 2006, Section 2). This law directed the Massachusetts Department of Public Health (MDPH) to develop a Statewide Infection Prevention and Control Program. An Expert Panel was convened and recommendations made for evidenced-based prevention practices and mandatory reporting of HAI measures by acute care hospitals to the Center for Disease Control and Prevention's National Healthcare Safety Network (NHSN). Following completion of the work of the HAI Expert Panel, an aggressive program to implement the recommendations began. In addition to the broad dissemination of the evidence-based recommendations and the adoption of mandatory reporting, a multidisciplinary HAI Technical Advisory Group (TAG) was formed and meets quarterly to advise the MDPH on all aspects of the statewide HAI prevention and control program.

Acute care hospital licensure regulations were revised to incorporate the requirements for HAI reporting using NHSN, and beginning July 2008 acute care hospitals were reporting central line-associated blood stream infections (CLABSI) and surgical site infection (SSI) resulting after selected orthopedic, cardiac and gynecological procedures. In September 2008, the first statewide point prevalence survey for methicillin-resistant *Staphylococcus aureus* (MRSA) in ICU patients was conducted and the process of reporting of influenza vaccination rates in healthcare workers was implemented in October 2008. Massachusetts issued a preliminary report on four months of data for selected measures in April 2009.

Since July 2007, the Massachusetts Coalition for the Prevention of Medical Errors has offered collaborative programming to support hospitals in their work to prevent HAIs. Working with the Massachusetts Hospital Association (MHA), MDPH, and the Betsy Lehman Center for Patient Safety, the Coalition's approach has been to enlist participation by 100% of acute care hospitals and accelerate progress in infection prevention in those hospitals by sharing local and national best practices, tools and resources, and implementation strategies, as well as engaging senior leadership commitment.

The recent economic downturn in Massachusetts brought a 40% cut in the program funding at a critical point in the implementation stage and funds to support the full range of MDPH's data management needs were reduced. Some of the scheduled activities had to be curtailed and others delayed indefinitely.

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The Massachusetts Department of Public Health has been awarded $1,599,587 by the United States Department of Health and Human Services, (HHS), Centers for Disease Control and Prevention (CDC), American Recovery and Reinvestment Act, (ARRA), Epidemiology and Laboratory Capacity for Infectious Diseases (ELC), Healthcare-Associated Infections-Building and Sustaining State Programs to Prevent Healthcare Associated Infections Grant. The funding will complement existing state efforts to address HAIs and support the following activities:

Activity A: Coordination and Reporting of State HAI Prevention Efforts
Massachusetts will enhance efforts to coordinate and implement HAI prevention activities and report on progress toward reductions in selected HHS Action Plan Targets. MDPH will be able to monitor 2 of the 7 national targets immediately (CLABSI-1 and SSI-1). Designation of a dedicated Coordinator who will focus on HAI prevention, development and implementation of the State HAI Plan are new activities under the ARRA funding.

Activity B: Detection and Reporting of HAI Surveillance Data
Support for this initiative includes plans to improve the quality of the recently implemented NHSN-based reporting system with data cleaning and validation activities. In addition, there will be time-phased expansion of metrics tracked in order to ultimately assess progress on 5 of 7 Health and Human Services Action Plan Targets. This expansion will be facilitated by enhanced capacity for electronic laboratory reporting (ELR).

Activity C: Establishing a Prevention Collaborative.
MDPH has partnered with the Massachusetts Coalition for the Prevention of Medical Errors to conduct two collaborative initiatives targeting reductions in 1) central line associated blood stream infection (CLABSI), and 2) multi-drug resistant organisms (MDROs). The comprehensive infection prevention training is intended to promote measureable progress toward the national prevention targets outlined in the HHS Action Plan to Prevent HAIs.

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Table 1: Infrastructure Planning for HAI Surveillance, Prevention and Control.

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level I	☒ Done	☐	1. Establish statewide HAI prevention leadership through the formation of multidisciplinary group or state HAI advisory council 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)) 1. The multidisciplinary HAI Technical Advisory Group (TAG) was launched in 2008 and meets quarterly. The TAG is comprised of hospital epidemiologists, infection preventionists, consumers, advocates, academics and representatives from state agencies, professional organizations and trade organizations. The role of the TAG is to advise MDPH on all issues related to HAI prevention, the results of reports and surveys, the application of surveillance and control methods and the presentation of the results to healthcare providers and the public. A full listing of TAG members and affiliations is found in Appendix 3. The 2010 meetings are scheduled for the following dates: 3/11/10, 6/3/10, 9/23/10 and 12/2/10. All meetings are open to the public. 2. The ARRA Principal Investigator serves as	Ongoing 2008 Ongoing

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			Chair for the TAG. HAI programmatic updates, review of performance goals, effectiveness of prevention activities and implementation timelines will be evaluated quarterly and more frequently as needed in collaboration with the TAG.	
	☒ Done		ii. Identify specific HAI prevention targets consistent with HHS priorities	Ongoing 2008
			1. Initial HHS metrics identified: CLA-BSI-1 and SSI-1.	2008
		☒	2. Additional metrics for phased in implementation include: SCIP-1 (formerly SSI-2), CDiff-1, and MRSA-1.	2010-2011
		☒	3. Selection of additional HHS metrics will be prioritized as directed by CDC, HHS, recommendations of the TAG, identification of emerging HAI issues and based on the experience of other jurisdictions.	Ongoing
			Other activities or descriptions (not required):	
	☒ Done		iii. The immunization of healthcare workers against influenza and the goal of achieving at least 90% coverage is a prioritized MDPH initiative.	
			1. MDPH required acute care facilities to report their success in providing influenza vaccine to their employees (defined by payroll).	2008-2009

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			2. MDPH required acute care facilities, licensed clinics and long term care facilities to provide both seasonal and pandemic H1N1 influenza vaccine to all personnel (broadly defined to include contractors, volunteers and students) free of charge. Due to the newness of the requirements and difficulties associated with vaccine supply, only the acute care facilities will be required to report immunization levels for seasonal influenza in 2010.	4/15/10
			3. MDPH will require long term care facilities to report influenza immunization rates for all personnel.	2011
			4. MDPH will require licensed clinics to report immunization rates for all personnel.	2012
			iv. The Massachusetts Healthcare-Associated Infection (HAI) Prevention and Control Program (HAI Program) was established in February 2008. The HAI Program activities are directed by an integrated and coordinated Leadership Group that includes key components and senior directors of the Massachusetts Department of Public Health (MDPH) including the Division of Health Care Quality (the state regulatory and survey agent), the Bureau of Infectious Disease Prevention, Response and Services (BID), Bureau of Health Care Safety and Quality (DHCQ) and the Betsy Lehman Center for Patient Safety and Medical Error	Ongoing

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			Reduction. Senior leadership is accountable for providing strategic direction and oversight for all HAI monitoring and improvement strategies. This structure promotes interdisciplinary collaboration and accountability at all levels of the organization. Additional membership includes the HAI program manager of the DHCQ, the program infection preventionists (2), the lead hospital surveyors (2), the program epidemiologists (2), the State Epidemiologist, the HAI Prevention Plan Coordinator, the project manager of the primary contractor and the collaborative program manager. The Leadership Group meets monthly. The 2010 meetings are scheduled for the following dates: 1/20/10, 2/24/10, 3/24/10, 4/21/10, 5/26/10, 6/23/10, 7/21/10, 8/25/10, 9/22/10, 10/20/10, 11/23/10 and 12/22/10. Agency Roles and Responsibilities: 1. Bureau of Health Care Safety and Quality (DHCQ). DHCQ is mandated by state and federal statutes to license and certify health care facilities. DHCQ provides fiscal oversight of the HAI Program and supervision of the infection preventionists, and regulatory and technical personnel. 2. Betsy Lehman Center – convening of expertise on preventive best practices and research questions and as a repository of pilot study data.	

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			3. Bureau of Infectious Disease Prevention, Response and Services (BID) – data analysis, technical support for infection prevention recommendations, policy implementation and epidemiology of HAI. 4. HAI Program Coordinator will provide leadership and program direction to maximize efforts for progress on the HHS HAI prevention targets and adherence to the statewide plan. 5. JSI Research and Training Institute, Inc. - major contractor providing technical support to all program components and operations, and management of subcontract. 6. Massachusetts Coalition for the Prevention of Medical Errors – contracted to offer collaborative programming to support hospitals in their work to prevent HAI.	
			v. The 2006 state health care reform law established the Health Care Quality and Cost Council (HCQCC), a legislatively mandated entity chaired by the Secretary of Health and Human Services and charged with establishing statewide goals for improving health care quality, containing health care costs, and reducing racial and ethnic disparities in health care. The MDPH Commissioner of Public Health is a member of the HCQCC, and MDPH chairs several HCQCC committees that are developing and addressing the HAI and serious reportable event prevention and reporting goals. The Council receives input and advice from an	Ongoing

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			Advisory Committee that includes representation from consumers, business, labor, health care providers, and health plans. Among the Council's specific goals and strategies is the public reporting of HAIs and serious reportable events.	
	☒ Done	☐	2. Establish an HAI surveillance prevention and control program i. Designate a State HAI Prevention Coordinator	Accomplished, 9/09 Eileen McHale
	☒	☐	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)	Accomplished
			Other activities or descriptions (not required):	
	☒	☐	3. Integrate laboratory activities with HAI surveillance, prevention and control efforts. 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)	
		☒	1. Electronic laboratory reporting - all clinical laboratories licensed to provide diagnostic services will be required to report electronically. Public health laboratory capacity - in place.	12/31/10

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	☒		*Other activities or descriptions (not required):* ii. MDPH will continue and expand reporting of invasive MRSA infection with implementation of ELR from all licensed clinical laboratories by 12/31/2010. 1. Clinical laboratories will submit data via ELR as per requirements that became effective as regulatory amendments in 2008 (105 CMR 300). 2. All laboratories will report isolates of MRSA obtained from blood cultures or from cultures of other normally sterile body fluids and sites. 3. MDPH will analyze these reports and calculate population-based rates of invasive MRSA infection using hospital proportion of hospital discharges to estimate proportion of Massachusetts population at risk. 4. MDPH will explore methods to capture admission date with laboratory reports received through ELR in order to establish likelihood of laboratory results representing healthcare-acquired infections. a. If feasible, MDPH will analyze these laboratory results with respect to positive cultures collected before and after two days following date of admission.	12/31/10 7/11 7/12

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			5. MDPH will publicly report population-based rates of invasive MRSA infection, in aggregate, statewide and by region, to establish a benchmark.	12/31/10
			a. It will be noted that these rates will initially be inclusive of community-associated, as well as healthcare associated infections.	
			b. If feasible, MDPH will publicly report rates of healthcare-associated invasive MRSA infection (as defined above in terms of culture positivity after admission) by hospital.	12/31/12
			iii. MDPH will continue to monitor aggregate antibiotic susceptibility reports from clinical laboratories for proportion of isolates of *Staphylococcus aureus* that are non-susceptible to oxacillin (MRSA). Currently, such "antibiograms" are submitted voluntarily, and laboratories will be encouraged to continue doing so.	Ongoing
			1. Regulations will be promulgated to:	12/31/10
			a. Require all licensed clinical laboratories in Massachusetts to adhere to the Clinical and Laboratory Standards Institute (CLSI) guidelines for standard reporting of antibiograms, as presented in *Analysis and Presentation of Cumulative*	

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			Antimicrobial Susceptibility Test Data; Approved Guideline—Third Edition (M39-A3), or as amended in further editions, and with consideration given to laboratory culture volume.	
			b. Require all licensed clinical laboratories in Massachusetts to submit institutional antibiograms for sequential 12-month periods (calendar, academic or fiscal year), with consideration given to laboratory culture volume and multiple sources of culture submission (outpatient versus inpatient).	12/31/11
			c. MDPH will explore electronic means of transmission of antibiogram data or direct transmission of susceptibility test results.	12/31/11
			d. MDPH will provide periodic public reports of trends in *S. aureus* susceptibility to oxacillin and other antimicrobial agents, based on antibiogram analysis.	7/1/10 and ongoing
			iv. MDPH will continue to encourage and accept submission of all clinical isolates of *S. aureus* potentially resistant to glycopeptide antibiotics, such as vancomycin, as part of state and national	Ongoing

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			surveillance for confirmed vancomycin resistance.	
			v. Clostridium difficile	
			1. MDPH will monitor *C. difficile* infection in hospitalized patients using the uniform Hospital Discharge Data Set (HDDS) and codes for *C. difficile* infection (ICD-9: 008.45; ICD-10: A04.7) in any field.	2/1/10 and ongoing
			2. MDPH will provide a report on *C. difficile* infection in Massachusetts including trends, demographics, hospitalization type (primary or secondary diagnosis) and outcomes, using the HDDS and death certificate data.	12/31/10
			3. MDPH, in consultation with the TAG, will review available data and data sources on *C. difficile* infection and make a determination as to useful public reporting by facility or facility type.	12/31/11
			4. All clinical laboratories will report stool specimens positive for evidence of toxigenic *C. difficile* infection by ELR.	12/31/10
			5. MDPH will explore methods to capture admission date with *C. difficile* laboratory reports received through ELR in order to establish likelihood they represent healthcare-acquired infections.	
			a. MDPH will evaluate the use of laboratory reporting of stool specimens positive for evidence of toxigenic *C. difficile* infection as a	2012 and ongoing

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			means of monitoring trends in *C. difficile* infection and as a surrogate for infections acquired in a healthcare facility (positive 48 hours or more hours after admission, with a negative or absent earlier result) versus community-acquired.	
			vi. Additional MDROs	
			1. Recognizing that MRSA infection accounts for a small proportion of all healthcare-associated infections, MDPH will put into place monitoring of antibiograms for trends in other organisms of concern associated with healthcare-associated infection, including, but not limited to, gram-negative bacilli in general, extended-spectrum beta-lactamase-producing organisms and carbapenemase-producing organisms.	7/1/10
			2. MDPH will sponsor conferences on infections due to extended-spectrum beta-lactamase-producing organisms, carbapenemase-producing organisms and other gram-negative MDROs.	May 6, 2010 and November 3, 2010
			3. MDPH will present a report to the TAG on occurrence and trends in MDROs of concern to inform and guide consideration of further surveillance activities and prevention initiatives.	12/31/10

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	☒	☐	4. Improve coordination among government agencies or organizations that share responsibility for assuring and/or overseeing HAI surveillance, prevention and control (e.g., State Survey agencies, Communicable Disease Control, state licensing boards) i. The necessary regulatory framework, core personnel resources and departmental leadership are in place. ii. Designation of a dedicated Coordinator will enhance efforts.	9/09
			Other activities or descriptions (not required):	
Level II	☒	☐	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 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. i. All clinical laboratories will be required to participate in electronic laboratory reporting (ELR) using HL-7 messaging and LOINC and SNOMED	12/31/10 12/31/10

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			codes. ii. All acute care hospitals will be trained, enrolled and submitting HAI data via NHSN. iii. All Free Standing Ambulatory Surgical Centers (ASC) will be trained, enrolled and submitting HAI data via NHSN. iv. All dialysis units will be submitting HAI data on selected measures related to HAI and HAI prevention.	7/1/08 ongoing 6/1/10 12/31/12
			Other activities or descriptions (not required):	
Please also describe any additional activities, not listed above, that your state plans to undertake. Please include target dates for any new activities.				

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2. Surveillance, Detection, Reporting, and Response

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level I			1. Improve HAI outbreak detection and investigation	
	☒	☐	i. Work with partners including CSTE, CDC, state legislature, local boards of health and providers across the healthcare continuum to improve outbreak reporting to state health departments ii. MDPH will continue to develop additional partnerships to enhance the response to HAI outbreaks in facilities across the continuum of healthcare.	Established and ongoing
	☒	☐	iii. Experience with review and oversight will guide ongoing improvement of processes and responses to serious breaches in infection control, suspect cases and clusters, and outbreaks. The formalization of infection prevention review and oversight will enhance the already well established collaboration of DHCQ and BID in occurrence, outbreak investigation and follow-up. DHCQ and BID will continue to assist healthcare facilities across the continuum and local health departments with HAI outbreak investigations.	Established and ongoing

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	☒	☒	iv. Establish protocols and provide training for health department staff to investigate outbreaks, clusters or unusual cases of HAIs. 1. Outbreak module built as part of the MA PHIN-compliant surveillance system (MAVEN) in place. 2. Response to MRDO surveillance findings outside of expected. MDPH in consultation with the TAG will develop guidelines for the interpretation of facility/agency specific surveillance indicators of prevalence of incidence of MDROs that will trigger surveys and interventions to establish cause and recommend evidence-based prevention interventions.	2010 2011 12/31/11
	☒	☐	v. 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	Confidentiality and privacy safeguards established
	☒	☒	vi. 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	

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			organisms (MDRO), and other reportable HAIs) 1. The newly developed MAVEN outbreak module is being piloted in one acute care hospital. If its utility to infection prevention programs is established it will be implemented in all hospitals. *Other activities or descriptions (not required):* vii. In 2006, the Bureau of Communicable Disease Control, Office of Integrated Surveillance and Informatics Services (ISIS), developed and implemented a web-based, Public Health Information Network (PHIN) compliant disease surveillance system that allows MDPH to share critical disease information within its divisions and with local public health, and transmit information in a timely manner to the CDC. Called MAVEN (Massachusetts Virtual Epidemiology Network), the system interfaces with the electronic laboratory reporting system, allowing for immediate access to laboratory data.	2010
	☒	☐	2. Enhance laboratory capacity for state and local detection and response to new and emerging HAI issues. i All clinical laboratories reporting	12/31/10

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			electronically by using HL-7 messaging and LOINC and SNOMED codes. Laboratory response network (LRN) protocols in place	
			Other activities or descriptions (not required)	
Level II	☐ ☒	☒ ☒	3. Improve communication of HAI outbreaks and infection control breaches 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) 1. There has been longstanding collaboration between the Bureau of Infectious Diseases, the Division of Health Care Quality and Sharps Injury Surveillance and Prevention Program. Mechanisms and protocols will be reviewed and updated in 2010. Plans to increase collaboration with Boards of Registration in Medicine, Nursing, local boards of health and additional licensed healthcare professionals will be implemented.	2010 protocols will be established 2010

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			Other activities or descriptions (not required):	
	☒	☐	4. Identify at least 2 priority prevention targets for surveillance in support of the HHS HAI Action Plan i. Central Line-associated Bloodstream Infections (CLABSI)	Ongoing since 7/1/08. All acute care hospital ICUs
	☐	☒	ii. *Clostridium difficile* Infections (CDI)	12/31/10
	☐	☒	iii. Catheter-associated Urinary Tract Infections (CAUTI) 1. Preventive best practices and reporting measures for Long Term Care Facilities (LTCF).	12/31/10
	☒	☐	iv. Methicillin-resistant *Staphylococcus aureus* (MRSA) Infections 1. Surveillance for invasive disease in place since 1999 will be enhanced by full ELR.	12/31/10
	☒	☐	v. Surgical Site Infections (SSI)	Ongoing since 7/1/08
	☐	☒	vi. Ventilator-associated Pneumonia (VAP) 1. Preventive best practices identified. Further direction on metrics and targets will be guided by CDC and the TAG.	
			Other activities or descriptions (not required):	

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			5. Adopt national standards for data and technology to track HAIs (e.g., NHSN).	
	☒	☐	i. Develop metrics to measure progress towards national goals (align with targeted state goals).	In progress and on going
			ii. All acute care hospitals have been reporting CLABSI-1 and SSI-1 outcome measures to NHSN since 7/1/08.	Ongoing
	☒	☐	iii. Establish baseline measurements for prevention targets	2009
	☒	☐	iv. CLABSI-1: 50% reduction from 2009 baseline.	2012
	☒	☐	v. SSI-1- 25% reduction in deep incision and organ/space infections from 2009 baseline.	2014
	☐	☒	vi. VAP- 95% compliance with established VAP prevention program (i.e. "bundle" or equivalent).	2012
	☐	☒	vii. MDRO, MRSA - 50% reduction in invasive MRSA cases associated with healthcare.	2012
	☐	☒	viii. *Clostridium difficile* - 30% reduction in *C. difficile* infection per 1000 hospital discharges by 2014 as compared to the infections coded in hospital discharges in 2008.	2014
	☐	☒	ix. Selection of further targets and their implementation – MDPH with the TAG and CDC will identify new and enhanced prevention goals.	2012

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	☒		*Other activities or descriptions (not required):* x. Calculation of risk adjusted Standardized Infection Ratio (SIR) for NHSN measures	4/10
		☒	xi. Exploration of interoperability of MAVEN with NHSN	12/10
		☒	xii. Conduct additional analyses of hospital discharge data set (HDDS), CMS performance measure data or other electronic files to potentially establish baseline rates for additional HHS HAI metrics and measures (*C. difficile*, invasive MRSA and SCIP process measures (SSI-2))	2/10 – 12/11
	☒	☒	6. Develop state surveillance training competencies i. Conduct local training for appropriate use of surveillance systems (e.g., NHSN) including facility and group enrollment, data collection, management, and analysis	
			ii. Four teleconferences will provide ongoing continuing education on NHSN for all Massachusetts NHSN facilities. Proposed topics include: data quality, skills development for use of NHSN data for hospital-level analysis, updates to NHSN modules, and additional prioritized HAI-related issues. Training materials and presentations will be accessible on the MDPH website. Educational sessions will be recorded and available on CD by	5/10, 10/10, 4/11, 9/11 Teleconferences planned

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			request.	
			iii. Ongoing technical assistance is available for hospital staff via dedicated phone and e-mail.	Established in 2007
			iv. MDPH has partnered with the Massachusetts Association of Ambulatory Surgery Centers to sponsor an NHSN training session for ASC staff. MDPH will collaborate with CDC in the development of materials and detailed resources for training and technical assistance.	4/10
			v. MDPH in collaboration with CDC and the Massachusetts Senior Care Association will develop and facilitate trainings for extended care staff on proposed metrics, data collection systems, surveillance definitions and reporting.	6/10
			vi. MDPH is committed to collaborating with internal and external partners to support training to increase knowledge and skills on HAI surveillance and prevention. Critical competencies will be identified and implementation strategies developed.	2010
			vii. Program staff will continue to participate in monthly NHSN and Council of State and Territorial Epidemiologists (CSTE) calls.	Ongoing
			viii. Program staff is available to provide formal presentations and updates at local and regional conferences and meetings	Ongoing

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			upon request.	
			Other activities or descriptions (not required): ix. Development of a web based education program for infection prevention. MDPH will explore the potential for collaboration with academic institutions and additional partners to develop competency based training and education programs based on identified needs.	
	☒	☒	7. Develop tailored reports of data analyses for state or region prepared by state personnel i. The preliminary aggregate report of NHSN data, representing the first 4 months of BSI and SSI reporting was released. ii. The HAI Prevention Program released a public report on selected measures reported by Massachusetts acute care hospitals to the National Healthcare Safety Network (NHSN) during the period July 1, 2008 – June 30, 2009. The report contains facility specific standardized infection ratios (SIR) on central line catheter-associated blood stream infections (CLABSI) and surgical site infections (SSI) occurring as a result of selected orthopedic procedures. SIRs for	4/09 4/10

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			selected cardiac and gynecological procedures were reported in aggregate and will be facility specific April 2011 and annually thereafter. The 2010 Annual Report is available on line at: www.mass.gov/dph/dhcq.	
			Other activities or descriptions (not required): iii. HAI reports are intended to provide meaningful, relevant and easily understandable information for a wide variety of stakeholders and audiences. Consideration of the needs, background and expectations of the reader is critical to communicating results and will increase the likelihood that the reports will have an impact. Massachusetts has identified several audiences and will develop and disseminate reports for the following groups: consumers including patients, caregivers, and patient advocacy groups; healthcare provider groups including physicians, nurses, infection preventionists and healthcare facility administrators; governmental and legislative policy makers and the media. iv. Understanding and preventing race/ethnicity-based disparities in healthcare process and outcomes is a high	4/10 Ongoing 1/09

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			priority. All Massachusetts acute care hospitals are required to submit data on race and ethnicity using "optional" NHSN fields and Massachusetts' expanded ethnicity codes.	
Level III	☒	☒	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. The goal will be to assess completeness of reporting for CLABSI in ICUs; SSI for knee and hip arthroplasty, hysterectomy, and CABG by searching for cases that met criteria but were not reported. MDPH will explore the use of the state's hospital discharge dataset (HDDS), CMS performance measure and ELR data for use in validation of measures reported by acute care hospitals.	
	☒	☒	i. Develop a validation plan. A protocol for validation will be developed using shared products from CDC and other states.	12/1/09 – 4/10
	☐	☒	ii. Pilot test validation methods in a sample of healthcare facilities. On completion, plan will be pilot tested in 3 acute care hospitals and modified as needed with input from the TAG, Leadership Group, Coordinator and Infection Preventionists.	5/10 – 6/10
	☐	☒	iii. Modify validation plan and methods in accordance with findings from pilot project.	5/10 – 6/10
	☐	☒	iv. Implement validation plan and methods in 36 healthcare facilities participating in	12/31/10

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			HAI surveillance.	
	☐	☒	v. Implementation in all acute care hospitals.	12/31/11
	☐	☒	vi. Analyze and report validation findings.	5/10 - 12/31/11
	☐	☒	vii. Use validation findings to provide operational guidance for healthcare facilities that targets any data shortcomings detected.	Ongoing 2/28/10 – 12/31/11
			Other activities or descriptions (not required):	
	☒		viii. Establishment of quality assurance system to assess the completeness and accuracy of data reported to NHSN.	6/09 and ongoing
		☒	ix. All NHSN participating facilities will receive training and feedback on data validation.	5/10, 10/10, 4/11, 9/11 Teleconferences planned
	☒	☐	9. Develop preparedness plans for improved response to HAI	
			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	Ongoing
			ii. Massachusetts demonstrates a well established approach for public health preparedness.	
			iii. The Reportable Diseases, Surveillance, and Isolation and Quarantine Regulations (105 CMR 300.134) require licensed hospitals to report illness believed to be part of an outbreak or cluster.	

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			iv. The hospital licensure regulations governing the reporting of serious incidents and accidents (105 CMR 130.331) require hospitals to report incidents that seriously affect the health and safety of patients, including "reportable infectious disease outbreaks".	
			Other activities or descriptions (not required):	
	☐	☒	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 i. The Division of Health Professions Licensure within the Massachusetts Department of Public Health is comprised of eight boards of registration: Dentistry, Genetic Counselors, Nursing, Nursing Home Administrators, Perfusionists, Pharmacy, Physician Assistants and Respiratory Care. They establish rules and regulations to ensure the integrity and competence of licensees. ii. The Board of Registration in Medicine licenses and regulates physicians. iii. MDPH will collaborate with professional licensing organizations to identify and investigate HAI-related complaints in physician offices, ambulatory surgical centers and free standing dialysis centers and develop continuing education and	6/10 - 2011

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			standards for competence and practice for all care settings.	
			iv. MDPH will engage the TAG in further defining best practices for training and certification of professionals in HAI prevention.	2010
			v. MDPH will consult with internal and external expertise in regard to establishing requirements for education, training and certification of healthcare professionals in HAI prevention.	2011
			vi. Working with professional organizations and academic partners, MDPH will offer or co-sponsor conferences and other opportunities in infection prevention education.	Established and ongoing
			vii. MDPH will promulgate regulations to require all licensed healthcare facilities to provide annual infection prevention training for all staff, appropriate to their job function, and appropriate to the work site, including but not limited to hand hygiene, newly identified best practices, cleaning and disinfection, and emerging infections. Details of these regulations will be determined through the established regulatory development and promulgation process.	7/12

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			Other activities or descriptions (not required):	
	☒ ☐	☐ ☒	11. Adopt integration and interoperability standards for HAI information systems and data sources 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. iii. Additional roll-out of MAVEN functionality through 2011 will allow for improved overall surveillance. iv. MDPH has adopted NHSN, HL7, LOINC, SNOMED and will work with CDC, the Agency for Healthcare Research and Quality (AHRQ), CMS and additional agencies on standardization. v. MDPH is committed to the promotion of electronic laboratory reporting (ELR) by healthcare facilities. ELR has demonstrated the potential to reduce the reporting burden and increase efficiency and reliability of the data.	Ongoing 2011 Ongoing Ongoing

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			Other activities or descriptions (not required):	
	☒	☒	12. Enhance electronic reporting and information technology for healthcare facilities to reduce reporting burden and increase timeliness, efficiency, comprehensiveness, and reliability of the data. i. Report HAI data to the public ii. Initial Preliminary Report issued. iii. Acute care facility specific including Standardized Infection Ratio (SIR). The HAI Prevention Program released a public report on selected measures reported by Massachusetts acute care hospitals to the National Healthcare Safety Network (NHSN) during the period July 1, 2008 – June 30, 2009. The report contains facility specific standardized infection ratios (SIR) on central line catheter-associated blood stream infections (CLABSI) and surgical site infections (SSI) occurring as a result of selected orthopedic procedures. SIRs for selected cardiac and gynecological procedures were reported in aggregate and will be facility specific April 2011 and ongoing. The 2010 Annual Report is available on line at: www.mass.gov/dph/dhcq.	4/09 and annually thereafter 4/09 4/10

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			Other activities or descriptions (not required):	
	☒	☒	13. Make available risk-adjusted HAI data that enables state agencies to make comparisons between hospitals. i. The 2009 HAI Preliminary report represented risk adjusted-data based on established and scientifically sound NHSN methodology for SSIs and CLABSIs. ii. The first annual facility specific HAI report including SIR for SSIs and CLABSIs was released by MDPH. The 2010 Annual Report is available on line at: www.mass.gov/dph/dhcq.	4/09 4/10
			Other activities or descriptions (not required):	
	☒	☒	14. Enhance surveillance and detection of HAIs in nonhospital settings i. Massachusetts healthcare reform law (Chapter 58 of the Acts of 2006) and the HCQCC have mandates for expanding HAI prevention efforts across the full spectrum of health care delivery. The Infection Prevention Work Group of the Patient Safety Sub-Committee of the HCQCC has investigated best practices and reporting metrics for a number of care sites and agencies. Experts in each area of healthcare including local boards of health have contributed to an understanding of	

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			the setting, the challenges faced in regard to infection prevention and the identification of best practices.	
			ii. Ambulatory Surgical Centers (ASC)	6/10
			1. Regulations require ASCs to report HAIs via NHSN and infection control process measures according to guidelines presently under development.	
			2. Best practices are being identified and appropriate metrics evaluated.	Ongoing
			3. MDPH has partnered with the Massachusetts Association of Ambulatory Surgery Centers to sponsor an NHSN training session for ASC staff. MDPH will collaborate with CDC in the development of materials and detailed resources for training and technical assistance.	4/28/10
			4. All free standing ASC staff trained, enrolled and reporting via NHSN, as appropriate.	7/10
			5. Public report of selected measures for public access.	12/11
			6. MDPH surveyors will implement a new infection control survey tool developed by CDC and CMS intended to promote improved infection control practices	2010

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			iii. Dialysis units	
			1. Best practices are being identified and appropriate metrics evaluated.	Ongoing
			2. Measures for the reporting of HAI, including but not limited to device associated bloodstream infections, will be identified through a consultative process including the TAG, CDC, experts in dialysis care and the End Stage Renal Disease Network of New England.	2010
			3. Operators of dialysis units will be encouraged to participate in quality collaboratives, such as that organized by the CDC/Delmarva Foundation partnership or equivalent.	Ongoing
			4. Regulations for infection prevention and public reporting of quality measures, including HAI will be promulgated for dialysis units.	4/12
			5. All free-standing dialysis units will be required to have in place reporting procedures specified by MDPH for the reporting of identified quality measures.	12/12
			iv. Extended care - inclusive of long-term care, rehabilitation hospitals and long-term/acute facilities	

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			1. A task group consisting of infection preventionists from extended and acute care facilities, experts in the area of extended care and geriatrics, local boards of health and representatives of the Massachusetts Senior Care Association has reviewed potential metrics to monitor and report in these settings including process measures for immunization of staff and residents.	Ongoing
			2. Metrics under consideration for recommendation to the HCQCC include indwelling urinary catheter days, immunization of staff and residents against influenza and hospitalization for infection.	Ongoing
			3. Surveys will be conducted in 2010 to assess the feasibility of these measures and a "needs assessment" will be used to assess the requirements for future implementation. Data have already been collected, and these data will provide baseline information of rates of infection, urinary catheterization and immunization, and will provide information on necessity for	2010

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			additional data. 4. The utility of NHSN for these facilities will be evaluated.	
			Other activities or descriptions (not required): Expansion to the following sites is contingent on adequate staffing and funding. v. Infusion therapy centers 1. MDPH will continue the collaboration established with the Infusion Nurse's Society and additional stakeholders to evaluate infection prevention in infusion therapy centers and to provide direction on the implementation of evidence based guidelines and the potential for reporting measures of infection. vi. Home care and hospice 1. MDPH will convene a task group to assess the current status of infection prevention in home care and hospice programs and provide consultation to inform plans for assuring application of best practices and the potential for reporting measures of infection. vii. Primary care facilities 1. The HCQCC will require all settings in which patient care is	2010 2011

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			delivered to establish a Patient Safety Program by 2012. MDPH will continue to participate in this process to ensure infection prevention is identified as a core component.	
Please also describe any additional activities, not listed above, that your state plans to undertake. Please include target dates for any new activities.				

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Table 3: Planning for HAI Prevention Activities

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level I	☒	☐	1. Implement HICPAC recommendations. i. Develop strategies for implementation of HICPAC recommendations for at least 2 prevention targets specified by the state multidisciplinary group. ii. Current targets and metrics are consistent with those identified by national organizations including HICPAC, CDC, the National Quality Forum (NQF), the Society for Healthcare Epidemiology of America (SHEA), the Association of Professionals in Infection Control and Epidemiology (APIC) and the Infectious Diseases Society of America (IDSA).	Accomplished 12/09
			Other activities or descriptions (not required):	
	☒	☒	2. Establish prevention working group under the state HAI advisory council to coordinate state HAI collaboratives i. Assemble expertise to consult, advise, and coach inpatient healthcare facilities involved in HAI prevention collaboratives ii. Areas for focused collaborative intervention were guided by the Technical Advisory Group (TAG).	Accomplished and ongoing 12/09
			Other activities or descriptions (not required):	

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			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)	
	☒	☐	i. Identify staff trained in project coordination, infection control, and collaborative coordination.	Accomplished and ongoing
	☒	☐	ii. The Massachusetts Coalition for the Prevention of Medical Errors has been contracted to provide collaborative programming to support hospitals in their work to prevent healthcare associated infections (HAIs).	10/09
	☒	☐	iii. With guidance from the TAG, focus for collaboratives has been established. (CLABSI/CUSP and MDRO prevention focusing on non-device related infections including Clostridium *difficile*).	12/09
	☒	☐	iv. Recruit hospitals for CLABSI/CUSP collaborative	8/09 – 10/09, 12 acute care hospitals enrolled in intervention arm
	☒	☒	v. CLABSI/CUSP Collaborative Learning Sessions	10/09, 7/10, 5/11 (anticipated)
	☒	☐	vi. Coaching calls for expanded set of CLABSI/CUSP participants	Ongoing 11/09 - 5/11
	☒	☒	vii. Collect and review monthly CLABSI activity	11/09 - 5/11

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			and data reports	
	☒	☐	viii. On-going review of collaborative progress	11/09 - 5/11
	☐	☒	ix. Recruit hospital teams for second (MDRO) collaborative	4/1/10 - 6/1/10 24 facilities enrolled (17 acute care hospitals and 7 additional types including long term acute care, rehabilitation and specialty hospitals
	☒	☐	x. Strategic baseline planning for MDRO collaborative initiative	12/1/09 – 5/10/10
	☐	☒	xi. Learning sessions for MDRO collaborative	6/24, 11/10, 4/11, 10/11
	☐	☒	xii. Collect and review monthly MDRO activity and data reports	7/10 to 11/11
	☐	☒	xiii. Coaching calls for MDRO collaborative	7/10 to 11/11
	☐	☒	xiv. On-going review of collaborative progress	7/10 to 2/12

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
	☐	☒	xv. Leadership and shared learning: 1. Hospital leadership workshops 2. Hospital leadership calls 3. Final materials posted to website	 11/10, 10/11 5/10, 4/11 12/11
	☐	☒	xvi. The Massachusetts Neonatal Quality Improvement Collaborative (MassNeoQIC) represents all 10 level 3 neonatal intensive care units (NICUs) in Massachusetts. MDPH staff will work with MassNeoQIC in identification of best practices, reporting of NICU measures of infection and utilization of data for quality improvement. MDPH recognizes NeoQIC as an additional source of consultation related to infection prevention issues in neonatal intensive care.	2010
	☒	☒	xvii. Continue to collaborate with MassPro, the state Quality Improvement Organization (QIO) during the 9th Scope of Work, an initiative aimed at reducing infection and transmission rates attributable to MRSA. Prevention strategies and data collection processes developed during this project have the potential to be used to inform and guide future state initiatives.	Ongoing
	☒	☐	ii. Develop a communication strategy to facilitate peer-to-peer learning and sharing of best practices 1. The Coalition will combine strategies from the Positive Deviance approach, such as encouraging group exploration	Established and ongoing

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			and idea generation through discovery and action dialogues, with strategies from conventional quality improvement approaches, such as clear identification of aims, using small tests of change (PDSA cycles), and sharing of evidence based practices across participating teams. 2. Principles of adult and group learning will be incorporated in planning working sessions, as well as current knowledge on best approaches for collaborative learning. 3. In addition to the face to face learning sessions and coaching calls and expert technical calls, shared learning will be supported through a listserve, where participants can consult with colleagues, staff and expert faculty. Regular written hospital reports of changes tested, results, and lessons learned will be shared through the list serve and website. 4. Prevention best practices will be made available to all Massachusetts healthcare facilities via the MDPH website.	
	☐	☒	iii. Establish and adhere to feedback of a clear and standardized outcome data to track progress	2/10

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			1. MDPH epidemiologists will develop a plan and process to provide HAI data to aid in monitoring progress on reducing HAIs and evaluating prevention initiatives.	
			Other activities or descriptions (not required):	
	☐	☒	4. Develop state HAI prevention training competencies 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 ii. MDPH will engage the TAG in further defining best practices for training and certification of professionals in HAI prevention. iii. MDPH will collaborate with professional licensing organizations to identify and develop continuing education and standards for competence and practice. iv. MDPH will consult with internal and external expertise in regard to establishing requirements for education, training and certification of healthcare professionals in HAI prevention. v. Working with professional organizations and academic partners, MDPH will offer or co-	2010 - 2011 2010 - 2011 2010 - 2011 2010 - 2011 Established and ongoing

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			sponsor conferences and other opportunities in infection prevention education.	
			vi. MDPH will contact academic institutions to discuss the potential for developing competency based training and education programs based on identified needs.	2010
			vii. MDPH will promulgate regulations to require all licensed healthcare facilities to provide annual infection prevention training for all staff, appropriate to their job function, and appropriate to the work site, including but not limited to hand hygiene, newly identified best practices, cleaning and disinfection, and emerging infections. Details of these regulations will be determined through the established regulatory development and promulgation process.	7/12
			Other activities or descriptions (not required):	
Level II			5. Implement strategies for compliance to promote adherence to HICPAC recommendations	
	☐	☒	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	
	☐	☒	ii. MDPH will collaborate with professional licensing organizations, the Massachusetts Hospital Association, the Massachusetts Medical Society, the Massachusetts Nurses	2010

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			Association, the Technical Advisory Group and additional stakeholders on the development of regulatory standards.	
	☐	☒	iii. Details of proposed/considered regulations will be determined through the established regulatory development and promulgation processes.	
	☐	☒	iv. Coordinate/liaise with regulation and oversight activities such as inpatient or outpatient facility licensing/accrediting bodies and professional licensing organizations to prevent HAIs 1. Licensing bodies and organizations are all housed within MDPH and staff from these agencies participate as members of the HAI Leadership Group.	Ongoing
	☒	☒	v. Improve regulatory oversight of hospitals, enhancing surveyor training and tools, and adding sources and uses of infection control data 1. Two infection preventionist (IP) positions were created within MDPH and filled by HAI experienced nurses who developed a detailed on-site assessment survey tool for individual hospital infection prevention programs. The goal was to aid hospitals in understanding the spectrum of HAI programmatic components, policies and	2008 – 2009

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			procedures in their own operations by focusing on 20 priority best practices recommended by the Expert Panel. Site visits to each facility provided an opportunity to confirm information and provide consultation for quality improvement.	
			2. Following completion of the HAI assessments, regulatory standards and an infection prevention focused survey tool were developed. Unannounced acute care hospital surveys to evaluate compliance with HAI policies and procedures are planned to begin in 2010.	5/10 an ongoing
			3. Healthcare facilities will be held accountable under regulations of the MDPH Division of Healthcare Quality for full compliance with: A. Implementation of best practices, as well as recommendations of the Expert Panel including revisions and updates B. The Healthcare Infection Control Practices Advisory Committee (HICPAC) Guidelines C. The requirements of CMS D. Maintenance of participation in NHSN and timely and accurate completion of data collection and entry	2011

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			E. Full and complete reporting of mandated reporting measures 4. Oversight A. Incorporation of review for compliance with HAI prevention and reporting requirements in routine and other surveys B. Periodic review of HAI prevention and reporting efforts by MDPH infection preventionists C. Review of NHSN data and other reports	
	☒	☒	vi. 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. 1. New regulations require free standing ASCs to report HAIs via NHSN and infection control process measures according to guidelines presently under development. Free standing ASCs are required to report SSI from specific hernia procedures to NHSN.	6/10
			Other activities or descriptions (not required):	
	☐	☒	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	

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			regions) i. Massachusetts has well established effective prevention collaboratives working strategically at the state level with national partners to support clinicians and health care systems in the prevention of HAI. Interstate collaboration and coordination of prevention efforts provides an opportunity to strengthen partnerships, share resources and leverage learning to accelerate improvement. Preliminary discussion on the potential to share resources with additional New England states has occurred.	As needed and/or directed by CDC
			Other activities or descriptions (not required):	
	☐	☒	7. Establish collaborative to prevent HAIs in nonhospital settings (e.g., long term care, dialysis) i. The Health Care Quality and Cost Council (HCQCC) Patient Safety Committee Infection Prevention Work Group is led by members of the HAI Program Senior Leadership Group. The goal of this work group is to expand the Statewide Infection Prevention Program to settings other than acute care hospitals. Three topically focused sub work groups have been established. 1. Extended care: Includes long term	2008

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Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
			acute care hospitals (LTAC), inpatient rehabilitation facilities (IRF), nonacute hospitals, long term care (LTC) facilities and skilled nursing facilities (SNF) 2. Free standing dialysis centers 3. Free standing ambulatory surgical centers	
			Other activities or descriptions (not required): Funding does not currently support the establishment of formal collaborative learning for the additional settings referenced above. i. MDPH staff will continue to participate in training sessions for the CDC Hemodialysis Collaborative ii. MDPH staff will continue to promote participation by free standing dialysis center staff in the CDC Hemodialysis Collaborative	Ongoing Ongoing
Please also describe any additional activities, not listed above, that your state plans to undertake. Please include target dates for any new activities.				

Table 4: HAI Communication and Evaluation Planning

Planning Level	Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
Level I	☐	☒	1. Conduct needs assessment and/or evaluation of the state HAI program to learn how to increase impact i. Establish evaluation activity to measure progress towards targets 1. A systematic ongoing process of program evaluation is critical to ensuring improvement. Evaluation promotes accountability, provides the basis to assess effectiveness and will help guide decisions on how resources and efforts should be allocated. While a firm foundation to assess organizational structure, accountability, data collection and analysis, education and training, are established MDPH will formalize the evaluation process and ensure integration with all program operations.	2010
	☐	☒	ii. Establish systems for refining approaches based on data gathered 1. Formal evaluation will result in process refinement and will be used to guide and enhance policy development and implementation.	2010

		Other activities or descriptions (not required): iii. Ongoing economic analysis 1. In addition to the CMS Medicare non-payment of hospital-acquired conditions related to infection prevention (catheter-associated urinary tract infection, vascular catheter-associated infection, mediastinitis after coronary artery bypass grafting and surgical site infections following certain orthopedic procedures and bariatric surgery), the Massachusetts Cost Containment, Transparency and Efficiency Act of 2008 (Chapter 305 of the Acts of 2008) required reporting of healthcare-associated infections (and other serious adverse events defined by the National Quality Forum) with a provision for non-payment of claims for preventable HAIs and other SREs. MDPH will seek academic partners to develop a method of using information collected by CMS and the HCQCC on claims denied based on preventable HAI and SREs to assess economic impact of these events. 2. MDPH will explore further methods of assessing the economic impact of HAI and implementation of best practices in consultation with the	2010 - 2011

			TAG and CDC.	
	☒	☒	2. Develop and implement a communication plan about the state's HAI program and progress to meet public and private stakeholders needs i. Disseminate state priorities for HAI prevention to healthcare organizations, professional provider organizations, governmental agencies, non-profit public health organizations, and the public ii. Consistent with the principles of transparency and public engagement, the HAI Program has as an ultimate goal for surveillance and reporting with full public access to data on outcomes and process measures that are required by the MDPH in a format to be determined by the department with the advice of the TAG. iii. MDPH will provide on-going feedback to hospitals on issues related to data quality and completeness. iv. MDPH will provide timely data to focus and guide the collaborative prevention efforts. v. The Statewide Infection Prevention Program will issue reports of required outcome and process measures, by facility and in aggregate, at least annually. Progress toward state HAI goals will be highlighted. The first annual facility specific HAI report including SIR for SSIs and CLABSIs was released by MDPH. The 2010 Annual Report is available on line at:	Ongoing Ongoing Ongoing 6/09 2/10 4/10

			www.mass.gov/dph/dhcq.	
			vi. Assuring transparency, all reports of mandated measures will be posted on the MDPH website and links to the reports will be provided for partner websites.	2010
			vii. MDPH will evaluate penetration of reporting information and its utilization by the public through: 1. Review of consumer queries or complaints addressed to MDPH 2. Surveys of consumer knowledge, attitudes and behaviors as related to reported data 3. Questions in the 2011 Behavioral Risk Factor Surveillance System (BRFSS) addressing awareness of HAI, awareness of programs to address HAI, and awareness and use of comparative data provided by the Statewide Infection Prevention Program 4. Feedback provided by organizational partners	Ongoing
			viii. Periodic presentations are provided for the Massachusetts Public Health Council, the legal entity of the department under the Commissioner who serves as chair with authority to approve regulations. Promulgation of regulations and regulatory amendments are subject to public comment and review and approval of the Public Health Council.	2010
			ix. Massachusetts State Plan posted on MDPH	

			and federal websites.	
			Other activities or descriptions (not required):	
Level II	☒	☐	3. Provide consumers access to useful healthcare quality measures i. MDPH will make the following data available on its website and through a web site that is part of or linked to the existing HCQCC site "My Health Care Options" the following data, related to reporting requirements for acute care hospitals: 1. SSI resulting after primary hip or knee arthroplasty, by hospital for the reporting period of July 1, 2008-June 30, 2009 2. SSI resulting from abdominal and vaginal hysterectomy, in aggregate, by hospital type, July 1, 2008-June 30, 2009 3. CLABSI (Criterion 1) in ICU patients, by hospital, July 1, 2008-June 30, 2009 4. CLABSI (Criteria 1, 2 and 3) in ICU patients, in aggregate, by ICU type 5. SSI resulting from abdominal and vaginal hysterectomy, in aggregate, by hospital type, July 1, 2008-June 30, 2009 SSI resulting from CABG, in aggregate. ii. The Bureau of Healthcare Safety and Quality is in the process of developing an IT	7/10 Ongoing

			strategic plan including design of an integrated infrastructure. The intent is to improve operational efficiency and delivery of services to the public. The potential to develop improved methods of displaying HAI data will be considered. iii. MDPH will develop an approach to provide meaningful, relevant and easily understandable information for audiences without internet access.	2011
			Other activities or descriptions (not required): iv. MDPH will continue to work with the Partnership for Healthcare Excellence on HAI fact sheets, guides and public information efforts to address: 1. Hand hygiene 2. What consumers can do to participate in reducing HAI 3. Prudent use of antibiotics 4. Effective use of available sources of information to make health care decisions v. 2009 amendments to hospital licensure require hospitals to establish Patient and Family Advisory Councils. The Statewide Infection Prevention Program will explore the potential for increased patient and family participation through collaboration with these new entities.	Ongoing 2010
Level III	☒	☐	4. Identify priorities and provide input to partners to help guide patient safety initiatives and research aimed at reducing HAIs	

		Other activities or descriptions (not required): i. MDPH will use reported data, results of additional surveillance activities, and outcomes from collaborative prevention initiatives to prioritize program direction. ii. MDPH will continue to work with state and federal partners to identify emerging issues, prevention activities and areas for additional research.	Ongoing Ongoing
Please also describe any additional activities, not listed above, that your state plans to undertake. Please include target dates for any new activities.			