



ARIZONA DEPARTMENT
OF HEALTH SERVICES

State Healthcare-Associated Infection Plan Arizona

June 2016



TABLE OF CONTENTS

	Page
Acronyms	3
Executive Summary.....	4
Planning Template	6
1. Enhance HAI program infrastructure.....	6
2. Surveillance, Detection, Reporting, and Response.....	8
3. Prevention.....	12
4. Evaluation and Communication.....	14
5. Healthcare Infection Control and Response	15
Narrative Description.....	16
1. Enhance HAI program infrastructure.....	16
2. Surveillance, Detection, Reporting, and Response.....	21
3. Prevention.....	29
4. Evaluation and Communication.....	33
5. Healthcare Infection Control and Response	36
Conclusions	39
Appendix I	40
Appendix II	41
Appendix III	47

Acronyms

ADHS	Arizona Department of Health Services
APIC	Association for Professionals in Infection Control and Epidemiology
ARIDS	Arizona Infectious Disease Society
ASP	Antibiotic Stewardship Program
ASPHL	Arizona State Public Health Laboratory
AZHHA	Arizona Hospital and Healthcare Association
AzHIP	Arizona Health Improvement Plan
AzPA	Arizona Pharmacy Association
CAUTI	Catheter-Associated Urinary Tract Infection
CDC	Centers for Disease Control and Prevention
CDI	<i>Clostridium difficile</i> Infection
CLABSI	Center-Line Associated Blood Stream Infection
CMS	Centers for Medicare and Medicaid Services
CRE	Carbapenem-Resistant Enterobacteriaceae
CSTE	Council of State and Territorial Epidemiologists
DUA	Data Use Agreement
ELR	Electronic Laboratory Reporting
ESRD	End-Stage Renal Disease
FTE	Full-Time Equivalent
HAI	Healthcare-Associated Infections
HICPAC	Healthcare Infection Control Practices Advisory Committee
HIPAA	Health Insurance Portability and Accountability Act
HL7	Health Level 7
HSAG	Health Services Advisory Group
IP	Infection Preventionist
IPC	Infection Prevention and Control
IPCAC	Infection Prevention and Control Advisory Committee
MDRO	Multidrug Resistant Organism
MEDSIS	Medical Electronic Disease Surveillance Intelligence System
MRSA	Methicillin-Resistant <i>Staphylococcus aureus</i>
NHSN	National Healthcare Safety Network
OIDS	Office of Infectious Disease Services
SSI	Surgical Site Infection
STEP	Strategies for Training, Education, and Prevention
VAE	Ventilator-Associated Events
VISA	Vancomycin-Intermediate <i>Staphylococcus aureus</i>
VRSA	Vancomycin-Resistant <i>Staphylococcus aureus</i>
VRSE	Vancomycin Resistant <i>Staphylococcus epidermidis</i>

Executive Summary

Healthcare-associated infections (HAIs) are a major, yet often preventable, threat to patient safety. The Arizona Department of Health Services (ADHS) is committed to support and enhance ongoing HAI prevention efforts at the state level in collaboration with many professional organizations and the HAI Advisory Committee and Subcommittees.

In response to the increasing concerns about the public health impact of HAIs, ADHS has developed a State HAI Plan to prevent healthcare-associated infections. The State HAI Plan includes recommendations for surveillance, research, communication, and metrics for measuring progress toward national goals. Items in the plan are described as “underway” if ADHS is currently addressing them and “planned” if ADHS is planning to address them in future. With new Ebola-related infection control activities, one section, “Infection Control Assessment and Response”, has been added to the State HAI Plan, in addition to four general sections: Development or Enhancement of HAI Program Infrastructure; Surveillance, Detection, Reporting, and Response; Prevention; and Evaluation, Oversight, and Communication. Key activities for each of these sections are summarized below.

Development or Enhancement of HAI Program Infrastructure

- ADHS has a comprehensive HAI Program within the Office of Infectious Disease Services (OIDS) to address HAI surveillance, prevention, and control staffed by a program manager, two HAI epidemiologists (1.25 FTE), a CDC/CSTE Applied Epidemiology Fellow, and a CDC Public Health Associate.
- Five subcommittees were established under the [HAI Advisory Committee: End-stage renal disease \(ESRD\), Strategies for Training, Education, and Prevention \(STEP\), Surveillance, Antimicrobial Stewardship, and Long-Term Care](#) Subcommittees. ADHS HAI Program coordinates quarterly HAI Advisory Committee meetings and bi-monthly HAI Subcommittee meetings.
- ADHS, in collaboration with the HSAG, AZHHA, and others state partners, has identified catheter-associated urinary tract infection (CAUTI) and *Clostridium difficile* infections, and NHSN data validation as the state’s HAI prevention targets for 2016-2020.

Surveillance, detection, reporting, and response

- ADHS endorses NHSN as the technology standard for HAI monitoring in the state.
- ADHS HAI Program will continue to maintain passive surveillance systems for reportable HAI-causing organisms.
- ADHS HAI Program will continue to assist facilities and local health departments with HAI outbreak investigations by request.

Prevention

- The Strategies for Training, Education and Prevention (STEP) Subcommittee was established under the state HAI Advisory Committee to coordinate a state HAI collaborative to identify HAI priorities, and develop strategies and tools for HAI prevention.
- Infection Prevention Collaborative events are organized every year by ADHS HAI Program in collaboration with many strategic partners to prevent HAIs in non-hospital settings.
- ADHS HAI Program will work with existing HAI prevention collaboratives facilitated by Arizona Partners in Action to identify ways to support, contribute to, and expand existing prevention activities.

Evaluation, oversight, and communications

- Infection prevention landscape surveys are now being prepared for different types of facilities to conduct a needs assessment and evaluate the current status of infection prevention in healthcare facilities.
- ADHS HAI Program will continue to use data gathered from NHSN and surveys to identify gaps and needs to prevent HAIs. NHSN data are available through a signed [Data Use Agreement \(DUA\)](#) with the Centers for Disease Control and Prevention (CDC).
- ADHS HAI Program will continue to disseminate information regarding HAI prevention activities to partner organizations.

Infection control assessment and response

- ADHS HAI Program is currently creating an inventory of all healthcare settings in the state and assessing their infection prevention resources and activities using the infection prevention landscape survey.
- The Infectious Disease Certification Program has been established in collaboration with ADHS Division of Licensing. The creation of this system allows Arizona facilities to voluntarily receive certification, assuring the people of Arizona that a system is in place to prevent outbreaks and manage infectious diseases, now and in the future, from the time of symptom identification to diagnosis and treatment.

This document follows the structure of the HAI planning template provided by the Centers for Disease Control and Prevention. The planning template is presented followed by a narrative description of ways in which ADHS plans to address each element of the template. A timeline is included in the planning template that ADHS will address in the next five years given available resources.

1. Enhance HAI program infrastructure

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

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Establish statewide HAI prevention leadership through the formation of a multidisciplinary group or state HAI Advisory Committee	February 2010
<input checked="" type="checkbox"/>	<input type="checkbox"/>	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).	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ii. NEW: Include hospital preparedness partners (e.g., hospital/healthcare coalitions funded through the ASPR Hospital Preparedness Program). Additional representation from accrediting and/or licensing agency with surveyor authority is ideal.	September 2015
<input checked="" type="checkbox"/>	<input type="checkbox"/>	iii. NEW: Engage HAI Advisory Committee in potential roles and activities to improve antibiotic use in the state (e.g. antibiotic stewardship).	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	iv. NEW: Engage HAI Advisory Committee in activities to increase health department's access to data and subsequently use those data in prevention efforts.	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	iv. Identify specific HAI prevention targets consistent with HHS priorities.	October 2015
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Establish an HAI surveillance prevention and control program	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	i. Designate a State HAI Prevention Coordinator.	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ii. Develop dedicated, trained HAI staff with at least one FTE (or contracted equivalent) to oversee HAI activity areas (Integration, Collaboration, and Capacity Building; Reporting, Detection, Response, and Surveillance; Prevention; Evaluation, Oversight,	Ongoing

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
		Communication, and Infection Control and Response).	
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). 	Ongoing Ongoing
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).	Ongoing
X	□	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.	Ongoing

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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Improve HAI outbreak detection and investigation	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	i. Work with partners including CSTE, CDC, state legislatures, and providers across the healthcare continuum to improve outbreak reporting to state health departments.	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ii. Establish protocols and provide training for health department staff to investigate outbreaks, clusters, or unusual cases of HAIs.	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	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.	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Enhance laboratory capacity for state and local detection and response to new and emerging HAI issues.	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Improve communication of HAI outbreaks and infection control breaches.	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	i. Develop standard reporting criteria including, number, size, and type of HAI outbreak for health departments and CDC.	Ongoing

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	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).	Ongoing
<input type="checkbox"/>	<input type="checkbox"/>	4. Identify at least 2 priority prevention targets for surveillance in support of the HHS HAI Action Plan:	October 2015
<input checked="" type="checkbox"/>	<input type="checkbox"/>	i. Central Line-associated Bloodstream Infections (CLABSI)	October 2015
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ii. <i>Clostridium difficile</i> Infections (CDI)	October 2015
<input type="checkbox"/>	<input type="checkbox"/>	iii. Catheter-associated Urinary Tract Infections (CAUTI)	October 2015
<input type="checkbox"/>	<input type="checkbox"/>	iv. Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) Infections	
<input type="checkbox"/>	<input type="checkbox"/>	v. Surgical Site Infections (SSI)	
<input type="checkbox"/>	<input type="checkbox"/>	vi. Ventilator-associated Pneumonia (VAP)	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Adopt national standards for data and technology to track HAIs (e.g., NHSN).	December 2017
<input type="checkbox"/>	<input checked="" type="checkbox"/>	i. Develop metrics to measure progress towards national goals (align with targeted state goals). (See Appendix 1).	December 2017
<input type="checkbox"/>	<input checked="" type="checkbox"/>	ii. Establish baseline measurements for prevention targets.	December 2017
<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. Develop state surveillance training competencies.	Ongoing
		i. Conduct local training for appropriate use of surveillance systems (e.g., NHSN) including facility and group enrollment, data collection, management, and analysis.	Ongoing
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. Develop tailored reports of data analyses for the state or region prepared by state personnel.	To Be Determined

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	8. Validate data entered into HAI surveillance (e.g., through healthcare records review, parallel database comparison) to measure the accuracy and reliability of HAI data collection.	January 2018
<input type="checkbox"/>	<input checked="" type="checkbox"/>	i. Develop a validation plan.	January 2017
<input type="checkbox"/>	<input checked="" type="checkbox"/>	ii. Pilot test validation methods in a sample of healthcare facilities.	March 2017
<input type="checkbox"/>	<input checked="" type="checkbox"/>	iii. Modify validation plan and methods in accordance with findings from pilot project.	May 2017
<input type="checkbox"/>	<input checked="" type="checkbox"/>	iv. Implement validation plan and methods in all healthcare facilities participating in HAI surveillance.	October 2017
<input type="checkbox"/>	<input checked="" type="checkbox"/>	v. Analyze and report validation findings.	November 2017
<input type="checkbox"/>	<input checked="" type="checkbox"/>	vi. Use validation findings to provide operational guidance for healthcare facilities that targets any data shortcomings detected.	January 2018
<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. Develop preparedness plans for improved response to HAIs. 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 2017 December 2017
<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. Collaborate with professional licensing organizations to identify and investigate complaints related to provider infection control practice in non-hospital settings and set standards for continuing education and training.	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 healthcare settings (e.g., hepatitis B, hepatitis C, multi-drug resistant	Ongoing Ongoing

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>organisms (MDRO), and other reportable HAIs) across the spectrum of inpatient and outpatient healthcare settings.</p> <p>ii. Promote definitional alignment and data element standardization needed to link HAI data across the nation.</p>	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>12. Enhance electronic reporting and information technology for healthcare facilities to reduce reporting burden and increase timeliness, efficiency, comprehensiveness, and reliability of the data.</p> <p>i. Report HAI data to the public.</p>	Ongoing
<input type="checkbox"/>	<input type="checkbox"/>	<p>13. Make available risk-adjusted HAI data that enable state agencies to make comparisons between hospitals.</p>	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>14. Enhance surveillance and detection of HAIs in non-hospital settings.</p>	Ongoing

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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	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. 	Ongoing Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Establish a prevention working group under the state HAI Advisory Committee 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. 	Ongoing Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Establish HAI collaboratives with at least 10 hospitals (this may require a multi-state or regional collaborative in low population density regions). <ul style="list-style-type: none"> i. Identify staff trained in project coordination, infection control, and collaborative coordination. ii. Develop a communication strategy to facilitate peer-to-peer learning and sharing of best practices. iii. Establish and adhere to feedback from standardized outcome data to track progress. 	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Ongoing
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Develop state HAI prevention training competencies. <ul style="list-style-type: none"> i. Consider establishing requirements for the 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 	December 2017 December 2017

4. Evaluation and Communication

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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1. Conduct a needs assessment and/or evaluation of the state HAI program to learn how to increase its impact.	December 2017
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> i. Establish an evaluation activity to measure progress toward targets. ii. Establish systems for refining approaches based on the data gathered. 	December 2017
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Develop and implement a communication plan about the state’s HAI program and about 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. 	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Provide consumers access to useful healthcare quality measures. <ul style="list-style-type: none"> i. Disseminate HAI data to the public. 	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Guide patient safety initiatives. <ul style="list-style-type: none"> ii. Identify priorities and provide input to partners to help guide patient safety initiatives and research aimed at reducing HAIs. 	Ongoing

5. Healthcare Infection Control and Response (Ebola-associated activities)

Table 5: Infection Control Assessment and Response

Check Items Underway	Check Items Planned	Items Planned for Implementation (or currently underway)	Target Dates for Implementation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Create an inventory of all healthcare settings in state. The list must include at least one infection control point of contact at the facility.	Ongoing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Identify current regulatory/licensing oversight authorities for each healthcare facility and explore ways to expand oversight.	Ongoing
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	3. Assess readiness of Ebola-designated facilities within the state. <ul style="list-style-type: none"> i. Use CDC readiness assessment tool and determine gaps in infection control. ii. Address gaps (mitigate gaps). iii. Conduct follow-up assessments. 	Initiated December 2015 Ongoing December 2016 January 2017
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	4. Assess outbreak reporting and response in healthcare facilities. <ul style="list-style-type: none"> i. Use standard assessment tool and determine gaps in outbreak reporting and response. ii. Address gaps (mitigate gaps). iii. Track HAI outbreak response and outcome. 	December 2016 December 2016 January 2017 Ongoing

Develop or enhance HAI program infrastructure

1. Establish statewide HAI prevention leadership through the formation of a multidisciplinary group or state HAI advisory council

In September 2008, the Arizona Legislature passed Senate Bill 1356, which created the Infection Prevention and Control Advisory Committee (IPCAC). Later in 2010, IPCAC evolved to form Arizona Healthcare-Associated Infection (HAI) Advisory Committee. The HAI Advisory Committee's mission is to reduce the number and impact of HAIs in Arizona by convening a multidisciplinary group of partners to standardize best practices for monitoring and preventing HAIs, educate the public and healthcare providers on effective methods to reduce HAIs, and proactively address emerging HAI issues. The Arizona HAI Advisory Committee held its first meeting on February 24th, 2010. Five subcommittees have been established under the HAI Advisory Committee: End-Stage Renal Disease (ESRD), Strategies for Training, Education, and Prevention (STEP), Surveillance, Antimicrobial Stewardship, and Long-Term Care Subcommittees. ADHS HAI Program coordinates quarterly HAI Advisory Committee meetings and bi-monthly HAI Subcommittee meetings for one hour.

Arizona's Advisory Committee and Subcommittees continue to maintain diverse membership. The committee strives to retain the original IPCAC members and was expanded to include additional partners. The committee now includes 24 actively participating committee members. These members include:

- infection control practitioners from public and private hospitals
- representatives from the state and local health departments
- pharmacists with expertise in antibiotic resistance programs
- physicians with expertise in infectious disease and epidemiology
- representatives from a for-profit long-term care facility with expertise in infection control
- representatives from a not-for-profit long-term care facility with expertise in infection control
- representatives from assisted living facilities with expertise in infection control
- representatives from an organization that represents hospitals in the state
- representatives from a quality improvement organization

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)

The ADHS HAI Program has collaborated with strategic partners to coordinate statewide events to address HAI needs throughout the state. This is exemplified by the following statewide training events:

- 2014 and 2015 Arizona Long-Term Care Infection Prevention and Control Collaborative: These events were held in collaboration with Division of Licensing, Public Health Emergency Preparedness Program, Diagnostic Laboratory and Radiology and APIC Consulting Inc. These events educated over 200 attendees who are worked on long-term care facilities on current infection prevention and control core concepts and best practices.
- 2015 ADVICE Collaborative III: The 90 minute breakout session at this annual event addressed infection prevention best practices and a collaborative partnership between ADHS and ESRD facilities for over 150 ESRD providers from throughout the state.
- 2015 Annual NHSN Training Workshop: This event was held in collaboration with our local APIC Grand Canyon Chapter and QIO (HSAG). This training event provided highlights and summaries of recently updated information based on the three-day NHSN training offered in Atlanta by the Centers for Disease Control and Prevention in February 2015. This training was attended by 98 Arizona infection preventionists and other health partners.
- 2015 Dental Infection Prevention and Control Collaborative: This event was held in collaboration with Midwestern University, Maricopa County Department of Public Health, Pima County Health Department, Organization for Safety, Asepsis and Prevention, Arizona School of Dentistry and Oral Health, and Inter Tribal Council of Arizona. This training event educated 110 dental providers and staff on the key concepts and basic principles for infection prevention.

The HAI Program will continue to work with partners and the HAI Advisory Committee and Subcommittees to assess training needs and coordinate trainings. Provision of additional training will expand the general infection prevention, control and HAI surveillance knowledge base among healthcare professionals in Arizona to consequently reduce HAI incidence in the state.

ii. Include hospital preparedness partners (e.g., hospital/healthcare coalitions funded through the ASPR Hospital Preparedness Program). Additional representation from accrediting and/or licensing agencies with surveyor authority is ideal

The ADHS Bureau Chief of Public Health Emergency Preparedness has been added to the HAI Advisory Committee, and will shortly be joined by the Deputy Bureau Chief of Public Health Emergency Preparedness.

iii. Engage HAI Advisory Committee in potential roles and activities to improve antibiotic use in the state (antibiotic stewardship)

The Antimicrobial Stewardship Subcommittee was established under the HAI Advisory Committee to educate providers and the public about antibiotic use. The Antimicrobial

Stewardship Subcommittee consists of a group of medical, pharmacy, microbiology and nursing professionals. This panel of experts provides information, best practices, and technical assistance concerning stewardship to healthcare facilities. ADHS HAI Program facilitates regular HAI Antimicrobial Stewardship Subcommittee meetings bi-monthly and reports progress of their activities to the HAI Advisory Committee.

The HAI Program maintains partnerships to enhance antimicrobial stewardship activities in Arizona, including those with the Arizona Infectious Disease Society (ARIDS), Arizona Hospital and Healthcare Association (AZHHA), and the Arizona Pharmacy Association (AzPA). The HAI Program worked with the Antimicrobial Stewardship Subcommittee to develop and distribute numerous antimicrobial stewardship resources including: Improving the Quality of Antibiotic Prescribing: Empiric and Pathogen-Directed Antimicrobial Therapies; an antibiogram toolkit; a pamphlet for the public entitled “Do your Bugs need Drugs?”; and an associated Arizona-focused FAQ webpage. These resources have been distributed through partner organizations and are also available on the HAI Program website (www.preventHAiaz.gov).

iv. Engage the HAI Advisory Committee in activities to increase the health department’s access to data and subsequently use those data in prevention efforts

ADHS HAI Program maintains access to data reported to NHSN from healthcare facilities in the state of Arizona through our established [Data User Agreement \(DUA\)](#). The data are used for HAI surveillance and prevention purposes only. With the help of the HAI Advisory Committee, hospitals are encouraged to participate in voluntary reporting of healthcare-associated infections to NHSN. Currently, approximately 83 facilities are voluntarily reporting HAI data to NHSN. They are:

- 54 General Hospital (including acute, trauma and teaching)
- 10 Long-Term Acute Care Hospital
- 8 Rehabilitation Hospital
- 1 Oncology Hospital
- 2 Critical Access Hospital
- 2 Orthopedic Hospital
- 3 Surgical Hospital
- 2 Psychiatric Hospital
- 1 Children Hospital

ADHS HAI Program will aggregate the information reported to NHSN and use those data to prioritize prevention programs and to understand complementary HAI prevention projects.

v. Identify specific HAI prevention targets consistent with HHS priorities

ADHS, in collaboration with the HSAG, AZHHA, and others state partners, has identified catheter-associated urinary tract infection (CAUTI) and *Clostridium difficile* infections, and NHSN data validation as the state’s HAI prevention targets for 2016-2020.

2. Establish an HAI surveillance prevention and control program

ADHS has a comprehensive HAI Program within the Office of Infectious Disease Services (OIDS) to address HAI surveillance, prevention, and control staffed by a program manager, two HAI epidemiologists (1.25 FTE), a CSTE/CDC fellow, and a CDC Public Health Associate.

i. Designate a State HAI Prevention Coordinator

Eugene Livar has been the State HAI Prevention Coordinator (HAI Program Manager) since 2013. He leads all HAI activities.

ii. Develop dedicated, trained HAI staff with at least one FTE (or contracted equivalent) to oversee HAI activities areas (Integration, Collaboration, and Capacity Building; Reporting, Detection, Response, and Surveillance; Prevention; Evaluation, Oversight, Communication, and Infection Control)

The HAI Program has recently been expanded to include four full-time staff and one part-time staff: one full-time HAI epidemiologist, one part-time HAI epidemiologist, a Council of State and Territorial Epidemiologist (CSTE) Applied Epidemiology Fellow, and a CDC Public Health Associate.

The HAI Coordinator, HAI epidemiologist, and CSTE Fellow attended the HAI & Ebola Grantees' Meeting at Centers for Disease Control and Prevention (CDC) Atlanta in November 2015.

3. Integrate laboratory activities with HAI surveillance, prevention, and control efforts

Per the Arizona Administrative Code, laboratories are required to report invasive methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant *Staphylococcus aureus* (VRSA), vancomycin-intermediate *Staphylococcus aureus* (VISA), vancomycin-resistant *Staphylococcus epidermidis* (VRSE), invasive *Streptococcus* Group A, invasive *Streptococcus* Group B in infants <90 days of age, and invasive *Streptococcus pneumoniae* cases to ADHS. The Office of Infectious Disease Services within ADHS conducts routine surveillance for these infectious agents and monitors trends in antibiotic resistance.

The Arizona State Public Health Laboratory (ASPHL) has the capability to perform VISA/VRSA confirmatory testing.

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)

ADHS has worked with representatives at ASPHL, non-profit organization such as Translational Genomics Research Institute (TGen) and commercial laboratories that perform testing for many healthcare facilities in the state to develop an enhanced partnership between organizations. The goal of this partnership is to enhance antibiotic resistance testing in the state for organisms or antibiotics which are currently unavailable at ASPHL. This mechanism supports all partners to establish a system during

HAI outbreaks whereby ASPHL can forward specimens to the commercial laboratory for antibiotic resistance testing. In return, the commercial laboratory can forward select specimens to ASPHL for PFGE analysis and to TGen for sequencing.

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)

ADHS HAI Program regularly meets with ADHS Division of Licensing, HAI Advisory Committee and Subcommittees, and AzHIP members to coordinate mechanisms for increased HAI prevention.

ADHS has had an agreement between OIDS and Division of Licensing concerning infectious disease investigations. This agreement is highlighted as a collaborative algorithm (Appendix I) in the reporting and investigation of infectious disease exposure and outbreaks. Through this algorithm, the HAI Program works closely with Division of Licensing to allow staff to investigate HAI outbreaks and provide guidance on HAI prevention without facilities fearing penalties incurred by reporting the outbreak. This process will establish trust between healthcare facilities and the Division of Licensing and strengthen relationships between healthcare facilities, Division of Licensing, and OIDS to increase patient safety and reduce HAI incidence.

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

ADHS facilitates use of NHSN for electronic reporting of HAIs. Currently, 83 healthcare facilities report healthcare-associated infections to NHSN. ADHS has collaborated with local partners to provide NHSN training to infection preventionists and other health partners since 2011. The purpose of this training is to facilitate use of standards-based formats to report healthcare-associated infections such as CLABSI, CAUTI, SSI, CLIP, VAE, MRSA and *C. difficile*.

ADHS also facilitates the use of the Medical Electronic Disease Surveillance Intelligence System (MEDSIS) and Electronic Laboratory Reporting (ELR) System for electronic reporting of diseases and laboratory data. MEDSIS training is provided by ADHS staff regularly and as needed by partners and stakeholders. For electronic laboratory reporting, the ADHS implementation team provides assistance with HL7 validation,

required vocabulary, and secure message transport during the set-up period for each laboratory.

State planning for surveillance, detection, reporting, and response for HAIs

1. Improve HAI outbreak detection and investigation

ADHS provides support, technical assistance, and outbreak investigations as needed, with local and federal public health partners. The program has also provided two HAI-specific outbreak investigation trainings to inter-agency, local health departments, and local APIC chapter members and plans to continue the process of reviewing, revising and updating the current outbreak investigation protocol. A collaborative review of “Arizona Department of Health Services (ADHS) Healthcare Facility Infectious Disease (ID) Exposure Investigation Protocol: Coordination between Office of Infectious Disease Service (OIDS) and Licensing” with ADHS Division of Licensing has been completed. ADHS HAI Program will continue to review current resources to complete and establish a standard HAI outbreak protocol.

i. Work with partners including CSTE, CDC, state legislatures, and providers across the healthcare continuum to improve outbreak reporting to state health departments

The HAI Program participates regularly in conference calls with the CSTE HAI Subcommittee in order to learn from experiences of other states. Participation with CSTE calls allows ADHS HAI Program to identify best practices for outbreak reporting and apply lessons learned from other states knowledge and experience.

ii. Establish protocols and provide training for health department staff to investigate outbreaks, clusters, or unusual cases of HAIs

ADHS has provided two HAI-specific outbreak investigation trainings to various ADHS staff, local health departments, and local APIC chapter members. In addition, every year, ADHS offers general outbreak investigation training to public health nurses, environmental health specialists, epidemiologists, and other public health staff with communicable disease roles and responsibilities.

Every year, outbreak investigation manuals are reviewed to update new information. The Office of Infectious Disease Services (OIDS) and the ADHS Division of Licensing recently collaboratively reviewed “Arizona Department of Health Services Healthcare Facility Infectious Disease Exposure Investigation Protocol”.

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

Existing mechanisms are in place to protect the privacy of patients, facilities and providers when investigating HAIs. Protections afforded by the Health Insurance

Portability and Accountability Act (HIPAA) protect a patient's personal health information from being disclosed to individuals not involved with the patient's care. In order to protect facility and provider identity in potential outbreak situations, ADHS staff generally consult with the facility's IPs about strategies that work best for them. In many instances, the presence of state health department officials can raise suspicions of patients and others, who may conclude that there is a problem at the facility. For this reason, Office of Infectious Disease Services staff entering a facility during an investigation typically attempt to uphold a degree of anonymity by not drawing attention to their status as a state health department worker. This can include removal of an ADHS badge prior to entering facilities, and dressing in plain clothes when permitted. ADHS will continue to work with facility IPs in order to protect provider and facility privacy where possible.

ADHS and local health departments have established, secure email communication with IPs that allows for information that is shared between IPs and the health department to be protected.

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)

Hepatitis B, hepatitis C, *Legionella* spp., invasive MRSA and VISA/VRSA are reportable diseases in Arizona. Reports of these diseases are reviewed to identify and prevent HAI outbreaks or transmission in healthcare settings. HAI outbreaks may be detected by ADHS if an Office of Infectious Disease Services epidemiologist identifies a pattern in laboratory reports or identifies an increased number of cases reported, prompting further investigation. Facilities may also voluntarily report an outbreak to ADHS or to the local health department. For HAI-causing organisms such as *Legionella* spp. and *Acinetobacter* spp., ADHS relies primarily on appropriate reporting to detect an outbreak. Healthcare providers, healthcare institutions, and correctional facilities are required to report outbreaks of selected infectious diseases or conditions to their local health department under Arizona Administrative Code (A.A.C.) R9-6-202 and Arizona Revised Statutes (A.R.S.) Title 36.

2. Enhance laboratory capacity for state and local detection and response to new and emerging HAI issues

In order to enhance laboratory capacity for state and local detection of and response to HAIs, ADHS has established relationships with multiple laboratories in the state. Invasive MRSA specimens that are confirmed in hospital or commercial laboratories must be reported to ADHS. Hospital or commercial laboratories with suspected VISA/VRSA results are required to send the specimen to the ASPHL for confirmation, per A.A.C. 204. ADHS has also collaborated with non-profit organization such as TGEN to sequence isolates during several outbreaks.

Recently, CRE case definition has been added to communicable disease list as non-reportable. Unlike MRSA and VISA/VRSA, facilities are not required to report CRE to their local health department. However, facilities can send CRE specimen to ASPHL for confirmatory testing.

3. Improve communication of HAI outbreaks and infection control breaches

Several outbreak investigations have been led or supported by the ADHS HAI Program after the successful communication of HAI outbreaks and infection control breaches by healthcare facilities. In all cases, patient and facility confidentiality were maintained throughout the investigation process. In coordination with local public health partners, the HAI Program was able to identify the source of infection, provide infection control recommendations to the facility, and assist in publishing reports to inform the scientific and medical community. The HAI Program will continue to investigate outbreaks and effectively communicate results to the scientific community while maintaining patient and facility confidentiality.

i. Develop standard reporting criteria including, number, size, and type of HAI outbreak for health departments and CDC

A general outbreak protocol has been developed to standardize reporting of HAI outbreaks to local health departments and the CDC. In addition, an outbreak module has been developed in MEDSIS to facilitate easy and comprehensive reporting of outbreaks, communications between state and local health officials, and the tracking of outbreak summary information.

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)

ADHS and local health departments have established secure communication with IPs that allows for information shared between IPs and the health department to be protected. HIPAA regulations allow for protected information exchange between state and local health departments and IPs for public health purposes. In addition, ADHS HAI Program has and will continue to protect facility identity throughout the course of an outbreak investigation.

Division of Licensing has agreed to communicate infection control breaches with ADHS HAI Program so that the source of infection can be identified and infection control recommendations provided. These efforts have been supported by the recent [May 30, 2014 Centers for Medicare and Medical Services \(CMS\) memorandum](#) addressing infection control breaches which warrant referral to public health authorities.

4. Identify at least 2 priority prevention targets for surveillance in support of the HHS HAI Action Plan

With the help of HSAG, AZHHA and other state partners, the ADHS HAI Program identified two priority prevention targets for surveillance in support of the HHS HAI

Action Plan: Catheter-Associated Urinary Tract Infection (CAUTI) and *Clostridium difficile* infections. Several strategies, tactics, and actions will be identified and performed in order to achieve the established goals.

5. **Adopt national standards for data and technology to track HAIs (e.g., NHSN).**

ADHS endorses NHSN as the technology standard for HAI monitoring in the state. Approximately 60 facilities in the state are currently using NHSN to monitor one or more HAIs. In partnership with other organizations, such as Arizona's quality improvement organizations and hospital associations, the HAI Program is encouraging other non-hospital healthcare settings to participate in NHSN to report HAIs.

i. **Develop metrics to measure progress towards national goals aligned with targeted state goals (See Appendix 1)**

ADHS HAI Program is working with HSAG, AZHHA and other state partner to develop metrics to measure progress towards national and established state goals.

ii. **Establish baseline measurements for prevention targets**

New baseline data provided by NHSN (2015 data) will be used to establish baseline measurement for prevention targets.

6. **Develop state surveillance training competencies**

Facilities must have knowledge of conditions reportable to ADHS under the Arizona Administrative Code in order to comply with basic reporting requirements. The reporting requirements are available on the ADHS website and are promoted during activities such as setting up an electronic laboratory reporting feed, or enrolling in MEDSIS to report cases electronically.

In order to participate in NHSN reporting, healthcare personnel should complete basic training in NHSN. Several trainings were offered by ADHS HAI Program, in collaboration with state partners, to train designated healthcare facility staff for reporting HAIs in NHSN. The ADHS HAI Program staff will continue to attend training opportunities through CDC's Division of Healthcare Quality Promotion regarding NHSN, enrollment, and user functionality in order to successfully train and assist healthcare personnel.

i. **Conduct local training for appropriate use of surveillance systems (e.g., NHSN) including facility and group enrollment, data collection, management, and analysis**

Since 2011, several trainings were offered by ADHS HAI Program and strategic partners to train facilities for reporting HAIs in NHSN. These events were organized specifically for healthcare personnel who use NHSN. These trainings examined new HAI reporting definitions and reviewed the Centers for Medicare and Medicaid Services reporting requirements for HAI surveillance using NHSN.

In order to appropriately develop training competencies, the ADHS HAI Program will continue to attend trainings offered through CDC's Division of Healthcare Quality

Promotion regarding NHSN, enrollment, and user functionality. In addition, the HAI Program staff has been, and will continue to participate on monthly CSTE HAI Subcommittee calls in order to understand other states' experiences with NHSN and to apply and communicate lessons learned to Arizona facilities interested in participating in NHSN.

7. Develop tailored reports of data analyses for the state or region prepared by state personnel

ADHS HAI Program is planning to prepare an annual state and regional HAI report using NHSN data. In addition, infection prevention landscape surveys are now being distributed to acute care and long-term care facilities to evaluate the current status of infection prevention. This process will be continued to other healthcare settings such as ESRD and outpatient treatment surgical centers. Once data collection and analysis are complete, aggregate reports will be developed summarizing the findings.

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

ADHS signed a DUA with CDC in October 2012 to gain access to NHSN data; data was made available in fall of 2015. Real-time NHSN data is now available to ADHS. NHSN validation has not yet been pursued because the data were only recently obtained.

ADHS HAI Program is now reviewing NHSN validation resources and collaborating with statewide partners to develop an Arizona-specific NHSN validation protocol. After the protocol is finalized, a memorandum of understanding with two selected healthcare facilities will be obtained to support validation efforts. Then, ADHS will move forward to complete validation of an agreed-upon component of NHSN data (CLABSI, CAUTI, SSI, MDRO, or CDI) with these facilities. The validation process will assess the accuracy and quality of data submitted to NHSN, identify unreported HAIs, provide hospitals with information to help them correctly use NHSN, provide education to IPs and other hospital staff to improve data accuracy and quality, and make recommendations for improvements if data accuracy and/or quality issues are discovered. Simultaneously, ADHS will collaborate with partners and utilize existing national resources to promote self-validation by healthcare facilities reporting to NHSN.

i. Develop a validation plan

ADHS HAI Program plans to work with state partners to develop an Arizona-specific validation plan to be completed by June 2016.

ii. Pilot test validation methods in a sample of healthcare facilities

After the protocol is finalized, a memorandum of understanding with healthcare facilities will be obtained to support validation efforts. Selected healthcare facilities will be chosen to pilot test validation methods before distributing and implementing the validation plan throughout Arizona healthcare facilities.

- iii. **Modify validation plan and methods in accordance with findings from pilot project**
With the results obtained from pilot test validation, the validation plan and methods will be modified as necessary.
 - iv. **Implement validation plan and methods in healthcare facilities participating in HAI surveillance**
After the final validation plan is approved by the HAI Advisory Committee, the plan will be distributed and voluntarily implemented in Arizona healthcare facilities participating in HAI surveillance.
 - v. **Analyze and report validation findings**
All data collected from implementation of the validation plan will be analyzed to determine the true infection rate at each facility. The aggregate results will be reported to all Arizona healthcare facilities reporting data to NHSN and to develop appropriate educational program/materials.
 - vi. **Use validation findings to provide operational guidance for healthcare facilities that targets any data shortcomings detected**
ADHS HAI Program, in conjunction with the HAI Advisory Committee and other strategic partners, will develop an education program based on the results of the project.
9. **Develop preparedness plans for improved response to HAI**
ADHS HAI Program is partnering with Public Health Emergency Preparedness (PHEP) for improved response to HAIs engaging different partner organizations. Within a preparedness plan for improved response to HAI, a tiered response system will be established. This plan will provide guidance for responding serious infection control breaches, clusters and outbreaks. This plan will provide recommendations in the development of plans not only to respond to an emergency, but also, will outline how organizations can plan for preventing, protecting against, mitigating the impact of and recovering from these situations.
- 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**
The ADHS HAI Program will collaborate with the Division of Licensing Services to determine a definition for a “serious infection control breach”. By working with critical entities, including the HAI Advisory Committee and Licensing, the ADHS HAI Program can clearly define processes for improved response to serious infection control breaches that are agreeable to all parties involved.
10. **Collaborate with professional licensing organizations to identify and investigate complaints related to provider infection control practice in non-hospital settings and set standards for continuing education and training**

HAI Program will continue to work with ADHS Division of Licensing to identify and investigate HAI outbreaks and provide guidance on HAI prevention in long-term care facilities and other non-hospital healthcare settings. HAI Program is also partnering with the Division of Licensing to identify mechanisms for quality improvement.

While facilities are required to inform ADHS or the local health department of individual cases or outbreaks of specified reportable diseases, many are reluctant to report cases or outbreaks of HAIs that are not explicitly reportable to the health departments due to concerns regarding confidentiality of investigations and the potential involvement of ADHS' Division of Licensing. However, HAI reporting can be mutually beneficial for facilities, ADHS, and local health departments. Once alerted to potential HAI outbreaks, ADHS and local health department staff can assist facilities with investigations and make recommendations for infection control and prevention. ADHS will gain a better understanding of the HAI burden in the state in order to target future surveillance, prevention, and control initiatives. In addition, ADHS can share expertise with facilities over time by connecting facilities with similar outbreaks to identify solutions and share strategies established in previous investigations. ADHS has had an agreement between OIDS and Division of Licensing concerning infectious disease investigations. This agreement is highlighted as a collaborative algorithm (Appendix I) in the reporting and investigation of infectious disease exposure and outbreaks.

11. Adopt integration and interoperability standards for HAI information systems and data sources

Several programs in ADHS are working together to improve overall use of surveillance data. ADHS HAI Program and Hepatitis Program are working together to perform surveillance for HAI-associated hepatitis B and hepatitis C. HAI Program is also working with the foodborne illness and vaccine-preventable disease programs to investigate gastroenteritis and vaccine-preventable disease outbreaks in healthcare settings.

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

Hepatitis B, hepatitis C, invasive MRSA, and VISA/VRSA are reportable diseases in Arizona. ADHS HAI Program will continue to perform passive surveillance of MRSA and VISA/VRSA. The Hepatitis Program will continue to perform surveillance for hepatitis B and C. These two programs will collaborate on investigating outbreaks associated with hepatitis, as appropriate.

ii. Promote definitional alignment and data element standardization needed to link HAI data across the nation

With the use of NHSN, facilities are required to use NHSN surveillance and reporting definitions. In order to ensure facilities are applying the surveillance and reporting definitions correctly, data validation will be conducted in 2016. Education sessions will

be provided to those facilities where gaps are identified during these validation projects and efforts.

12. Enhance electronic reporting and information technology for healthcare facilities to reduce reporting burden and increase timeliness, efficiency, comprehensiveness, and reliability of the data

Many laboratories are already reporting infectious diseases electronically to the state health department. Electronic Laboratory Reporting (ELR) is the automated, secure electronic transmission of laboratory reports identified as reportable conditions from laboratories to public health, using standardized HL7 messages. ADHS has implemented ELR to receive reportable disease results from clinical and reference laboratories and triage them into the epidemiology program surveillance databases, including the Medical Electronic Disease Surveillance Intelligence System (MEDSIS). More than 50% of laboratory results are received by ELR, and the ADHS Electronic Disease Surveillance Program continues to work with laboratories to implement additional feeds. ADHS has demonstrated that ELR results are received more quickly than other laboratory reports, in addition to other benefits of ELR.

In addition, providers are encouraged to report cases of disease through web entry using MEDSIS, a secure, web-based, centralized, person-based disease surveillance system for Arizona. MEDSIS is a statewide system hosted and supported by ADHS for use by ADHS and local health departments for disease surveillance, and for individuals and institutions responsible for reporting communicable diseases. It is a secure system that is designed to ensure that patient information is kept confidential. MEDSIS is also used for communicating case information with health officials in Sonora, Mexico, regarding cases of bi-national interest.

Facilities are encouraged to report HAIs in NHSN. Approximately 82 facilities are currently using NHSN to monitor one or more HAIs. With partnership with other organizations such as HSAG and ESRD Network 15, ADHS HAI Program is encouraging other non-hospital healthcare settings to participate in NHSN to report HAIs.

i. Report HAI data to the public

HAI Advisory Committee and Subcommittee meetings are open to public. Those who are interested can participate to gain knowledge and review recent updates and activities of ADHS HAI Program. Minutes of these meetings are also posted on the ADHS website and available to the public.

CDC uses NHSN data to develop a national and state HAI report. This report is available publicly on the CDC and ADHS website. HAI progress report is a snapshot of how each state is doing in eliminating HAIs. Each report describes the progress in preventing the following types of HAIs: CLABSI, SSI, CAUTI, *C. difficile* and MRSA. Due to limitations on the NHSN data-use agreement, ADHS is unable to use NHSN data to identify, compare, and share quality metrics between different healthcare facilities.

However, the Centers for Medicare and Medicaid Services Hospital Compare data is available to compare healthcare quality measures. The link to this website is also available on the ADHS website. ADHS HAI Program is currently working on making a Hospital Compare toolkit to guide the public on using the Hospital Compare website.

13. Make available risk-adjusted HAI data that enable state agencies to make comparisons between hospitals

Arizona's current data use agreement with the CDC for access to NHSN data expressly prohibits the publication of data identifiable by facility. However, these data are publically available through the national Hospital Compare system.

14. Enhance surveillance and detection of HAIs in non-hospital settings

ADHS HAI Program is organizing and will continue to organize several workshops to encourage all non-hospital healthcare setting such as long-term care facilities and outpatient hemodialysis centers to provide education and key tools to strengthen infection prevention actions against HAIs. These workshops are designed to help participants understand NHSN and surveillance management and encourage reporting of HAIs in NHSN.

State planning for HAI prevention activities

1. Implement HICPAC recommendations

ADHS encourages healthcare facilities to use CDC/HICPAC recommendations to prevent and control healthcare-associated infections. Many healthcare facilities have already implemented HICPAC recommendations. ADHS will provide technical assistance and continue educational efforts to assist healthcare facilities in implementing these recommendations throughout Arizona as requested.

i. Develop strategies for implementation of HICPAC recommendations for at least 2 prevention targets specified by the state multidisciplinary group

Different strategies are being used to encourage facilities to use HICPAC recommendations. The Strategies for Training, Education and Prevention (STEP) Subcommittee was established in order to evaluate current HAI prevention strategies utilized by Arizona healthcare facilities and create toolkits for healthcare providers (including hospitals, long-term care facilities, assisted living facilities, dialysis centers, and ambulatory surgery centers) that incorporate current HAI prevention, evidence, guidelines, and best practices related to infection control.

ADHS HAI Program has engaged with several state partners to encourage providers to evidence based practices to improve infection control practices. Toolkits such as [Clostridium difficile toolkit](#), [hand hygiene poster](#), [standard precautions toolkit](#), [Clostridium difficile infection in long-term care facilities](#) and [Living with C. difficile](#) are developed to enhance implementation of HICPAC recommendations for *C. difficile*. In addition to that, several other [toolkits](#) are developed to increase implementation of

HICPAC recommendations. ADHS HAI Program will continue to work with state partners to identify the gaps and produce/distribute educational materials as needed to reduce HAIs.

2. Establish prevention working group under the state HAI advisory council to coordinate state HAI collaboratives

The Strategies for Training, Education and Prevention (STEP) Subcommittee was established under the state HAI Advisory Committee to coordinate state HAI collaboratives. ADHS facilitates this subcommittee, which meets bi-monthly. This subcommittee works to identify HAI priorities, and develop strategies and tools for HAI prevention.

With the help of HSAG, AZHHA and other state partners, Arizona Partners in Action has been established in order to prevent CAUTI and *C. difficile* and other HAI infections in Arizona. The main goal of this collaborative is to make Arizona the healthiest state in the nation by providing technical assistance to facilities and linking providers to evidence based practices to improve implementation of infection control practices in existing and newly constructed healthcare facilities.

i. Assemble expertise to consult, advise, and coach inpatient healthcare facilities involved in HAI prevention collaboratives

Experts from several organizations such as HSAG, Arizona Healthcare Association (AHCA), Rural Health, Covenant Health Network, APIC Grand Canyon Chapter, AZHHA and other public health partners are in steering committee of Arizona Partners in Action. This steering committee meets frequently to discuss about HAI prevention, harm reduction and patient safety and are always available to consult, advise and provide technical assistance to healthcare facilities involved in HAI prevention collaboratives to improve implementation of infection control practices.

3. Establish HAI collaboratives with at least 10 hospitals (this may require a multi-state or regional collaborative in low population density regions)

STOP CAUTI Campaign has been established by Arizona Partners in Action in order to decrease catheter-associated infections in hospitals. More than 10 hospitals are participating in this collaborative. Similar type of collaborative is being established to monitor the *C. difficile* infection in hospital and long-term care facilities. Hospitals with high burden of HAIs, including *C. difficile* infection will be targeted. Methodology for targeting will be developed in collaboration with CDC and HRET.

i. Identify staff trained in project coordination, infection control, and collaborative coordination

Experts from different organizations such as AZHHA, HSAG, ADHS etc., are identified as project and collaborative coordinators. The collaborative helps us to accelerate current strategies for achieving reductions in the overall burden of HAIs and strengthening infection control practices.

ii. Develop a communication strategy to facilitate peer-to-peer learning and sharing of best practices

Regular communications are in place to facilitate peer-to-peer learning and sharing of best practices with participating facilities in order to reduce HAIs such as CAUTI and *C. difficile*. Different organizations, such as state ADHS, QIO, hospital association, local APIC chapter etc. work collaboratively to facilitate peer-to-peer learning and sharing of best practices. A state communication HAI listserv is also used to communicate with different stakeholders and partners.

iii. Establish and adhere to feedback from standardized outcome data to track progress

NHSN data provided by participating facilities are being/will be used to track progress of participating facilities. Short report with progresses and deficiencies will be provided to the facility in order to enhance the HAI prevention activities.

4. Develop state HAI prevention training competencies

ADHS HAI Program is working with different partner organizations and the HAI Advisory Committee to 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

ADHS plans to work with the HAI Advisory Committee to establish recommendations for the education and training of healthcare professionals in HAI prevention.

5. Implement strategies for compliance to promote adherence to HICPAC recommendations

Different strategies are being used to promote adherence to HICPAC recommendations. Infectious Disease Certification Program is established and several infection prevention and control (IPC) collaborative events (long-term care IPC collaborative, ADVICE collaborative, Dental IPC collaborative) are organized annually. Many education materials and resources are distributed to various healthcare facilities and are also available on the ADHS website.

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

The voluntary Infectious Disease Certification Program has been established in collaboration with the ADHS Division of Licensing to maintain certain standards to prevent and treat infectious diseases in healthcare facilities. This certification program will address areas of responsibility in a comprehensive and progressive approach to systems of care, including patient care, continuing education, professional requirements, community involvement, and evaluation of care and services. The

guidelines established are based on rules, regulations, and best practices identified to achieve the best outcomes for infectious disease prevention and control. These guidelines are intended to be adapted to various infectious disease illnesses or situations, in order to take into account the needs and resources particular to each community and level of certification.

ii. Coordinate/liaise with regulation and oversight activities such as inpatient or outpatient facility licensing/accrediting bodies and professional licensing organizations to prevent HAIs

ADHS HAI Program regularly meets with ADHS Division of Licensing to coordinate mechanisms for increased HAI prevention. HAI program staff closely work with licensing staff to identify solutions which allow staff to investigate HAI outbreaks and provide guidance on HAI prevention without facilities fearing penalties incurred by reporting the outbreak. ADHS has had an agreement between OIDS and Division of Licensing concerning infectious disease investigations. This agreement is highlighted as a collaborative algorithm in the reporting and investigation of infectious disease exposure and outbreaks. This process could establish trust between healthcare facilities and the Division of Licensing and a stronger relationship between ADHS HAI Program and the Division of Licensing, which both strive to increase patient safety and reduce HAI incidence.

iii. Improve regulatory oversight of hospitals, enhance surveyor training and tools, and add sources and uses of infection control data

ADHS HAI Program is working with ADHS Division of Licensing to improve regulatory oversight of hospitals, enhance surveyor training and tools, and sources and uses of infection control data.

The Division of Licensing has agreed to communicate infection control breaches with ADHS HAI Program so that the source of infection can be identified and infection control recommendations provided. These efforts have been supported by the recent [May 30, 2014 Centers for Medicare and Medical Services \(CMS\) memorandum](#) addressing infection control breaches which warrant referral to public health authorities.

iv. Consider expanding regulation and oversight activities to currently unregulated settings where healthcare is delivered and work with healthcare partners to establish best practices to ensure adherence

While expansion of regulation and oversight would require a rule change and approval, it is important to note that this is outside of the HAI Program scope.

Every year, the ADHS HAI Program organizes infection prevention collaborative events to promote infection prevention in different settings such as dental, long-term care, etc. These events are organized to educate providers and staff on the key concepts and basic principles for infection prevention. Also, ADHS HAI Program is planning to assess the

infection prevention status of different healthcare settings by the use of an infection prevention landscape survey.

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)

ADHS works with AZHHA, HSAG and other state partners to enhance prevention infrastructure by increasing collaboratives (CAUTI Collaborative and *C. difficile* Collaborative) with at least 20 hospitals. Individuals working at different hospitals will be invited to join the CAUTI and *C. difficile* collaborative to prevent healthcare-associated infections.

7. Establish collaborative(s) to prevent HAIs in non-hospital settings (e.g., long-term care, dialysis)

The ADHS HAI Program has established multiple non-hospital settings subcommittees. These include:

The End-Stage Renal Disease (ESRD) Subcommittee was developed in 2013 under the HAI Advisory Committee to work on staff/patient infection control, best practices, and vaccination educational projects in dialysis settings. Successes include:

- ADVICE Collaborative
- Projects

In addition, the Long-Term Care Subcommittee was established in 2012 to assist in infection prevention in long-term care settings. Nearly 20 members from across the healthcare spectrum meet on a bimonthly basis to discuss issues pertinent to infection prevention and control in long-term care and skilled nursing settings. Successes include:

- LTC IPCC
- Projects

ADHS HAI Program is working with existing HAI prevention collaboratives facilitated by Arizona Partners in Action to identify ways to support and contribute to establish collaborative in non-hospital settings such as long-term care facilities.

Evaluation and Communication

1. Conduct needs assessment and/or evaluation of the state HAI program to learn how to increase its impact

An antimicrobial stewardship survey was administered to infectious disease physicians in 2015 and infectious disease pharmacists in 2011 in order to describe and analyze current Antibiotic Stewardship Programs' (ASPs) gaps and needs. Summary report of these surveys is distributed to partners and stakeholders via ADHS website and [2016 ARIDS Annual Conference](#). In addition, infection prevention landscape surveys are now being distributed for different types of facilities such as acute care hospitals and long-

term care facilities to conduct a needs assessment and evaluate the current status of infection prevention in healthcare facilities. The infection prevention landscape surveys for dialysis facilities and outpatient treatment centers are now in preparation and will be distributed by the end of year 2016.

i. Establish an evaluation activity to measure progress toward targets

ADHS HAI Program will work with Arizona Partners in Action to measure progress toward targets for CAUTI and CDI reduction among participating healthcare facilities. All participating facilities will be promoted and monitored compliance with all program requirements and intervened as soon as challenges become apparent. Program requirements include:

- Educational requirements—participation in monthly educational events
- Data requirements: recruited hospitals provide access to the SHA, HRET, or other state partner via the NHSN Group function to CLABSI, CAUTI, MRSA, and CDI data (to include numerator and denominator data from all hospital locations reporting to NHSN and hospital or LTACH annual survey data) for a baseline period and the project period; submission of one-two process measure(s) relevant to the HAI(s) being addressed

Regular check-in with hospitals will be conducted. Site visits will be coordinated to some of the participating hospitals and short site visit reports will be provided after the visit.

ii. Establish systems for refining approaches based on data gathered

Data gathered from NHSN and site visits will be used to identify gaps and needs to prevent HAIs. Regular calls will be coordinated to discuss project challenges and successes and to provide ongoing feedback on ways the project may be refined and enhanced.

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

ADHS HAI Program is using different methods to communicate updates and progress to public and private stakeholders. Regular meetings, emails and collaborative events are some examples that are being used to communicate with stakeholders. The HAI Program has established a website (www.preventHAiaz.gov) to promote and distribute a wealth of HAI prevention materials and information to Arizona stakeholders and partners. Topics range from current guidance and recommendations, educational pamphlets, toolkits, training events to name a few.

i. Disseminate state priorities for HAI prevention to healthcare organizations, professional provider organizations, governmental agencies, non-profit public health organizations, and the public

ADHS HAI Program coordinates quarterly HAI Advisory Committee meetings and bi-monthly HAI Subcommittee meetings. State priorities are identified by the help of these

committees. These meetings are open to the public. In addition, emails are frequently used to send updates to appropriate HAI listserv contacts. The ADHS website is also used to disseminate updates and progress to the public. Information posted on website, such as advisory committee, evidence based guidelines, AZ state HAI plan, training collaborative, international infection prevention week etc., helps to disseminate the state priorities for HAI prevention to stakeholders.

3. Provide consumers access to useful healthcare quality measures

Due to limitations on the NHSN data-use agreement, ADHS is unable to use NHSN data to identify, compare, and share quality metrics between different healthcare facilities.

However, the Centers for Medicare and Medicaid Services Hospital Compare data is available to compare healthcare quality measures. The link to this website is also available on the ADHS website. ADHS HAI Program is currently working on making a Hospital Compare toolkit to guide the public on using the Hospital Compare website.

i. Disseminate HAI data to the public

An annual CDC National and State HAI Progress report is available through the ADHS website. Different survey reports are also posted on the ADHS website. Once infection control assessment surveys data collection and analysis are complete, aggregate reports will also be posted on ADHS website. All these reports are/were reviewed in HAI Advisory Committee and Subcommittees meetings. Anyone who is interested can attend HAI Advisory Committee and Subcommittees meetings to be informed of current HAI situations and projects. Minutes of these meetings are posted on ADHS website and available to the public.

The link to Hospital Compare website is also available on the ADHS website. Hospital Compare has information about the quality of care at over 4,000 Medicare-certified hospitals across the country. This website can be used to find hospitals and compare the quality of their care. To help access to the website, ADHS HAI Program is currently working on making a Hospital Compare toolkit to guide the public on using the Hospital Compare website.

4. Guide patient safety initiatives

Different strategies are being used to guide patient safety to stakeholders. Every year Arizona participates in International Infection Prevention Week (IIPW) to heighten awareness of the need to protect patients from HAIs.

Several toolkits (injection safety, *Clostridium difficile*, standard precautions, etc.) were developed. Collaborative events (Long-Term Care Infection Prevention and Control Collaborative, ADVICE Collaborative, Dental Infection Prevention Collaborative, etc.) involving stakeholders from many different professions and agencies, were organized and surveys were administered to assess changes in attendee knowledge and guide next steps/interventions.

i. Identify priorities and provide input to partners to help guide patient safety initiatives and research aimed at reducing HAI

With the help of several partners (e.g., HSAG, ESRD Network 15, AzHHA, AHCA, Leading Age, and other partners), the HAI Program is currently collecting infection control points of contact that will be identified in all types of healthcare settings. Infection prevention landscape surveys are being used to assess the current status of infection control and prevention of acute care and long-term care facilities. This process will be continued to other healthcare settings such as ESRD and outpatient treatment surgical centers. Once data collection and analysis are complete, aggregate reports will be developed summarizing the findings. Based on the findings, priorities will be identified and assistance/support will be provided to partners to help guide patient safety initiatives.

Healthcare Infection Control and Response

1. Create an inventory of all healthcare settings in state—the list must include at least one infection control point of contact at the facility

Currently, ADHS HAI Program is working to create an inventory of all healthcare settings in the state. A master list of 88 acute care hospitals (including critical access hospitals) was created with at least one identified infection control point of contact for each. This process is underway for other healthcare settings including long-term care facilities, dialysis facilities, and outpatient facilities.

2. Identify current regulatory/licensing oversight authorities for each healthcare facility and explore ways to expand oversight

ADHS Division of Licensing has regulatory oversight authorities for long-term care facilities, residential facilities and medical facilities including ambulatory surgical centers, behavioral health inpatient facilities, dialysis facilities, hospitals and rural health clinics. The ADHS HAI Program incorporated regulatory/licensing oversight authority questions into the setting specific infection prevention landscape prevention surveys to identify the additional regulatory/licensing authorities for each healthcare facility. Through the voluntary Infectious Disease Certification Program, the ADHS HAI Program plans to work with the Division of Licensing to recognize healthcare facilities implementing standards for infectious disease prevention and treatment.

3. Assess readiness of Ebola-designated facilities within the state

The Division of Licensing, along with ADHS HAI Program, is currently assessing readiness of Ebola-designated facilities within the state.

The voluntary Infectious Disease Certification Program was established in collaboration with ADHS Division of Licensing to maintain certain standards to prevent and treat infectious diseases in healthcare facilities. The initial certification program focuses on the highest level of care available to an individual with an infectious disease. Additional

levels of services will be established in the future to ensure a comprehensive state-wide program. These levels of certification may include the outpatient setting, community hospitals, and acute care centers as well as services in Arizona's rural communities.

i. Use the CDC readiness assessment tool and determine gaps in infection control

The CDC readiness assessment tool was used to prepare the Infectious Disease Certification Program criteria for certification. The established guidelines will be utilized to evaluate the level of care provided at the facility and to determine the appropriate level of certification. The guidelines represent current infection control standards, and are meant to be adaptable to different diseases, situations, and resources particular to each community and level of certification. The guidelines will be periodically reviewed with the Council for Infectious Disease Preparedness and Response and the HAI Advisory Committee for recommendations and validation.

ii. Address gaps (mitigate gaps)

The healthcare facility contacts the ADHS Division of Licensing to initiate the certification process. Once contact is made, ADHS Division of Licensing provides the healthcare facility representative with the certification packet. An onsite visit will be coordinated. The site visit process consists of group and individual team member meetings with the healthcare facility's representatives, review of documentation, observation of care and services related to infectious disease and tour of the care areas. Following the site visit, based on the gaps found during assessment, the team will make recommendations to the healthcare facility and delineate the level of compliance with the guidelines. The team will also help facilities find the resources in order to address their gaps.

iii. Conduct follow-up assessments

Following the site visit, the team will make recommendations to the healthcare facility. The duration of certification (varies between 1 to 3 years, depending on the outcome of the site visit) and data provided to the site visit team will be sent to healthcare facilities. Three year certification will be provided if the healthcare facility meets all of the criteria established and one year certification will be provided if the healthcare facility meets most of the criteria established in the guidelines and is in the process of development of the remaining criteria. A follow-up site visit will be conducted after a year to ensure all criteria are met and if in compliance, two additional years of certification will be added.

4. Assess outbreak reporting and response in healthcare facilities

Since a standard assessment tool is yet to be received from CDC, an infection prevention landscape survey developed by ADHS will be used to assess the current situation of outbreak reporting and response in healthcare facilities. Based on the responses of surveys, gaps and needs will be identified.

i. Use standard assessment tool and determine gaps in outbreak reporting and response

Currently, ADHS HAI Program incorporated outbreak reporting and response questions into the setting specific infection prevention landscape surveys to assess the current situation of outbreak reporting and response. Data collected through the surveys will be analyzed to identify gaps and needs in outbreak reporting and response.

ii. Address gaps (mitigate gaps)

ADHS HAI Program will provide feedback on gaps identified and offer technical assistance to healthcare facilities in order to address the gaps. Follow-up meetings will be conducted as needed.

iii. Track HAI outbreak response and outcome

ADHS has continued to provide support, technical assistance, and complete outbreak investigations as needed with local and federal public health partners. In 2015, ADHS has led or provided support for 47 HAI outbreak investigations. All of these outbreaks responses and outcomes are tracked and collected electronically. In addition, the HAI Program will continue to use ADHS Outbreak module to track all HAI outbreaks and recommendations provided.

Conclusions

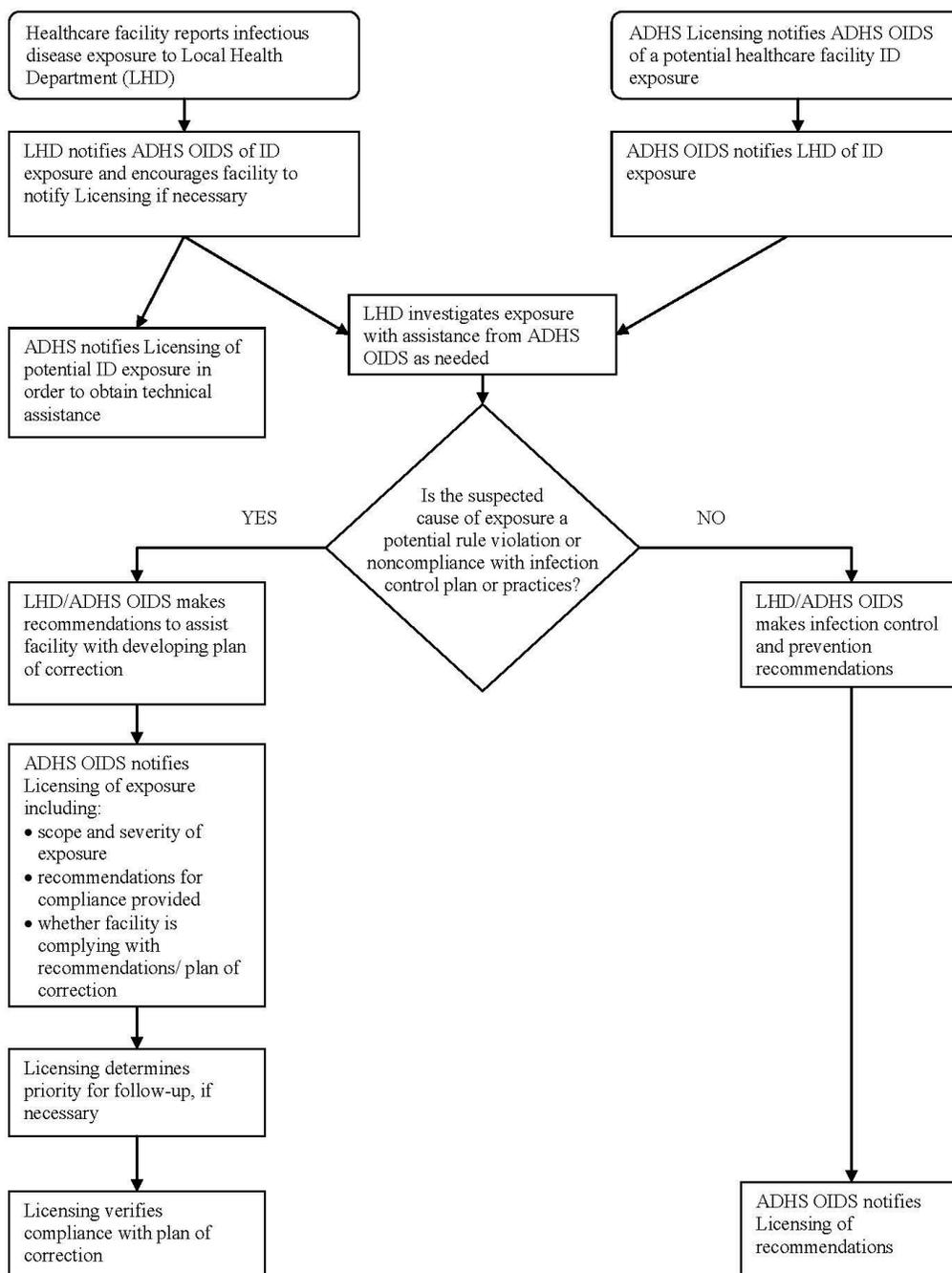
This plan sets the framework for coordinated HAI prevention in Arizona, but will evolve over time based on stakeholder input, provision of additional resources, and enhanced ADHS capacity.

While a few aspects of the plan have already been addressed, full-fledged implementation will begin in early 2017. In summary, next steps for HAI plan implementation include:

- Enhancing collaboration with regional partners
- Continuing to monitor HAIs through ADHS passive surveillance system
- Continuing to provide training to state/county health department staff
- Continuing to assist facilities and county health departments with outbreak investigation by request
- Continuing to coordinate quarterly HAI Advisory Committee meetings and bi-monthly HAI Subcommittee meetings
- Continuing to work with partners to establish prevention working group to coordinate HAI collaboratives
- Working with partners to implement proven prevention strategies for reduction of HAIs, including CAUTI and *C. difficile*
- Working with partners to identify barriers to reporting HAI transmission or outbreaks to ADHS
- Developing state and regional HAI report
- Disseminating information about prevention activities to partner organizations
- Continuing to assess facilities infection prevention resources and activities using the infection prevention landscape survey

APPENDIX I

Arizona Department of Health Services (ADHS) Healthcare Facility Infectious Disease (ID) Exposure Investigation Protocol: Coordination between Office of Infectious Disease Service (OIDS) and Licensing



APPENDIX II

HAI Strategic Planning Meeting Summary

On August 29th, 2014, HAI Program stakeholders within ADHS convened a meeting to conduct strategic planning for the ADHS HAI Program. The meeting was intended to identify the key strategic priorities for the HAI Program over the next year.

Attendees:

Eugene Livar – HAI Program Manager
Harmony Duport – Deputy Chief, Bureau of Epidemiology and Disease Control
Jessica Rigler – Chief, Bureau of Epidemiology and Disease Control/ELC PI/ELC Governance Team
Ken Komatsu – State Epidemiologist/Chief, Office of Infectious Disease Services/ELC Governance Team
Laura Erhart – Senior Epidemiologist
Mary Luc – CDC Public Health Associate-HAI
Sonja Radovanovic – EDC Evaluator
Tori Reaves – HAI Epidemiologist

Summary Agenda:

1. Introductions and Purpose
2. [HAI Program Background](#)
3. [Identify HAI Program Goals](#)
4. [Current Activities](#)
5. [Proposed Activities](#)
6. [Current Capacity](#)
7. [Priorities Discussion](#)
8. [Next Steps](#)

HAI Program Background

Jessica provided an overview of the program's [history](#) and Eugene characterized its current state. HAI reduction is a winnable battle on the [ADHS Strategic Map](#). Current challenges include the number of activities, rapidly changing priorities, and lack of sufficient funding.

Identify HAI Program Goals

Participants agreed that the primary goal of the HAI Program is to improve infrastructure to detect, respond, prevent, and control known and emerging HAIs throughout the state.

Current Activities

Sonja presented two versions of a logic model designed to summarize the work of the HAI Program. [Version 1](#) is based on current activities; [Version 2](#) is based on the original [HAI Plan](#). Eugene presented a [list of activities](#) undertaken by the HAI program, to which participants added.

The group discussed how the HAI Program decides on activities to undertake and how topics of interest emerge. These include:

- Anything related to infection control defaults to the HAI Program
- If the topic or disease is not covered by another OIDS program, it falls to the HAI Program
- Activities are undertaken in an effort to expand relationships and partnerships
- HAI subcommittees identify areas of concern
- Data from Licensing and other areas drive activities
- Grant requirements dictate some activities

Proposed Activities

The group discussed activities that have been proposed, either internally or by partners:

- Validation of NHSN data
- Routine Hospital Compare reports
- Dental infection control training and guidance
- Guidance for pharmacy and compounding best practices
- Injection safety guidance
- NHSN surveillance
- *C. difficile* surveillance (possibly through HDD) & *C. difficile* phylogenetic sequencing project
- More collaborative or training events
- Educational presentations to students (dental school)
- Surveillance for invasive diseases and establishment for outbreak thresholds
- Guidance on drug diversion
- Guidance on antibiotic use to the general public
- Antibiogram development
- Healthcare worker vaccination campaigns

Current Capacity

The HAI Program is supported with \$110,000 of funding through the ELC Cooperative Agreement. Staffing includes the full-time HAI Program Manager, a partial HAI Epidemiologist and a CDC PHAP.

Priorities Discussion

Based on preceding conversations, participants discussed areas of focus for the HAI program moving forward. In order to identify key areas, participants considered the following questions:

- What activities should we be doing?
- What are we good at?
- What do we have funding for?
- What are we required to do?
- What can another partner do better?

A list of priority activities was derived, with the agreement that not all priority activities must be completed by the HAI Program. The table below outlines the agreed-upon priority areas with the suggested entity or entities to carry out each activity. Bolded activities are the highest priority.

Responsibility	Priority Activity	Notes
HAI	HAI Advisory Committee and Subcommittee Facilitation	
HAI	Review and monitor Hospital Compare and NHSN data	Also done by HSAG
HAI	Ongoing program evaluation	In conjunction with EDC Evaluator
HAI	Consultation (phone, presentations, in-office SME)	
HAI	Guiding facilities to resources and collaboratives	Also done by partner organizations
HAI	Maintain online presence & topic specific pages (website, social media)	
HAI	Professional organization participation	
HAI	Continuing education for staff	
HAI	Liaison between federal, local, and other state agencies for HAI issues	
LHDs, OIDS, HAI	HAI Outbreaks and Investigations	LHDs should be primary; HAI role is as a technical advisor
OIDS	Continue surveillance for invasives	
OIDS	Access to EMRs	

Participants also identified priority topics on which HAI Programs should focus. The HAI Advisory Committee will be requested to prioritize these activities, with the understanding the subsequent subcommittee work should focus primarily on the identified topics. Priority topics include:

- Dental infection control
- Injection safety
- Drug diversion
- Pharmacy and compounding
- Antimicrobial stewardship, use, and resistance
- Healthcare worker vaccination

Finally, the group identified activities or topics that are important, but not feasible given current resource limitations and competing priorities. These will not be a current focus of the HAI Program:

- Lab integration on specific projects
- Technical assistance site visits (Licensing to lead)
- Bloodborne pathogen exposure investigations (Hepatitis Program to lead)
- NHSN validation (self-validation can be promoted through Surveillance Subcommittee)

Next Steps

The HAI Strategic Plan and logic model will be updated based on the priority areas identified in the meeting. These will be presented to partners through the HAI Advisory Committee.

In order to narrow the scope of Advisory Committee and subcommittee activities to align with the updated strategic plan, new committee management strategies will be employed. These include implementation of a series of checklists or program planning tools that will support the Advisory Committee and subcommittees in identifying priority topic areas to address, and provide a guide for best practices in materials development (i.e. audience identification, best method of communication, mode of distribution).

The outcomes of the strategic planning meeting will be utilized to develop an evaluation plan and indicators for the HAI Program, which will support future measurements of success. The group will reconvene biannually to follow-up on priority areas and determine whether priorities need to be added or removed.

Appendix 1

General HAI Program Activities and Priorities

1. Outbreak & exposure investigations
 - a. Immediate and ongoing need
 - b. Can require a great amount of resource and FTE hours
 - c. Liaison between LDH, healthcare facilities, Division of Licensing, CDC, FDA and other entities is often needed
 - d. Continually changing situations and scenarios
 - e. Interactions and relationships from these investigations can often lay the groundwork for future partnerships
2. Committee and Subcommittees
 - a. HAI Advisory Committee
 - b. ESRD Subcommittee
 - c. Surveillance Subcommittee
 - d. Long-term Care Subcommittee
 - e. Antimicrobial Stewardship Subcommittee
 - f. Strategies for Training, Education, and Prevention Subcommittee
 - g. CAUTI Steering workgroup
 - h. CAUTI Education Committee
 - i. CAUTI - Communications Planning Meeting
 - j. CSTE HAI Subcommittee
 - k. US Mexico Binational Technical Work Group (BTWG) Cross Cutting Team Call
 - l. BIDS SG influenza subcommittee meeting
 - m. FDA PAR Management Staff Monday morning meeting
 - n. FDA and Arizona Department of Health Services monthly call
 - i. Great investment of time by HAI Program building relationships and trust among stakeholders and partners
 - ii. Allow for regular communication and input from various HAI perspectives and give a pulse of HAI concerns within Arizona
 - iii. Projects and tools developed to meet and address Arizona's HAI needs
 - iv. Opportunity to educate Arizona's HAI/infection control SMEs
3. Antimicrobial stewardship focused activities
 - a. National and state focus on ASP efforts and activities
 - b. Antimicrobial Stewardship Subcommittee and chair with national/state peer respect and support
 - c. Have received wonderful CDC feedback concerning HAI Advisory Committee ASP effort, collaboration, communication, projects, and webpage.
 - d. Any area of need across Arizona's various healthcare settings
4. Subject matter expertise
 - a. Receive request from national and state associations for guidance and presentations

- concerning HAI efforts, interventions and resources
 - b. With such outreach we are able to reach and interact with facility management, administrators and direct infection control personnel
 - c. Can be time consuming effort dependent on type/topic of request
 - i. Usually a good “bang for the buck” scenario
- 5. Technical assistance
 - a. Recent increase in request for TA from various healthcare settings
 - i. LDH
 - ii. Dialysis
 - iii. Outpatient
 - iv. ASC
 - v. LTC
 - vi. Dental
 - vii. Pharmacy
 - b. This is a positive method of outreach to Arizona facilities that normally do not receive infection control support or have a lack of knowledge concerning available resources.
 - c. Time consuming efforts that only target individual facilities
 - d. Concern with CMS infection control/reporting memo that was released in May 2014
 - i. Collaboration and buy-in needed from Division of Licensing
- 6. Calls and inquiries from healthcare workers and general public
 - a. Often in need of immediate attention and time
 - b. Time is required to research resources and compose responses
- 7. Validation
 - a. Even though our DUA has been prepared and executed. Many actions and items are still needed
 - b. Collaborate with HSAG and AzHHA for facility notification and ease of transition
 - c. Dedicate FTE hours to the project that were not supported/funded by CDC
 - d. Rule vs. mandate to support validation?
- 8. CRE Project
- 9. HAI website, social media messaging
- 10. Expert presentations and articles
- 11. Surveillance of invasive organisms
- 12. Conference organization and planning
 - a. AZID
 - b. ADVICE
- 13. Administrative responsibilities
 - a. Meetings
 - b. 1:1s
 - c. Budgets
 - d. Grant applications and progress reports

APPENDIX III

Healthcare-Associated Infections Project Logic Model 09-15-2014

GOAL: To improve infrastructure to detect, respond, prevent, control known and emerging HAIs throughout the state to benefit all Arizonans.

