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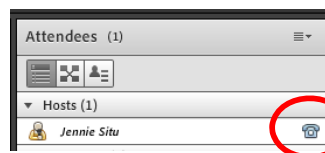
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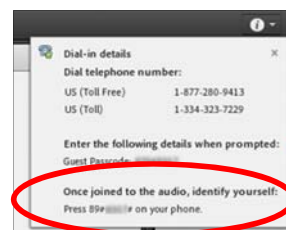
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Using an Infection Control Assessment and Response (ICAR) Approach

Cohort 4: Onboarding 2

June 22, 2017



Connecting Your Audio

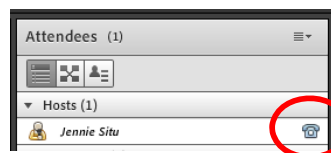
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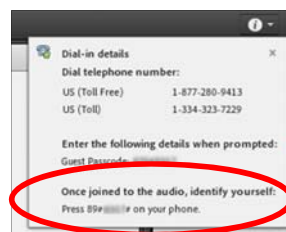
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1. Click the information icon  near the top right corner of your screen.
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Asking Questions

Please use the “Chat Pod” or “raisehand” feature to ask a question during today’s onboarding



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Objectives

- Describe the need for assessing infection prevention practices
- Explain how to use the Infection Control Assessment and Response (ICAR) tool
- Discuss how to use to data to drive change

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Today's Presenters



Jordan Steiger, MPH
Program Specialist
AHA/HRET



Shelby Lassiter, BSN, RN, CPHQ
Clinical Content Development Lead
AHA/HRET

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Introduction to ICAR

Domestic Ebola Supplement to ELC
Project A, Activity B, Strategy 1: Expanding Infection Control Assessments for Acute Care Hospitals, Long Term Care, Dialysis and Outpatient Settings

- Assists state HAI coordinators to help hospitals assess their infection prevention practices and quality improvement activities
- Provides systematic assessment of broad infection prevention practices within hospitals
- Addresses key infection prevention domains
- Assesses process and policy, competency-based training, audit and feedback processes
- Available on the CDC website:
https://www.cdc.gov/hai/pdfs/ic/cdc_ic_assessment_tool_hospital.pdf



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The Purpose of the ICAR Assessment

- Expand infection control assessments both in number of facilities and depth/content of assessments
- Identify gaps in infection control practices and procedures at both the facility and provider level
- Perform follow-up assessments to confirm and document actions taken to address identified gaps

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Use of the ICAR

- **State, Territorial and Local Health Departments**
- **States may target assessments based on**
 - *Facilities with elevated HAI rates:*
 - *Standardized Infection Ratio (SIR)*
 - *Device Utilization Ratio (DUR)*
 - *Targeted Assessment for Prevention (TAP) reports*
 - *Facilities that have had outbreaks or complaints*
 - *Facilities within networks or communities associated with high rates of multidrug-resistant organisms (e.g., CRE) or Clostridium difficile infection*

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A Comprehensive Assessment of an Infection Prevention Program

Infection Control Domains for Gap Assessment

- I. Infection Control Program and Infrastructure
- II. Infection Control Training, Competency, and Implementation of Policies and Practices
 - A. Hand Hygiene
 - B. Personal Protective Equipment (PPE)
 - C. Catheter-associated Urinary Tract Infection (CAUTI)
 - D. Central Line-associated Bloodstream Infection (CLABSI)
 - E. Ventilator-associated Event (VAE)
 - F. Injection Safety
 - G. Surgical Site Infection
 - H. *Clostridium difficile* Infection (CDI)
 - I. Environmental Cleaning
 - J. Equipment Reprocessing
- III. Systems to Detect, Prevent, and Respond to Healthcare-Associated Infections and Multidrug-Resistant Organisms (MDROs)

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Building Infection Prevention Capacity

- **Identification of Common Gaps**
 - Provide data for CDC to focus future efforts
- **Assist in Closing Gaps**
 - Identify resources to assist facilities in improvement efforts
- **Enhance Collaboration**
 - Develop working relationships between public health and facilities

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Common Gaps by ICAR Domain (Acute Care Setting)

Domain	Most common gap	% of "No" responses
Hand Hygiene	Competency-based training	53%
Personal Protective Equipment	Competency-based training	54%
CAUTI	Audits and Feedback (catheter insertion)	70%
CLABSI	Competency-based training (catheter insertion)	59%
CDI	Antibiotic stewardship strategies	54%
Environmental Cleaning	Competency-based training	38%

! *Competency-based training: Most common reason for "No" response was lack of requirement that personnel demonstrate competency following training.*

Based on 397 facility assessments completed by 36 state/local health departments

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Introduction to Practice Change Assessment

Competency-based training

Please answer the following questions related to Hand Hygiene:

	Yes	No
Is training provided to all healthcare personnel, including all ancillary personnel not directly involved in patient care but potentially exposed to infectious agents (e.g., food tray handlers, housekeeping, volunteer personnel)?	<input type="radio"/>	<input type="radio"/>
Is training provided upon hire, prior to provision of care at this hospital?	<input type="radio"/>	<input type="radio"/>
Is training provided at least annually?	<input type="radio"/>	<input type="radio"/>
Are personnel required to demonstrate competency with hand hygiene following each training?	<input type="radio"/>	<input type="radio"/>
Does your hospital maintain current documentation of hand hygiene competency for all personnel?	<input type="radio"/>	<input type="radio"/>

Please answer the following questions related to Personal Protective Equipment (PPE):

	Yes	No
Is training provided to all personnel who use PPE?	<input type="radio"/>	<input type="radio"/>
Is training provided upon hire, prior to provision of care at this hospital?	<input type="radio"/>	<input type="radio"/>
Is training provided at least annually?	<input type="radio"/>	<input type="radio"/>
Is training provided when new equipment or protocols are introduced?	<input type="radio"/>	<input type="radio"/>
Does the training include appropriate indications for specific PPE components?	<input type="radio"/>	<input type="radio"/>
Does the training include proper donning, doffing, adjustment, and wear of PPE?	<input type="radio"/>	<input type="radio"/>
Does the training include proper care, maintenance, useful life, and disposal of PPE?	<input type="radio"/>	<input type="radio"/>
Are personnel required to demonstrate competency with selection and use of PPE (i.e., correct technique is observed by trainer) following each training?	<input type="radio"/>	<input type="radio"/>
Does your hospital maintain current documentation of PPE competency for all personnel who use PPE?	<input type="radio"/>	<input type="radio"/>

Please answer the following questions related to Environmental Cleaning:

	Yes	No
Is training provided to all personnel who clean and disinfect patient care areas? Personnel may include, but are not limited to, environmental services staff, nurses, nursing assistants, and technicians.	<input type="radio"/>	<input type="radio"/>
Is training provided upon hire, prior to being allowed to perform environmental cleaning?	<input type="radio"/>	<input type="radio"/>
Is training provided at least annually?	<input type="radio"/>	<input type="radio"/>
Is training provided when new equipment or protocols are introduced?	<input type="radio"/>	<input type="radio"/>
Are personnel required to demonstrate competency with environmental cleaning (i.e., correct technique is observed by trainer) following each training?	<input type="radio"/>	<input type="radio"/>
Does your hospital maintain current documentation of competency with environmental cleaning procedures for all personnel who clean and disinfect patient care areas?	<input type="radio"/>	<input type="radio"/>
If the hospital contracts environmental services, does the contractor have a comparable training program?	<input type="radio"/>	<input type="radio"/>

- Utilizes questions from CDC's ICAR
- Asses current HAI prevention practices, policies and procedures in your hospital
- If ICAR was completed with your SHD within 12 months, those results will be used as baseline

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ICAR and PCA Submission Guidelines

Practice Change Assessment	ICAR
<ul style="list-style-type: none"> • Enter your responses into the Comprehensive Data System (CDS) • Complete paper version/fillable PDF and send data to your state/organization lead, who will then enter your data into CDS • Email completed fillable PDF form to HRET • Fax or mail the paper version to HRET 	<ul style="list-style-type: none"> • Send the full ICAR to your state/organizational lead, who will enter your data into CDS • Email, fax or mail the full ICAR to HRET

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STRIVE Practice Change Reports

Personal Protective Equipment (PPE)

Option	Response
Training is provided to all personnel who use PPE	Yes
Training is provided upon hire, prior to provision of care at the hospital	Yes
Training is provided at least annually	Yes
Training is provided when new equipment or protocols are introduced	Yes
Training includes appropriate indications for specific PPE components	Yes
Training includes proper donning, doffing, adjustment and wear of PPE	Yes
Training includes proper care, maintenance, useful life, and disposal of PPE	Yes
Personnel are required to demonstrate competency with selection and use of PPE following training (i.e., correct technique is observed by a trainer)	No
Hospital maintains current documentation of PPE competency for all personnel who use PPE	No
Hospital has a defined process for auditing PPE selection and use, including donning and doffing	No
Hospital has a defined frequency for auditing PPE selection and use, including donning and doffing	No
Hospital has a defined improvement process for when non-adherence to PPE policies is observed, including donning and doffing	No
Hospital has a defined feedback process for providing audits to personnel regarding their performance with selection and use of PPE	No
Hospital has a defined feedback frequency for providing audits to personnel regarding their performance with selection and use of PPE	No
Necessary supplies for adherence to PPE recommendations specified under Standard and Transmission-based Precautions (e.g., gloves, gowns, mouth, eye, nose and face protection) are available and located near point of use	Yes
Hospital has policies that clearly define responsibilities for cleaning and disinfection of non-critical equipment, mobile devices and other electronics (e.g., ICU monitors, ventilator surfaces, bar code scanners, point-of-care devices, mobile work stations, code charts, airway boxes, etc.)	Yes

Resources

- PPE101, PPE102, PPE103, PPE104
- [Guidance for the Selection and Use of PPE \(CDC\)](#)
- [2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings \(HICPAC\)](#)
- [10 Ways to Protect Patients: Using PPE the Right Way \(APIC\)](#)
- [Putting On and Removing Personal Protective Equipment \(NEJM\)](#)
- [PPE Skills Competency Checklist \(American Association of Nurse Assessment Coordination\)](#)

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Targeted Assessment for Prevention (TAP) Strategy



TAP allows you to take a focused approach to prevention:

- CDC strategy used to engage hospitals in HAI specific quality improvement
- TAP reports can be generated in NHSN, using data hospitals are already required to submit
- TAP reports quantify the number of infections to prevent to achieve a specific HAI reduction goal
- HAI specific assessment tools assist in targeted infection prevention gaps
- TAP can be accessed at: <http://www.cdc.gov/hai/prevent/tap.html>

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Targeting: Running a TAP Report



Clostridium difficile infections (CDIs) at Anywhere Hospital USA 2015

HO Cases	Expected	SIR	P Value	CAD
81	72	1.13	0.3	29.87

30 infections need to be prevented to reach the hospital's infection prevention goal

CDC TAP Strategy 'How To' Guide: <http://www.cdc.gov/hai/pdfs/prevent/TAP-Guide-for-Individual-Facility-User.pdf>



Assessing: Using Data for Action

Date of Assessment: _____

Facility Name or ID: _____

Facility Type: _____ Other, Please Specify: _____

Unit Name or ID: _____

Unit Type: _____

Title or role of person completing tool: _____ Other, Please Specify: _____

Years of experience at facility: _____ (Numeric Response)

I. General Infrastructure, Capacity, and Processes	Response	Comments (and/or "As Evidenced By")
1. Does your facility's senior leadership actively promote CDI prevention activities?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	
2. Is unit-level leadership involved in CDI prevention activities?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	
3. Does your facility have a team/work group focusing on CDI prevention?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	
4. Does your facility have a staff person with dedicated time to coordinate CDI prevention activities?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	
5. Does your facility have a nurse champion for CDI prevention activities?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	
6. Does your facility have a physician champion for CDI prevention activities?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	



C. difficile Infection Prevention Gaps at Anywhere Hospital USA

Common gaps identified during TAP facility assessments:

- Antibiotic stewardship
- Early and appropriate diagnosis
 - Poor inter-facility communication
- Hand hygiene
 - Lack of sink infrastructure
 - Poor adherence by HCP as well as visitors/families
- Environmental cleaning
 - Poor adherence to daily cleaning of patient rooms and shared medical equipment
 - Unclear delineation of responsibilities

Based on CDI TAP assessments from 8 hospitals in 3 states



Preventing: Guides, Tools and Resources

CDI Implementation Guide: Links to Example Resources:

<http://www.cdc.gov/hai/prevent/tap/cdiff.html>

[CDC](#) • [Healthcare-associated Infections \(HAI\)](#) • [Prevention](#) • [Treatment](#) • [Assessment for Prevention \(TAP\)](#)

TAP Clostridium difficile infection (CDI) Implementation Guide: Links

Disclaimer: The links in the domains below are not mutually exclusive nor do they represent an endorsement. Furthermore, the links presented do not constitute an endorsement of these organizations or the Prevention (CDC) or the Federal government, and none should be inferred.

Also refer to the following guidelines:

Strategies to Prevent Clostridium difficile Infections in Acute Care Hospitals: 2014 Update
<http://journals.plos.org/plosone/article/doi/10.1371/journal.pone.0160423>

Clinical Practice Guidelines for Clostridium difficile Infection in Adults: 2010 Update
http://www.cdc.gov/hai/toolkits/cdiff/CDC_SHEA_CDI_guidelines/

Other relevant CDC guidelines:
<http://www.cdc.gov/ncidod/dhqp/html/guides.html>

CDI Prevention Primer Side Set Available at:
http://www.cdc.gov/hsa/prevention_tools.html

- I. General Infrastructure, Capacity, and Process
- II. Antibiotic Stewardship
- III. Early Detection and Isolation, Appropriate Testing
- IV. Contact Precautions/Hand Hygiene
- V. Environmental Cleaning
- VI. Laboratory Practices

- I. General Infrastructure, Capacity, and Processes
- II. Antibiotic Stewardship
 - **Get Smart for Healthcare – Implementation Resources**
Resources to assist in the implementation of hospital antibiotic stewardship programs, including guidelines, assessment tools, conceptual models, and a sample inter-facility infection control transfer form, from CDC.
 - **Get Smart for Healthcare – Stewardship Program Examples**
Links to hospital stewardship programs at various hospitals, success stories, and an interactive collection of charts and maps summarizing national and subnational data on antimicrobial use and resistance (Resistance Map), from CDC.
 - **Get Smart for Healthcare – Checklist for Core Elements of Hospital Antibiotic Stewardship Programs**
A checklist to evaluate hospital antibiotic stewardship programs, from CDC.
 - **Antimicrobial Stewardship Toolkit** (PDF) (7)
Best practices from an Antimicrobial Stewardship Collaborative, from the Greater New York Hospital Association and the United Hospital Fund.
 - **Toolkit for Reduction of Clostridium difficile Infections Through Antimicrobial Stewardship: Possible Methods for Evaluating Antibiotic Use** (7)
Table of possible metrics to use for measurement and evaluation of antibiotic use, from the Agency for Healthcare Research and Quality (AHRQ).
 - **Toolkit for Reduction of Clostridium difficile Infections Through Antimicrobial Stewardship: Medication Use Evaluation Template** (7)
Sample template for reviewing antibiotic use patterns, including graphic comparisons over time, from the Agency for Healthcare Research and Quality (AHRQ).
 - **Antibiotic Stewardship – Sample Pharmacist's Daily Routine** (PDF) (7)
Sample pharmacist's daily routine for reviewing and streamlining antibiotic use, from the Society for Healthcare Epidemiology of America (SHEA).
 - **Drug Use Evaluation Form** (PDF) (7)
A template form that antibiotic stewardship committees can use to evaluate antibiotic use, from the Society for Healthcare Epidemiology of America (SHEA).
 - **CDI Awareness Campaign Challenge #2: Antibiotic Stewardship** (PDF) (7) (7)
Self-assessment to help facilities assess their current state of antibiotic stewardship and choose action oriented challenges to address from the Rapid Cycle Quality Improvement Organization.



TAP Resources

TAP Resources

Target

- Individual Facility User - TAP 'How To' Guide [PDF - 1.41 MB]
- Group User - TAP 'How To' Guide [PDF - 1.35 MB]
- Targeted Assessment for Prevention of Healthcare-Associated Infections: A New Prioritization Metric - Journal article by Soe et al. published in *Infection Control & Hospital Epidemiology* describing the cumulative attributable difference (CAD) metric.
- Example Letter [DOC - 172 KB] - From a State Health Department to a Healthcare Facility, encouraging participation in state and regional prevention collaboratives.
- TAP Strategy Reports - NHSN Guidance on Generating a TAP Report
- TAP Glossary of Terms March 2015 [PDF - 127 KB]
- TAP Training - NHSN Data Entry and Analysis

Assess


- CAUTI TAP Facility Assessment Tool v2.0 - May 2016 [PDF - 1.5 MB]
- CDI Facility Assessment Tool - Instructions [PDF - 383 KB]
- CDI Facility Assessment Tool [PDF - 1 MB]
- CDI Facility Assessment Tool - Lab section [PDF - 254 KB]
- CDI Facility Assessment Tool - Stewardship section [PDF - 301 KB]
- CLABSI TAP Facility Assessment Tool v2.0 - August 2016 [PDF - 998 KB]

Prevent


- TAP CAUTI Toolkit Implementation Guide: Links to Example Resources
- TAP CDI Implementation Guide: Links to Example Resources
- TAP CLABSI Implementation Guide: Links to Example Resources

For questions pertaining to the TAP Strategy and the accompanying TAP tools, please contact: HAIPrevention@cdc.gov


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ICAR and PCA Central Themes



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Discussion Questions

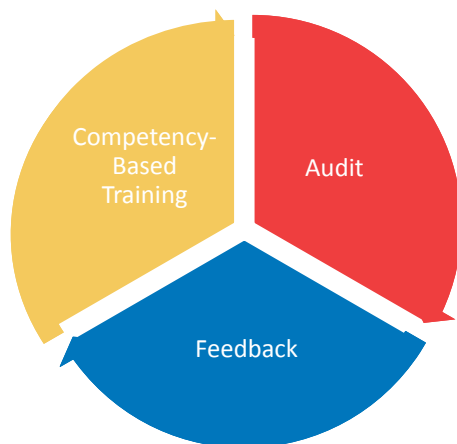


How do you ensure your infection prevention policies and procedures are evidence-based?

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Assessing Infection Prevention Practices



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Competency-Based Training

Assess if competency-based training is provided to health care personnel:

- Does your hospital have a competency-based training program for key infection prevention domains?
- Other competency-based training related issues:
 - Who is trained?
 - Are key concepts included in the training?
 - How often is training conducted?
 - How do health care personnel demonstrate competency?

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Discussion Question



How do you conduct competency-based training and tailor training to different roles?

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Auditing

Assess how infection prevention practices are being audited:

- Does your hospital routinely audit (monitor and document) adherence to key infection prevention domains?
- Other audit related issues:
 - Defined process to conduct audits
 - Defined frequency that audits are conducted
 - Defined process for improvement when non-adherence is observed

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Feedback

Provide feedback from audits to personnel regarding their performance



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Polling Questions

1. What infection prevention practices do you routinely audit?
 - Hand hygiene
 - Personal protective equipment selection
 - Personal protective equipment use
 - Cleaning and disinfection procedures
 - Recommended practices for urinary catheter and central line insertion
 - Recommended practices for urinary catheter and central line maintenance

2. Do you have a defined feedback process for all of the practices that you audit?
 - Yes
 - No

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Opportunity for Infection Prevention

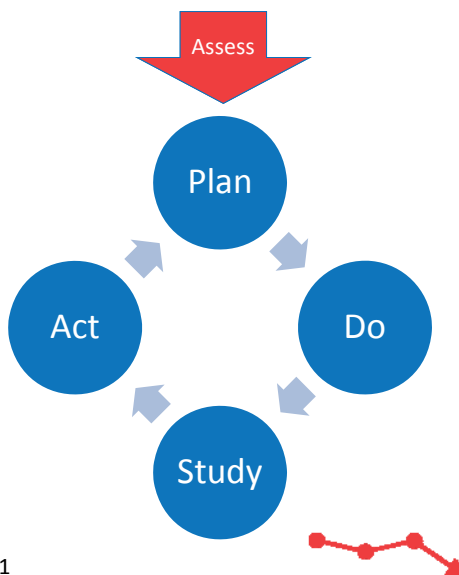


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Use Results to Drive Improvement

- Create your plan for improvement
- Implement interventions
- Study impact
- Modify, re-educate if indicated



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Support and resources

- State HAI partners/organizational lead can provide coaching support to assist in action planning
- Peer to peer collaboration within each state/organization to share best practices and common challenges
- Work with your state HAI partners/organization to gain new insight into local efforts and resources

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Supportive Foundations

- Competency-based training, audit, and feedback
- Uber adaptive strategies
- Business case for infection prevention
- Patient and family engagement

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Next Steps

- ✓ Confer NHSN Data Rights to HRET
 - Due June 29, 2017
- ✓ Work with SHA to set up your CDS account
- ✓ Complete the ICAR or PCA
 - Due July 21, 2017
- ✓ Attend Onboarding 3: Connecting the Dots: Using Program Tools and Resources
 - Thursday, July 6, at 11:00 am CT



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References and Resources

- CDC. Core Elements of Hospital Antibiotic Stewardship Programs. Atlanta, GA: US Department of Health and Human Services, CDC; 2014. Available at <http://www.cdc.gov/getsmart/healthcare/implementation/core-elements.html>.
- Centers for Disease Control and Prevention. 2014 National and State Healthcare-Associated Infections Progress Report. Published March, 2016. Available at www.cdc.gov/hai/progress-report/index.html.
- Get Smart for Healthcare. Overview and Evidence to Support Stewardship. Centers for Disease Control and Prevention website. <http://www.cdc.gov/getsmart/healthcare/evidence.html>. Updated November, 2017. Accessed June 27, 2016.
- Infection Control Assessment tools. Centers for Disease Control and Prevention website. <http://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html>. Updated January 15, 2016. Accessed June 27, 2016.
- Kwon J, Olsen MA, Dubberke ER. The morbidity, mortality, and costs associated with *Clostridium difficile* infection. *Infect Dis Clin N Am*. 2015; 29(1): 123-34.
- Lessa F, Mu Yi, Bamberg WM, et al. Burden of *Clostridium difficile* Infection in the United States. *N Engl J Med*. 2015; 372: 825-34.
- Slayton RB, Toth D, Lee BY, et al. Vital Signs: Estimated effects of a coordinated approach for Action to Reduce Antibiotic-Resistant Infections in Health Care Facilities — United States. *MMWR*. 2015; 64(30): 826-831.
- Steiner C, Barrett M, Weiss A. HCUP Projections: Clostridium Difficile Hospitalizations 2001 to 2013. 2014. HCUP Projections Report # 2014-01. ONLINE April 9, 2014. U.S. Agency for Healthcare Research and Quality. Available: <http://www.hcupus.ahrq.gov/reports/projections/2014-01.pdf>.
- The Targeted Assessment for Prevention (TAP) strategy. Centers for Disease Control and Prevention website. <https://www.cdc.gov/hai/prevent/tap.html>. Updated May 12, 2016. Accessed June 27, 2016.

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Contact Person

Main person to contact is from your **State Hospital Association or Organization**

	Organizational Lead	Contact
Kansas	Michele Clark	MClark@khconline.org
Nevada	Marissa Brown	marissa@nvha.net
Ohio	Rosalie Weakland	Rosalie.Weakland@ohiohospitals.org
Promise Healthcare	Theresa Hunkins	theresa.hunkins@promisehealthcare.com
	Lori Swope	Lori.Swope@promisehealthcare.com
Tenet Health	Elizabeth Ring	Elizabeth.Ring@promisehealthcare.com
	Mary Oden	Mary.Oden@tenethealth.com
Washington	Lani Dickinson	Lani.Dickinson@tenethealth.com
	Jessica Symank	jessicas@wsha.org
Individual Hospitals	Shelby Lassiter	slassiter@aha.org

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Questions?

Email: STRIVE@aha.org

EVALUATION

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