



The Path to National Healthcare Safety Network Data in Georgia

Presentation to: Georgia Hospital Association

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Outline

- **History of Public Health Involvement in Healthcare Associated Infections (HAIs)**
- **Reporting Mandates and Other Options**
- **Reporting to CMS**
- **Making Select HAIs Notifiable to DPH**
- **Plans for the Data**
- **Validation**

History of HAI Prevention

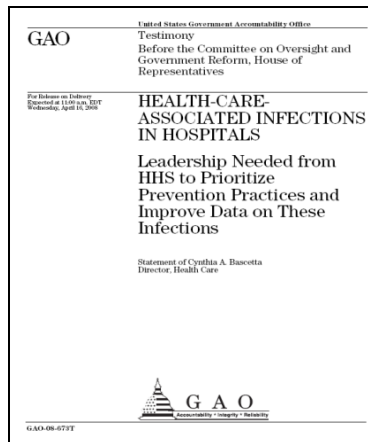
- **Healthcare facilities were at the center of all HAI prevention and surveillance efforts**
- **Prevention projects were conducted by each individual facility**
 - **Interventions not often adopted by others**
- **Field was dominated by larger, academic facilities**
- **Minimal involvement from state health departments**

Srinivasan 2010

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Improved Implementation of Existing Best Practices

2009 HHS Action Plan in Response to GAO



News Release

FOR IMMEDIATE RELEASE
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Contact: OPHS Press Office
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HHS Issues Action Plan to Prevent Health Care-Associated Infections

The U.S. Department of Health and Human Services (HHS) unveiled a plan that establishes a set of five-year national prevention targets to reduce and possibly eliminate health care-associated infections (HAIs).

Health care-associated infections are infections that patients acquire while undergoing medical treatment or surgical procedures. These infections are largely preventable.

The Action Plan to Prevent Health Care-Associated Infections lists a number of areas in which HAIs can be prevented, such as surgical site infections. The plan also outlines cross-agency efforts to save lives and reduce health care costs through expanded HAI prevention efforts.

"This plan will serve as our roadmap on how the department addresses this important public health and patient safety issue," HHS Secretary Mike Leavitt said. "This collaborative interagency plan will help the nation build a safer, more affordable health care system."

The plan establishes national goals and outlines key actions for enhancing and coordinating HHS-supported efforts. These include development of national benchmarks prioritized recommended clinical practices, a coordinated research agenda, an integrated information systems strategy and a national messaging plan.

The plan also identifies opportunities for collaboration with national, state, tribal and local organizations.

HHS intends to update the plan in response to public input and new recommendations for infection prevention. The plan, and instructions for submitting comments on the plan, can be found online at <http://www.hhs.gov/ophs>.

National HAI Action Plan: Priorities

- **Priority Areas**
 - **Catheter-Associated Urinary Tract Infection**
 - **Central Line-Associated Blood Stream Infection**
 - **Surgical Site Infection**
 - **Ventilator-Associated Pneumonia**
 - **MRSA**
 - ***Clostridium difficile***
- **Tier 1 Implementation**
 - **Hospitals**
- **Tier 2 Implementation**
 - **Ambulatory Surgical Centers**
 - **Dialysis Centers**

Kainer, 2010

Congressional Action on HAIs

- **Congressionally mandated State HAI Plans**
 - States required to have a formal HAI prevention plan
 - CDC provided a template for developing the plans and feedback on plans
- ▣ **State health departments taking a more central role in HAI prevention efforts**
 - Neutral party- able to work with any facility
 - Able to work across the entire continuum of care
 - Have access to a range of interventions- including recommendations and regulations

Across the Healthcare Continuum

- **Acute Care Hospitals**
- **Dialysis Centers**
- **Outpatient Surgical Centers**
- **Long Term Care Facilities (LTCFs)**
- **Long Term Acute Care Facilities (LTACs)**



Areas Targeted by Public Health

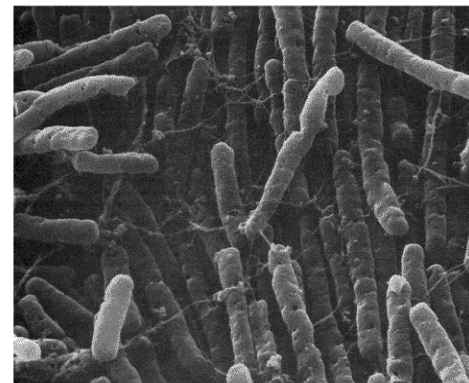
- **PREVENTABLE** infections from things we as health providers do to patients:
 - Device-Associated Infections
 - Surgical Site Infections
 - Dialysis-Associated Infections
 - Injection Safety



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Areas Targeted by Public Health

- Infections that cause significant mortality and morbidity that can be transferred from patient to patient
 - MRSA
 - *Clostridium difficile*
 - Multi-drug resistant Gram negatives



HICPAC Guidance

- **In 2009 Healthcare Infection Control Practices Advisory Committee (HICPAC) released guidance for public reporting of HAIs**
- **Did not recommend for or against but provided recommendations on important elements of building a successful reporting program**
- **Many states proceeded forward with mandatory reporting programs**

Public Reporting Mandates

- **Currently 28 states + DC have HAI public reporting mandates**
- **Data is reported by facilities to the state health department**
- **State health department releases a public report of facility-specific data for those HAIs included in the mandate**

NHSN DATA: CMS reporting

- **CMS now requires reporting of HAIs to the National Healthcare Safety Network (NHSN) to receive 2% reimbursement**
- **Data posted on Hospital Compare**
- **Every Quarter approximately 1 year later- 1st quarter 2011 posted Feb 2012**
- **Validation performed on 3 charts per quarter**

CMS Reporting via NHSN – Current and Proposed Requirements (*as of 11/14/2011*)

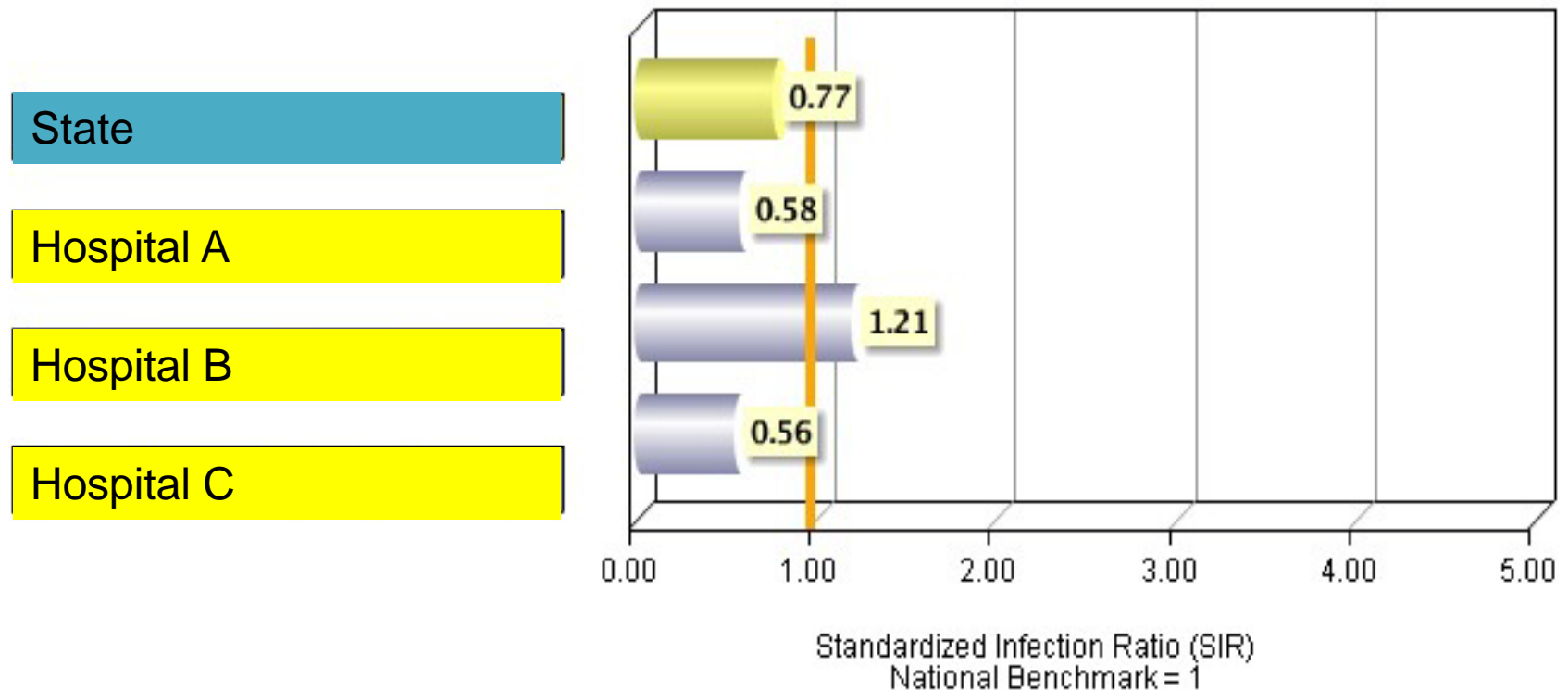
HAI Event	Facility Type	Reporting Start Date
CLABSI	Acute Care Hospitals Adult, Pediatric, and Neonatal ICUs	January 2011
CAUTI	Acute Care Hospitals Adult and Pediatric ICUs	January 2012
SSI	Acute Care Hospitals Colon and Abdominal Hysterectomy	January 2012
I.V. antimicrobial start	Dialysis Facilities	January 2012
Positive blood culture	Dialysis Facilities	January 2012
Signs of vascular access infection	Dialysis Facilities	January 2012
CLABSI	Long Term Care Hospitals *	October 2012
CAUTI	Long Term Care Hospitals *	October 2012
CAUTI	Inpatient Rehabilitation Facilities	October 2012
MRSA Bacteremia	Acute Care Hospitals	January 2013
<i>C. difficile</i> LabID Event	Acute Care Hospitals	January 2013
HCW Influenza Vaccination	Acute Care Hospitals	January 2013
HCW Influenza Vaccination	ASCs	October 2014
SSI (<i>Future Proposal</i>)	Outpatient Surgery/ASCs	TBD
* Long Term Care Hospitals are called Long Term Acute Care Hospitals in NHSN		

Standardized Infection Ratio

- **SIR = observed infections/ predicted infections**
- **Predicted based on 2006-2008 NHSN baseline data**
- **Accounts for type of unit (MICU) and type of facility (academic teaching hospital)**
- **Provides risk adjustment**

Hospital compare graphs

Central Line Associated Blood Stream Infections (CLABSI)



No Reporting Mandate in GA

- **Reasons:**
 - **Open records requests**
 - **Self-reported unvalidated data**
 - **Hospitals concerned about accuracy**
- **Results:**
 - **GDPH does not have access to NHSN facility-specific data until publicly released**
 - **Unable to recognize problems and perform interventions where needed**
 - **Data not reported on unit specific level**

Potential Solutions: Mandate

- **Pros**

- Publicly report data
- Motivator to facilities
- Designation of resources toward prevention
- Access to real-time data in NHSN

- **Cons**

- Would need to validate to ensure accuracy
- Expensive and resource intensive



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Potential Solutions: Data Use Agreement

- **Pros**

- **Data protected under contract with CDC**
- **Access to data for public health purposes**

- **Cons**

- **Not real-time data: Data dump every 3 months**
- **Unable to use NHSN analysis tools**

CDC Introduces New Way for State Health Departments to Access Data Reported to the National Healthcare Safety Network

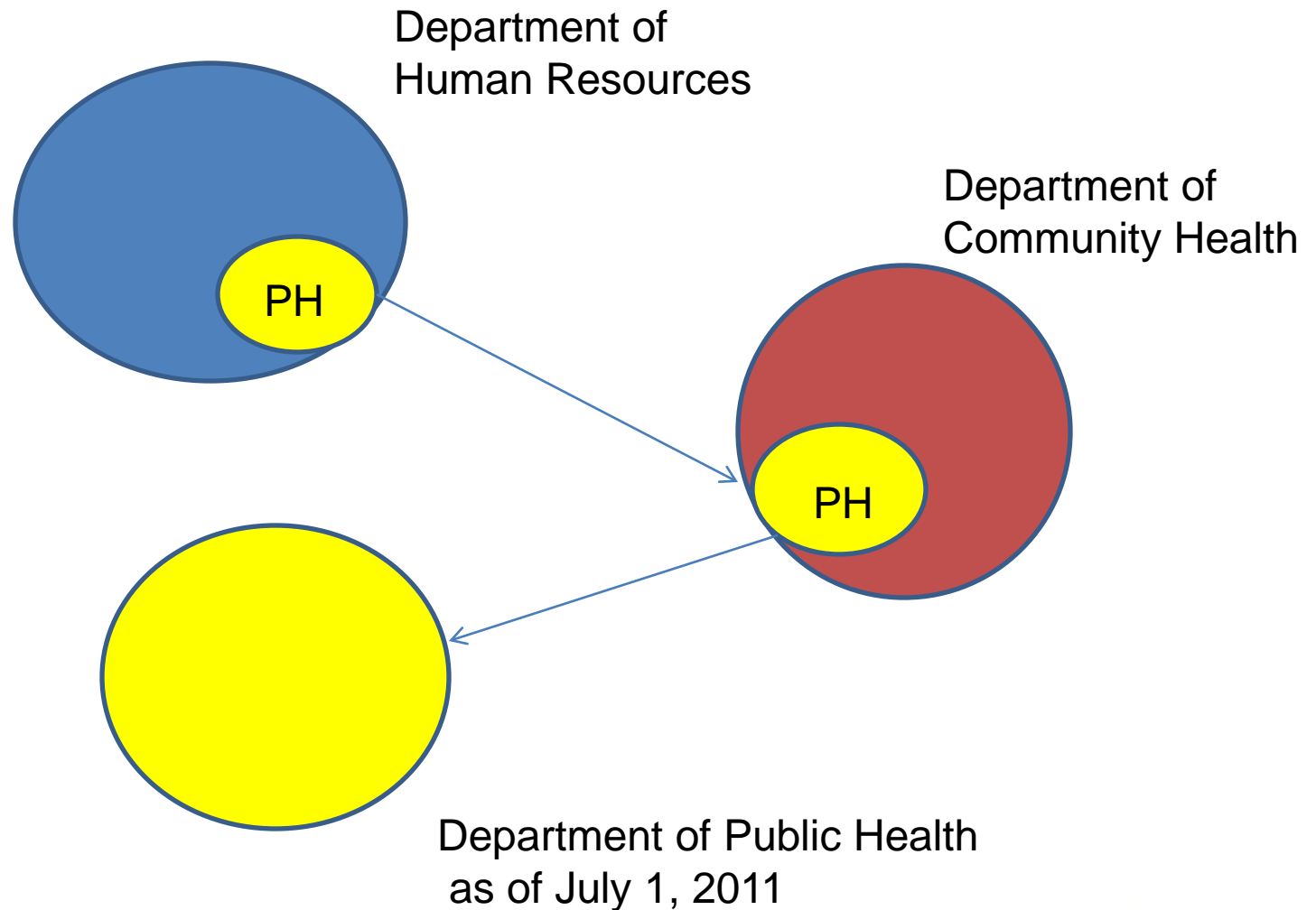
CDC Data Use Agreement with State Health Departments
Frequently Asked Questions

Potential Solutions: Notifiable Disease List

- **Pros**
 - Real-time data through NHSN users group
 - Access to NHSN tools
 - Ability to Protect the Data
 - Align with CMS
- **Cons**
 - Would not include resources for validation



Department of Public Health



Department of Public Health

- **Department level agency**
- **Commissioner focused on public health**
- **Legal team within public health**
- **Permitted better access and higher prioritization to move forward**



Georgia Department of Public Health

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What was done

- **Worked with HAI Advisory Counsel to plan**
- **Proposal was drafted to add HAIs reportable to CMS to Georgia Notifiable Disease List beginning January 1, 2013**
 - **Constructed with assistance of General Counsel**
 - **Commissioner signed proposal**
- **Data declared confidential: protected from open records requests**

Which HAIs?

- **Only those reportable to CMS**
- **As CMS adds HAIs to the list of reporting requirements, they will be added in parallel to the list of Notifiable Diseases to DPH**
- **Facilities will need to confer the rights to DPH for the NHSN data they will be reporting to CMS**
- **No additional HAIs are required**

Plan for the Data

- **Use it to guide public health efforts**
 - Recognize areas of concern
 - Target educational efforts
 - Build collaboratives with partners
 - Measure success of programs
- **Provide data to facilities**
 - Permit comparison of facility data to state and national data

Potential Display of Data

	Observed	Predicted	SIR	95% CI
Hospital A				
Hospital B				
Hospital C				
Hospital D				

***Facilities would only know which letter represented their own facility**

***Provide data to facilities of SIR percentiles for various HAIs**

Validation

- **Importance of Accurate Data**
 - **Guides infection control policies and strategies**
 - **Creates an equal comparison**
 - **Facilities need to believe the data to be motivated by it**
 - **Facilities feel they are compared fairly**
- **Distinct difference in CLABSI measurements in states performing validation vs other states**

Guess which 5 states perform Validation?

Table 2. State-specific Standardized Infection Ratios (SIRs) for States Using NHSN to Comply With a Legislative Mandate* to Report Central Line-Associated Bloodstream Infections to the State Health Department: January 2009 – June 2009.

State	No. of Facilities Reporting	Observed	Predicted	SIR	95% CI for SIR		Graphic Representation of SIR†		
					Lower	Upper	0	1.0	2.0
Colorado	50	64	94.25	0.68	0.52	0.87	◆		
Connecticut ‡	30	65	69.46	0.94	0.72	1.19		○	
Delaware	8	20	33.84	0.59	0.36	0.91	◆		
Illinois	140	301	333.46	0.90	0.80	1.01		○	
Maryland ‡	48	234	179.95	1.30	1.14	1.48			◆◆
Massachusetts	70	124	211.44	0.59	0.49	0.70	◆		
New Hampshire	24	13	22.93	0.57	0.34	0.90	◆		
New Jersey	72	183	222.97	0.82	0.71	0.95		◆	
New York ‡	182	604	610.22	0.99	0.91	1.07		○	
Oklahoma	48	59	118.95	0.50	0.38	0.64	◆		
Oregon	37	50	82.21	0.61	0.45	0.80	◆		
Pennsylvania	204	818	1,176.83	0.70	0.65	0.74		◆	
South Carolina ‡	63	183	158.11	1.16	1.00	1.34			○
Tennessee ‡	72	282	245.99	1.15	1.02	1.29			◆◆
Vermont	8	3	10.99	0.27	0.07	0.71	◆		
Virginia	76	161	193.81	0.83	0.71	0.97		◆	
Washington	62	86	148.07	0.58	0.47	0.72	◆		
US-all	1,538	4,615	5,618.75	0.82	0.80	0.85		◆	

* Presence of mandate to report CLABSIs to the state health department using NHSN as of June 30, 2009

† Solid diamonds=SIR <1.0, solid X=SIR >1.0, open circle=SIR not different than 1.0

‡ State health department self-reported the completion of any validation study of NHSN data (studies conducted on 2008 data).

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Objectives of Validation

- **Conduct validation of CLABSI reporting to NHSN in an effective resource efficient manner**
- **Maximize accuracy of data**
 - **Correct mistakes**
 - **Learn about additional areas where education should be provided**
 - **Create an environment where accuracy is emphasized**
- **Prepare for CMS validation**

BONE AND JOINT INFECTION (BJ)

BONE – Osteomyelitis

DEFINITION: Osteomyelitis must meet at least **ONE** of the following criteria:

☐ **Criterion 1:**

- ☐ Patient has organisms cultured from bone

☐ **Criterion 2:**

- ☐ Patient has evidence of osteomyelitis on direct examination of the bone during **ONE** of the following:
 - ☐ surgical operation
 - ☐ histopathologic examination

☐ **Criterion 3:**

- ☐ Patient has at least **TWO** of the following signs or symptoms with no other recognized cause:
 - ☐ fever ($>38^{\circ}\text{C}$)
 - ☐ localized swelling
 - ☐ tenderness
 - ☐ heat
 - ☐ drainage at suspected site of bone infection

AND

- ☐ at least **ONE** of the following:
 - ☐ organisms cultured from blood
 - ☐ positive blood antigen test (e.g. *H. influenzae*, *S. pneumoniae*)
 - ☐ radiographic evidence of infection (e.g. abnormal findings on x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc]).

JNT – Joint or Bursa

DEFINITION: Joint or bursa infections must meet at least **ONE** of the following criteria:

☐ **Criterion 1:**

- ☐ Patient has organisms cultured from **ONE** of the following:
 - ☐ joint fluid
 - ☐ synovial biopsy

☐ **Criterion 2:**

- ☐ Patient has evidence of **ONE** of the following:
 - ☐ joint infection
 - ☐ bursa infectionseen during **ONE** of the following:
 - ☐ surgical operation
 - ☐ histopathologic examination

☐ **Criterion 3:**

- ☐ Patient has at least **TWO** of the following signs or symptoms with no other recognized cause:
 - ☐ joint pain
 - ☐ swelling
 - ☐ tenderness

Looking Forward



- **Use NHSN data to recognize problems and direct public health interventions**
- **Continue to participate with partners in building prevention collaboratives**
- **Provide education on prevention, NHSN enrollment and case determinations**
- **Consider small scale voluntary validation**
- **Continue to reevaluate if funding situation changes**

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Questions

