Hawaii State Plan to Prevent Healthcare Associated Infections

Healthcare-associated infections (HAI) are infections that patients acquire while undergoing medical treatment or surgical procedures. Although these infections are largely preventable, they create a staggering burden, both in terms of impact on human life and financial costs to the healthcare system. They are among the top ten leading causes of death in the United States, accounting for an estimated 1.7 million infections and 99,000 associated deaths in 2002[1]. CDC also estimates that HAIs add more than $17 billion to health- care costs each year[2].

The State of Hawaii currently lacks adequate information to fully document the extent of HAIs. According to the Hawaii Health Information Corporation (HHIC)—Hawaii has seen a steady increase in the number of hospital stays for Methicillin-resistant Staphylococcus aureus (MRSA) since 1995. Hospital stays for MRSA infections have nearly tripled from 2000, and increased twenty-fold from 1995. Hawaii's MRSA hospitalization rate is higher than the rest of the U.S., where rates range between 89 and 113 hospitalizations per 100,000 population (http://hhic.org.mrsa.asp).

In June 2009, the Department of Health (DOH) initiated discussions with key partners and formed an HAI Advisory Committee. In September 2009, DOH received notice of grant award in the amount of $429,587 to support the development of a state plan and to initiate learning collaboratives to address two HAI prevention targets, as established by the Department of Health and Human Services (HHS).

This plan lays a foundation for partnership between the Hawaii State Department of Health, healthcare providers, insurers, infection control specialists, community members, and policy makers to work toward a shared vision of eliminating HAI in Hawaii.

Goal 1: Develop HAI program infrastructure

For the HAI State Plan, the HAI Advisory Committee will develop a Hawaii State Plan to Prevent HAI, based on guidance from CDC, National Healthcare Safety Network **(**NHSN) requirements, best practice models for infection control, and 'culture change' models for improving safety culture in organizations. The HAI Advisory Committee will also make final recommendations for data collection and reporting mechanisms for the state.

Using grant funds from CDC, DOH will develop the Healthcare-associated Infection Prevention Project (HAIPP), with appropriate staff to oversee implementation of planning and prevention activities.

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[1] Klevens RM, Edwards J, Richards C, Horan T, Gaynes R, Pollock D, Cardo D. Estimating Health Care-Associated Infections and Deaths in U.S. Hospitals, 2002. **Public Health Reports** 2007; 122:160-166.

[2] Bhutta A, Gilliam C, Honeycutt M, et al. Reduction of bloodstream infections associated with catheters in paediatric intensive care unit: stepwise approach. *BMJ*. 334 2007:362-365.

Objective: **Develop State infrastructure planning for HAI surveillance, prevention, and control**

Strategy 1: By July 2009, establish statewide HAI prevention leadership through the formation of multi-disciplinary group or State HAI advisory committee.

Activities

- Beginning July 2009, 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).

An Advisory Committee, comprised of hospital administrators, infection preventionists, Quality Improvement Organizations,, insurers, consumers, and healthcare and DOH representatives, was formed by the Director of Health in July 2009.

- Identify specific HAI prevention targets consistent with HHS priorities.

In August and October 2009, two surveys of Advisory Committee members and infection control preventionists in hospitals statewide were conducted to ascertain the current level of existing HAI activities, use of HAI best practices, NHSN protocols and definitions, and to prioritize the six HAI targets:

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

MRSA was overwhelmingly identified as the top priority, followed by CLABSI, CAUTI, and VAP. The second target will be selected by December 2010.

Strategy 2: By January 2010, establish HAI surveillance prevention and control program.

Activities

- Designate a State HAI Prevention Coordinator

In August 2009, DOH contracted with a half-time HAI Coordinator, funded with Preventive Health and Health Services Block Grant (PHHSBG) monies until a position can be created with ARRA funding.

- 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).

Goal 2: Improve surveillance, detection, reporting, and response

Hawaii currently lacks any mechanism for statewide reporting of HAIs. Several recent attempts to mandate HAI reporting have failed to gain sufficient support in the state legislature. Recognizing that timely and accurate monitoring of HAIs is necessary to gauge progress towards HAI elimination, the HAIPP will work with partners in the healthcare system to determine appropriate reporting requirements for Hawaii.

During the first year of the HAIPP, the HAI Advisory Committee will review reporting requirements of other states to identify model legislation with the goal of enacting legislation for HAI reporting during the 2011 session. Once appropriate legislation is in place, DOH will develop administrative rules to govern HAI reporting, including privacy requirements and reporting processes. Administrative rules for HAI reporting will be developed in collaboration with healthcare stakeholders. Final implementation of HAI reporting is not expected before mid-2012 at the earliest.

As an interim process, the HAIPP will work with hospitals participating in the prevention collaboratives to provide training on NHSN for selected prevention targets. NHSN feedback allows participating hospitals to calculate infection rates and compare rates with those of other facilities.

The Advisory Committee will also work toward implementing safe harbor legislation to enable healthcare patient safety committees greater flexibility in assessing safety risks in their operations.

Objective: **Enhance State capacity for surveillance, detection, reporting, and response for HAIs**

Strategy: 1. Between January 2010 and December 2011, improve HAI surveillance.

Activities

- Work with partners including providers across the healthcare continuum, the Hawaii State legislature and CDC to develop a statutory basis for statewide HAI surveillance by May 2011.
- Implement safe harbor legislation to enable HAIPP to address safety risks in Hawaii healthcare facilities by May 2011.
- Establish protocols and provide training for health department staff to conduct HAI surveillance by June 2012.
- Develop mechanisms to protect facility/provider/patient identity when investigating incidents during the initial evaluation phase where possible to promote reporting of HAIs by June 2012.
- Improve overall surveillance data to identify and prevent HAI transmission in healthcare settings (e.g. hepatitis B, hepatitis C, multi-drug resistant organisms [MDRO], and other reportable HAIs) by January 2012.

Strategy: By June 2012, establish mechanisms or protocols for exchanging information about outbreaks or breaches among governmental partners (e.g., the State survey agency, DOH-Disease Outbreak Control Division, and State licensing boards).

Strategy: By December 2010, identify at least two priority prevention targets for surveillance in support of the HHS HAI Action Plan.

Activities

- First target: MRSA reduction in rural hospitals (specific target to be set by Advisory Committee and Collaborative members).
- Second target: To be determined by Advisory Committee prior to developing second Collaborative.

Strategy: By March 2010, adopt national standards for data and technology to track HAIs (e.g. NHSN) for the HAI Collaboratives.

Activities

- Develop metrics to measure progress towards national goals (for Collaborative participants) by June 2010.
- Establish baseline measurements for prevention targets for Collaborative participants (by June 2010.

Strategy: By March 2010, develop State surveillance training competencies.

Activities

- Conduct surveillance training with collaborative participants on NHSN, including facility and group enrollment, data collection, management, and analysis.

Strategy: By December 2010, develop tailored reports of data analyses for State, prepared by state personnel (for Collaborative participants).

Goal 3: Prevent healthcare-associated infections

HAIPP will create a single point of contact in DOH for interfacing with hospitals on HAI prevention. In developing new activities, HAIPP will coordinate with on-going HAI efforts, including the Comprehensive Unit-Based Safety Program (CUSP) to reduce central-line associated blood stream infections (CLABSI) in 17 hospital ICU units and with Mountain-Pacific Quality Health activities to reduce MRSA in two acute care hospitals.

Objective: Increase the number of healthcare facilities that implement prevention activities

Strategy: Between January 2010 and December 2011, implement Healthcare Infection Control Practices Advisory Committee (HICPAC) recommendations in participating collaborative hospitals.

Activities

- Develop strategies for implementation of HICPAC recommendation for at least two prevention targets specified by the Hawaii HAI Advisory committee (first Collaborative to begin by March 2010; second to begin by March 2011).

Strategy: By January 2010, establish prevention working group under the Hawaii HAI Advisory Committee to coordinate state HAI collaboratives.

Activities

- Assemble expertise to consult, advise, and coach inpatient facilities involved in HAI prevention collaboratives by January 2010

Strategy: By March 2010, establish HAI prevention Collaborative with at least ten hospitals

Activities

- Identify staff trained in project coordination, infection control, and collaborative coordination by March 2010

Information on HAI collaboratives was presented to hospital administrators and IC staff at the annual Hawaii Rural Health Conference in October 2009 and eight hospitals tentatively agreed to participate in a Rural Collaborative. Recruitment will continue with remaining rural hospitals.

- Develop communication strategy to facilitate peer-to-peer learning and sharing of best practices by March 2010.
- Develop model protocols to improve communication between facilities relating to transfer of infected patients between facilities (including acute care, Emergency Department, and Long Term Care facilities) by June 2010.

Goal 4: Evaluate HAI prevention efforts and increase communication about HAI

Objective: **Enhance HAI prevention through evaluation and communication.**

Strategy: Conduct needs assessment and/or evaluation of the State HAI program to learn how to increase impact of HAI prevention efforts.

Activities

- Measure progress toward benchmarks through needs assessments and satisfaction surveys of participating hospitals. Metrics will include:
    - percentage of hospitals training on and using NHSN modules
    - participation at quarterly meetings
    - percentage of collaborative hospitals reaching HAI targets

Strategy: Develop and implement a communication plan about the State's HAI program and progress to meet public and private stakeholders' needs.

Activities

- Disseminate State priorities for HAI prevention to healthcare organizations, professional provider organizations, governmental agencies, non-profit public health organizations, and the public, and publicize at an initial press conference, through press releases, and on the DOH website.

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