

Update on Healthcare Associated Infections

Presenter's Name – Myriad Pro, Bold, 20pt

Presenter's Title – Myriad Pro, 18pt

Title of Event

Date of Event



Outline

- ❑ Update on required federal HAI reporting (In-patient Prospective Payment System and Quality Incentive Program)
- ❑ Validation of HAI data
- ❑ Expansion of HAI prevention efforts outside of acute care facilities
- ❑ Antibiotic stewardship

Federal Reporting of HAI Data

- ❑ Starting in January of 2011, hospitals were required to report certain HAIs to CMS through the National Healthcare Safety Network.
- ❑ Reporting began with central line associated blood stream infections, and CMS signaled its intention to expand this reporting.

In-Patient Prospective Payment System (IPPS)

- ❑ Acute care hospitals that participate in the IPPS are required to comply with the reporting requirements to receive their “annual payment updates” – up to 2% of their annual payment.
- ❑ CMS indicated this would begin as “pay for reporting” and would transition to “pay for performance”

Reporting Requirement Timeline

- ❑ **Intensive Care Units**
- ❑ Central line associated blood stream infections (CLABSI)- January 2011
- ❑ Catheter associated urinary tract infections- January 2012

Reporting Requirement Timeline

- ❑ **Acute Care Hospitals: non-ICU**
- ❑ Surgical site infections following colectomy and abdominal hysterectomy- January 2012
- ❑ MRSA bacteremia- January 2013
- ❑ C. difficile- January 2013
- ❑ Healthcare worker influenza vaccination- January 2013

Reporting Requirement Timeline

- ❑ **Dialysis facilities-** (Quality Incentive Program): Facilities must report three months of data by end of 2012
- ❑ IV antibiotic starts
- ❑ Positive blood cultures
- ❑ Signs of vascular access infection

Reporting Requirement Timeline

- ❑ Long term care hospitals (long term acute care hospitals)
 - ❑ CLABSI- October 2012
 - ❑ CAUTI- October 2012
- ❑ Inpatient rehabilitation facilities
 - ❑ CAUTI- October 2012

Reporting Requirement Timeline

- ❑ Ambulatory surgical centers
- ❑ Healthcare worker influenza vaccination -
October 2014

IPPS Challenges and Opportunities

- ❑ Almost all acute care hospitals in the country are now enrolled in NHSN and are monitoring their progress on HAI prevention.
- ❑ The national picture on CLABSI demonstrates on-going reductions.
- ❑ The use of NHSN has avoided creating a new reporting system.

IPPS Challenges and Opportunities

- ❑ How will pay for performance work?
- ❑ How can we adjust the standardized infection ratio to account for small hospitals?
- ❑ How do ensure that the playing field is level- are the data valid?

Data Validation

- ❑ State public reporting requirements and now the CMS reporting mandates have substantially elevated the importance of ensuring the validity of data being submitted to NHSN.

What is Data Validation?

- ❑ Assessing data submitted to NHSN to ensure:
 - ❑ Correct denominator data
 - ❑ Complete case ascertainment
 - ❑ Correct application of case-definitions

Data Should be Validated at Multiple Levels

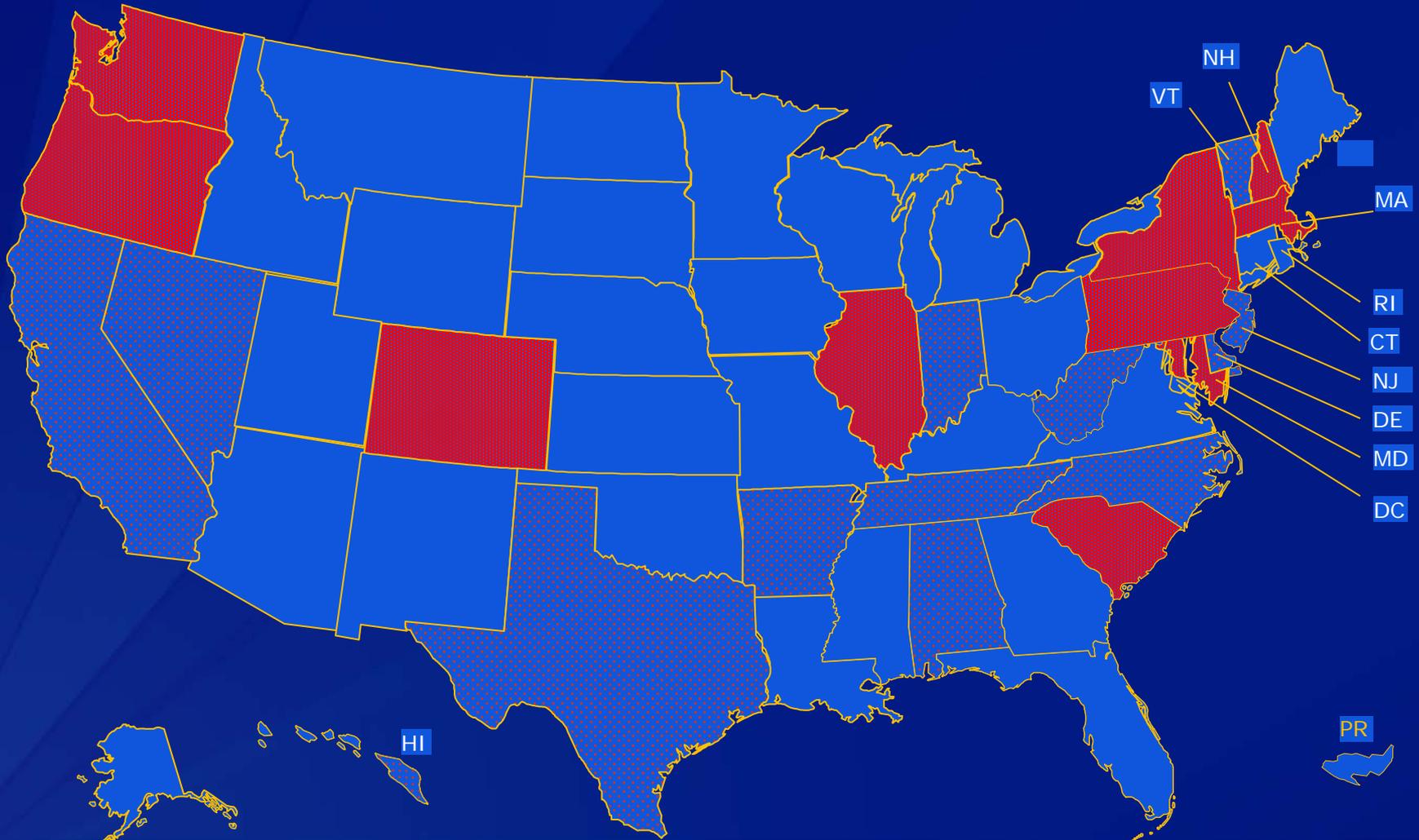
- ❑ “Intrinsic” validation- NHSN has a number of business rules that help prevent data entry errors and point out missing data.
- ❑ Internal validation- healthcare facilities should audit their own data to ensure accuracy.

Data Should be Validated at Multiple Levels

- ❑ External validation- refers to audits of a facilities HAI data by a 3rd party.
- ❑ Many state health departments have conducted some type of external data validation (many supported by recovery act funding).

SSI Externally Validated by State, as of 2012

Dots: SSI Mandate by 2012



Lessons Learned from Validation Experience

- ❑ Good validation is resource intensive.
- ❑ Validation improves everyone's confidence in HAI reporting and helps ensure a "level playing field"
 - More critical than ever with public reporting and payment implications.

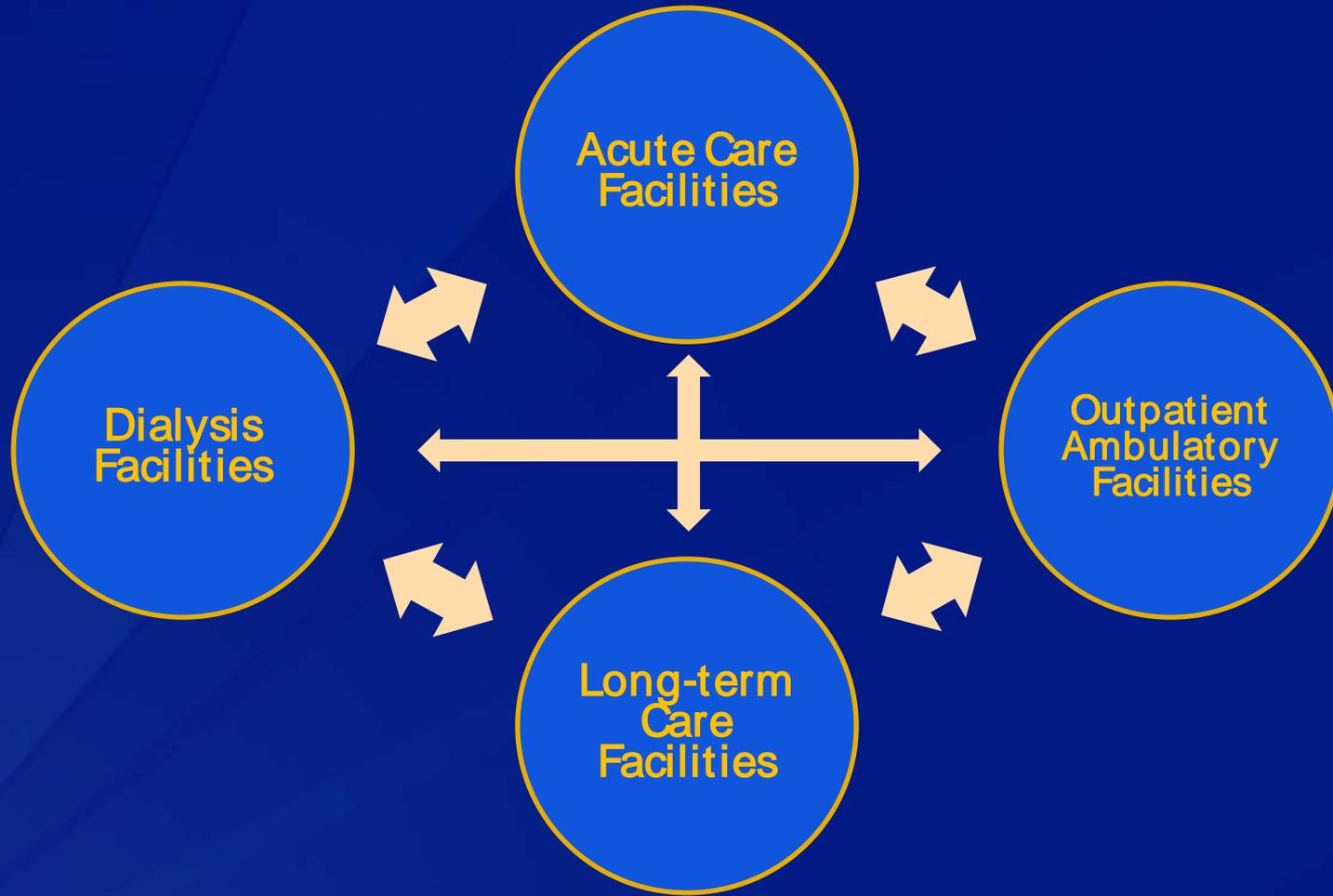
Lessons Learned from Validation Experience

- ❑ When done well, validation provides an important forum and opportunity for both facilities and health departments to learn more about HAI tracking and reporting.
- ❑ Validation work not only improves the data being reporting, but can even help inform more prevention.

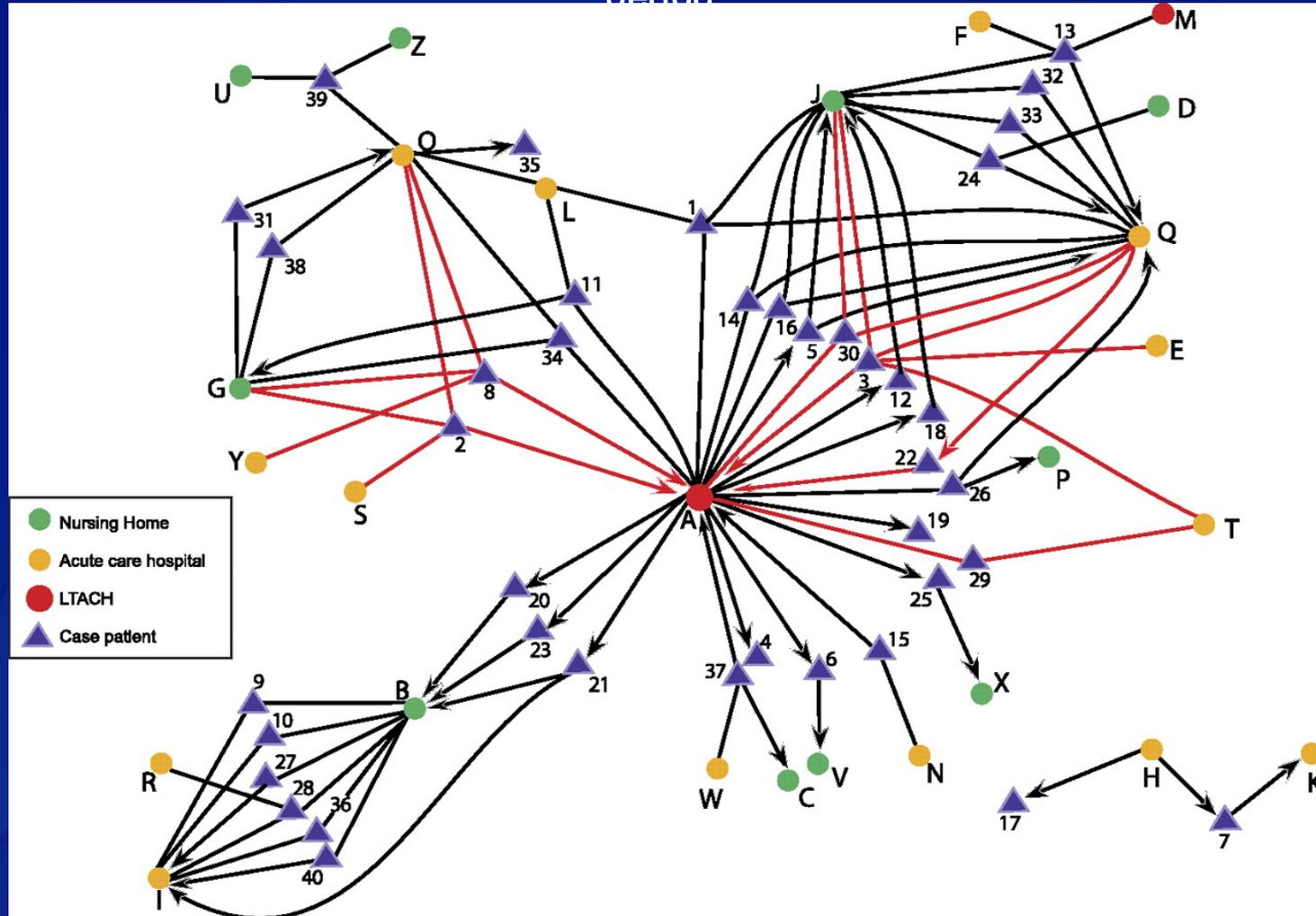
Validation Efforts- Moving Forward

- ❑ CDC is developing some best practice guidance on validation of NHCN data.
 - Guidance is built on experience from many states and designed to be adaptable to local needs.
- ❑ CDC is working with CMS to help ensure that validation efforts are coordinated and complimentary.

HAIs Across the Continuum of Care



Exposure network graph demonstrating the relationships of cases to long-term acute care hospitals (LTACHs), acute care hospitals, and nursing homes during the entire 12-month study period

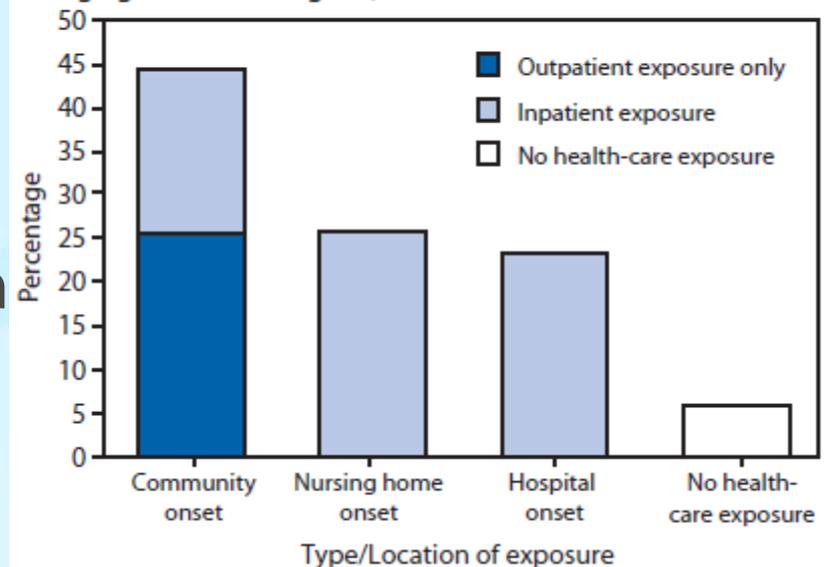


Won SY et al. Clin Infect Dis. 2011;53:532-540

CDIs Largely Health Care Related: Most Develop Symptoms Outside Hospitals

- ❑ 94% health care related
- ❑ 75% of these outside hospitals
 - Nursing home patients
 - Patients in community
 - Outpatient exposures only
 - Recent inpatient exposure
- ❑ 25% hospital inpatients
- ❑ Post-discharge CDI common
 - Most potent antibiotics used in hospitals
 - Lasting effect on patients

FIGURE 1. Percentage of *Clostridium difficile* infection (CDI) cases (N = 10,342), by inpatient or outpatient status at time of stool collection and type/location of exposures* — United States, Emerging Infections Program, 2010



Regional Approach to Prevention is Essential

- Rationale for regional approach
 - What happens in one facility will impact surrounding facilities
 - Individual facilities can control MDROs and *C. difficile* only to a certain point
- Past examples of successful regional MDRO control efforts
 - VRE control in Siouxland region
 - CRE containment in Israel

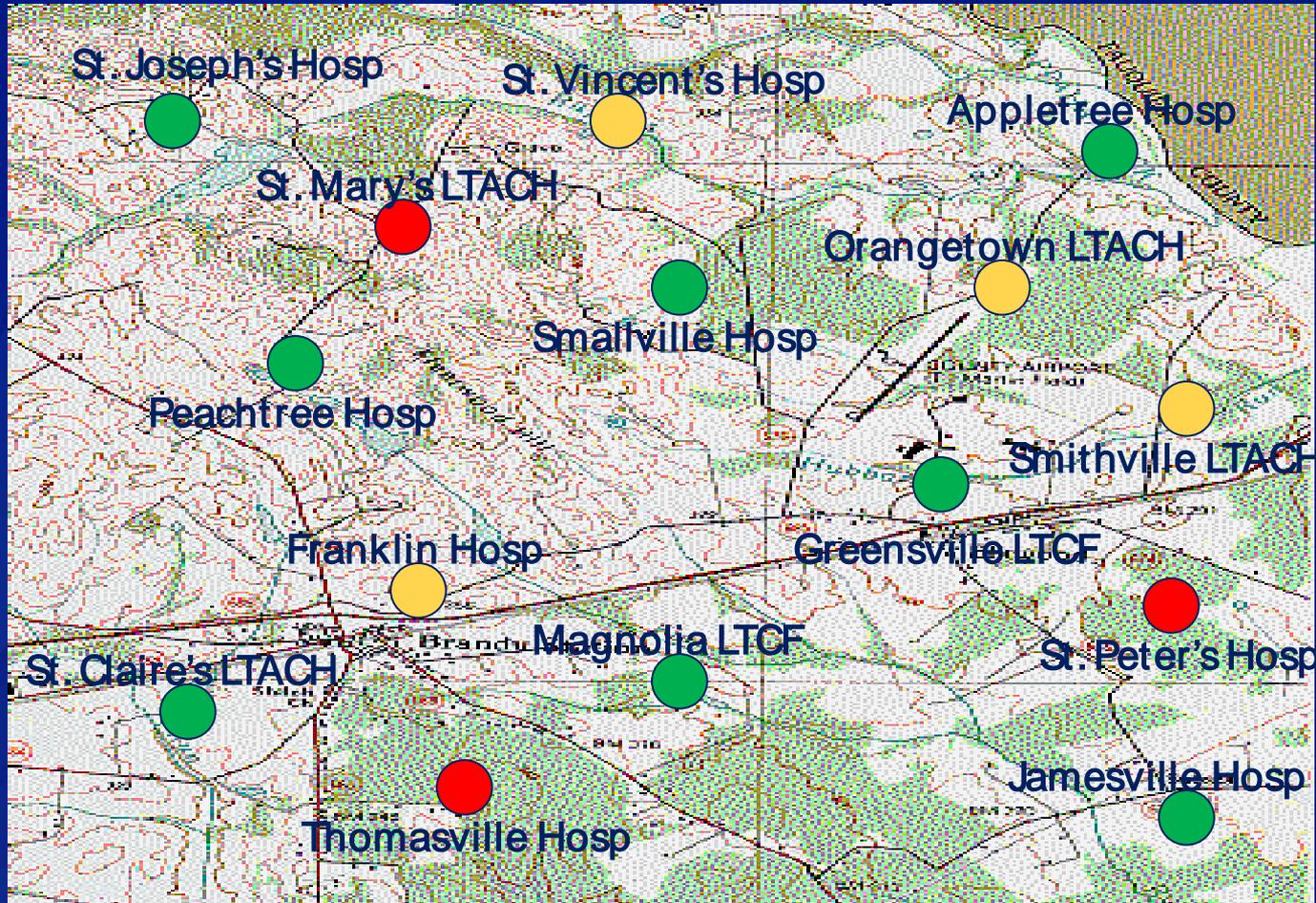
Sohn AH et al. Am J Infect Control 2001;29:53-7.

Schwaber MJ et al. Clin Infect Dis 2011;52:848-55.

Improving Data for Action

- ❑ Regional prevention efforts will require regional data on MDRO/ *C. difficile* prevalence
- ❑ Provide regular and detailed “data for action” on MDRO/ *C. difficile* prevalence

Anywhere County, USA Status Report: CRE



Next Frontiers in HAI Prevention Dialysis

- ❑ Expanding HAI prevention efforts in hemodialysis facilities.
- ❑ Hemodialysis patients are a highly susceptible to HAIs.
 - Very frequent and prolonged contact with healthcare poses risks for MDROs and *C. difficile*
 - Regular venous access creates risks for blood stream infections.

Next Frontiers in HAI Prevention Dialysis

- ❑ CDC is working with dialysis partners on a national project to reduce catheter associated blood stream infections in dialysis patients.
- ❑ Early results are encouraging.

Next Frontiers in HAI Prevention Antibiotic Stewardship

- ❑ Antibiotics are overused in all healthcare settings- as many as half of all antibiotic prescriptions in both in-patient and out-patient settings are either unnecessary or inappropriate.
- ❑ Improving antibiotic use will be critical in efforts to reduce antibiotic resistance and *C. difficile*, while improving patient care and saving money at the same time!

Next Frontiers in HAI Prevention Antibiotic Stewardship

- ❑ One of the major struggles with implementing stewardship is determining exactly what to do.
- ❑ CDC has been working with the Institute for Healthcare Improvement to develop practical guidance on implementing antibiotic stewardship interventions through the IHI's "Driver Diagram and Change Package" methodology.

Next Frontiers in HAI Prevention Antibiotic Stewardship

- ❑ The driver diagram and change package were developed and then pilot tested at several facilities around the country with a wide variety of bed-sizes and resources.
- ❑ The diagram is now being revised based on the pilot testing experience and will be available soon.

Next Frontiers in HAI Prevention Antibiotic Stewardship

- ❑ The goal of the driver diagram is to provide facilities with a number of specific stewardship interventions that are known to work so they can choose among them based on their local needs.

Next Frontiers in HAI Prevention Antibiotic Stewardship

- ❑ A variety of information on in-patient antibiotic stewardship is also available on the CDC's Get Smart for Healthcare website.
- ❑ The AZ health department has been interested and active in antibiotic stewardship for some time now.

Conclusions

- ❑ There are many challenges and opportunities in HAI prevention today.
- ❑ Communication and coordination of the various HAI prevention efforts is more important than ever.
- ❑ The role of the state health department in supporting, coordinating and promoting HAI prevention is vital to our success.