



Epidemiology Unit Activities and Updates for 2013

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BACKGROUND

California continues to be a leader nationally:

- Number of HAIs publically reported
- Making information accessible to public in user friendly formats, including interactive map



MISSION OF THE EPIDEMIOLOGY UNIT

- Mandatory reporting of HAIs (MRSA/VRE BSI, CDI, CLABSI, SSI) and Prevention Measures (CLIP, SCIP, FLU Vaccination)
- Preventing HAIs, improving health care quality, and reducing cost



ADVANTAGES OF REPORTING

- Comparison of infection rates across multiple reports and time
- Opportunities for CDPH Infection Prevention staff to work with hospitals and incentives for hospitals to participate.



STRUCTURE OF PUBLIC REPORTS

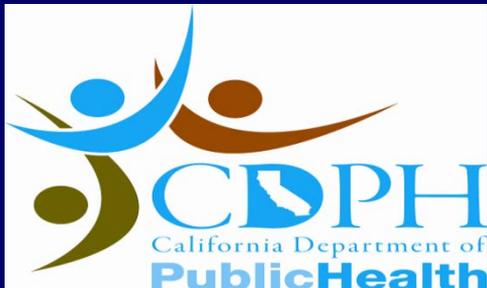
Report web pages include:

- Introductory and explanatory text
- Key Findings and Public Health Actions (link)
- Tables (links)
- Technical Notes (link)
- <http://www.cdph.ca.gov/programs/hai/Pages/default.aspx>



REPORTING PERIODS

- January 2009- March 2010
- April 2010-March 2011
- 2011
- 2012
- For SSI reported 7-9 months of data in 2012; entire year will be reported in 2013



ACTIVITIES

- Learn about the evolving NHSN structure
- Find solutions to data management, analysis, and presentations and communicating them to the hospitals
- Perform routine quality assurance and control of the HAI data
- Work with the Metrics Group
- Produce public reports
- Conduct additional analysis and studies
- Respond to inquiries

ACCOMPLISHMENTS

CLABSI/CLIP

- Hospital reporting is increasing and nearly complete
- CLABSI
 - 2nd using NHSN data
 - Data grouped by patient care locations
 - Use CA calculated average rate for comparison
 - Overall 10% reduction 2010 to 2011
- CLIP
 - Adherence increased to 95.7% for 2011 compared with 94.9% for 2010-2011

ACCOMPLISHMENTS AND PLANS

C. difficile

- *Clostridium difficile*
 - 2nd using NHSN data
 - Reporting non-adjusted rates
 - New CDC NHSN risk adjustment methodology for 2012 data to be reported in 2013
 - Metrics Group has recommended exploring expanded risk adjustment models



ACCOMPLISHMENTS AND PLANS

INFLUENZA

- Health Care Personnel Influenza Vaccination
 - Fourth report
 - Reporting compliance increased to 99.5% for 2011-12 from 98.0% for 2010-11
 - Mean hospital-specific employee vaccination percentage for 2011-2012 was 67.8% compare to 64.3% in 2010-11
 - 2012-2013 flu season vaccination data will be reported through NHSN



ACCOMPLISHMENTS AND PLANS

MRSA/VRE BSI

- 2nd using NHSN data
- Risk stratified – 7 hospital categories
- Major Teaching and Long Term Acute Care higher rates than other categories
- New CDC NHSN risk adjustment methodology for 2012 data to be reported in 2013
- Metrics Group has recommended exploring expanded risk adjustment models



ACCOMPLISHMENTS AND PLANS

SSI

- Surgical Site Infections – 29 operative procedures
 - Seven to nine months of data
 - Risk adjusted – Standardized Infection Ratio (SIR)
 - 193/342 reporting hospitals with at least one SIR
 - 47 outside of normal – 33 low, 11 high and 3 both
 - In 2013 report 12 months of data

ACCOMPLISHMENTS AND PLANS

SCIP

- Surgical Care Improvement Project (SCIP)
 - 2nd report of SCIP antimicrobial prophylaxis measures including April 2010-March 2011 data
 - Adherence percent for most GACHs improved and was close to 100%



ACCOMPLISHMENTS

Interactive HAI Map

- 2nd version includes rate comparisons for hospitals on CLABSI, MRSA/VRE BSI and 9 SSIs
- Search features and links to all HAI-specific web pages
- Version I has been given multiple awards



My Hospital – Healthcare Associated Infections

The HAI Interactive Map

<http://cdph.ca.gov/programs/hai/Pages/MyHospital-HAI.aspx>

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My Hospital – Healthcare Associated Infections

For more information on the infections and map data, see below.

Infection Rates Map

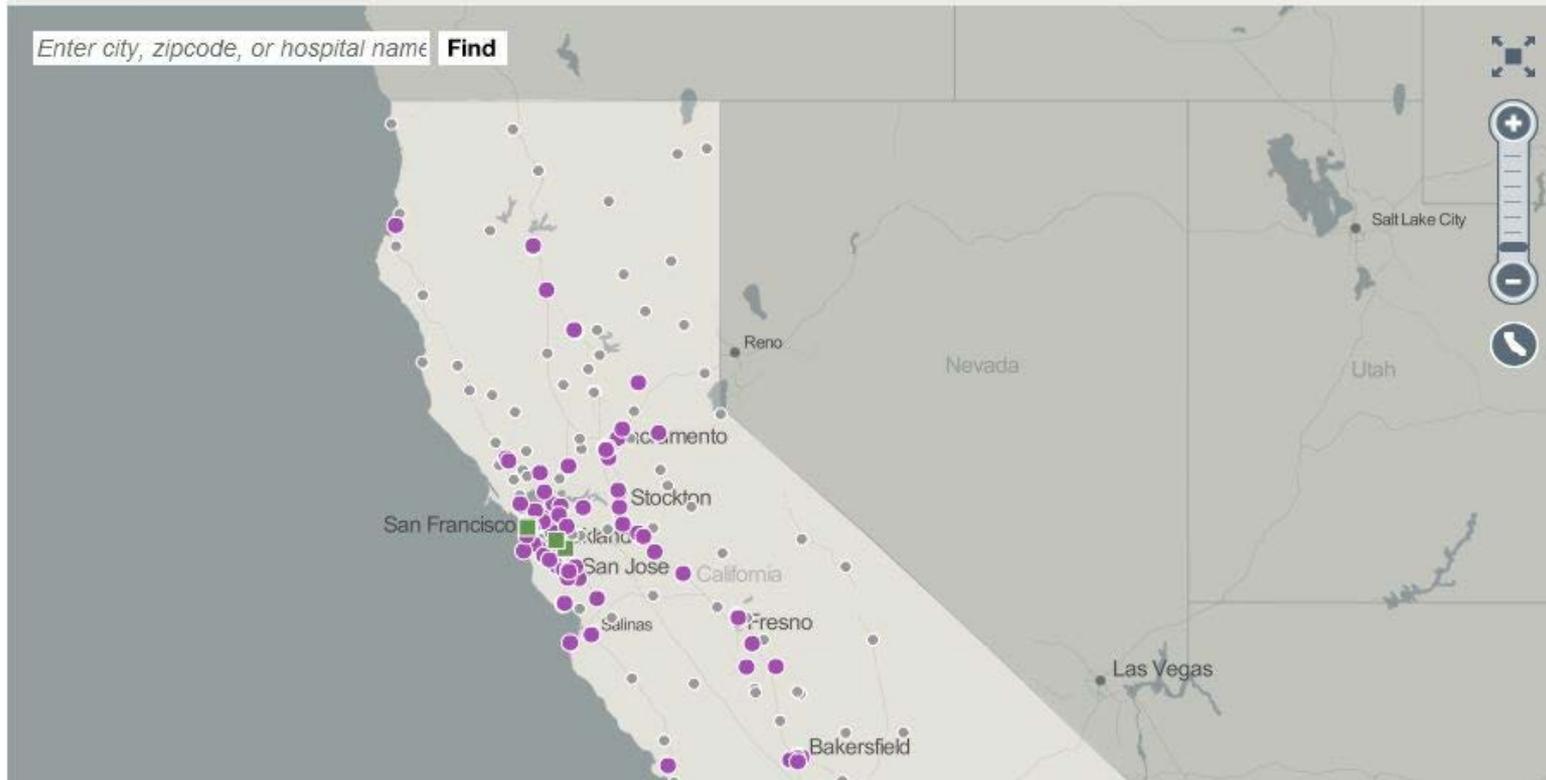
INFECTION CATEGORIES:

BSI: [MRSA/VRE](#)

[CLABSI](#)

SSI for:

[Colon](#)



Timeline

✓ December 2010

- Public Reporting and Education Subcommittee of the HAI Advisory Committee coordinates input to the Program on displaying data accessible to the general public

✓ September 2011

- CDPH's HAIP and ITSD Management establish a strong partnership for web-based communication projects
- The California Health Care Foundation funds the Interactive Map

✓ January 2012

- Version I of the Interactive Map is released
 - Displayed SSI results for 4 procedure categories reported in Second Quarter, 2011 NHSN
 - * Cardiac bypass graft
 - * Hip prostheses
 - * Colon surgery
 - * Knee prostheses



Timeline...

- ✓ August 2012
- **Version II of the Interactive Map is released**
 - Includes CLABSI rates, MRSA BSI and VRE BSI rates and 5 additional SSIs
 - * Cesarean section
 - * Open reduction of fracture
 - * Spinal fusion
 - * Small bowel surgery
 - * Bile duct, liver and pancreatic surgery
 - Data is for 12 months of 2011 (except SSI, where NHSN reporting started in Q2)

Map Development

- **Map developed by contractor**
 - Integration into our website, content and design by interdepartmental efforts (HAI Program and ITSD)
- **Interdepartmental Retrospective after Version II**
 - Utility of obtaining general public feedback
 - Efficiency of converting development to HTML5
 - Need for Version III project to start in March 2013

Recognition for Version I

- ✓ **2012 Silver Award for In-House Website, NPHIC (National Public Health Information Coalition)**
- ✓ **People's Choice Award 2012, GTC West (Government Technology Conference)**
- ✓ **Featured in CDC's Toward Elimination, Newsletter for State Partners in HAI Prevention, Vol. 22, December 2012- p2**
- ✓ **Combined "hits" on the new tool: 44,451**
 - **Version I hits Jan-to-Aug 2012 (8 months): 7,037**
 - **Version II hits Aug-to-Dec 2012 (5 months): 37,414**

Version III and Consumer Focus Groups

- **CDPH, ITSD and CHCF are receptive to Version III**
 - Brief survey was added to the map webpage by HAIP staff for preliminary input: 25% of expected response
 - Consumer focus groups and analysis: Q1 2013
- **Results will inform the team to help**
 - Empower consumers with data
 - Build simple tools of communication for consumers
 - Increase the communication between consumers and clinical setting
 - Prevent infections





Methicillin-resistant *Staphylococcus Aureus* (MRSA) and Vancomycin-resistant Enterococci (VRE) Bloodstream Infections (BSI) in California Hospitals, 2011

This report by the California Department of Public Health (CDPH) on methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant Enterococci (VRE) Bloodstream Infections (BSIs) is the first in the United States using data submitted by California hospitals to the Centers for Disease Control and Prevention (CDC) National Healthcare Safety Network (NHSN). The data was reported from January 1, 2011 through December 31, 2011, through NHSN laboratory-based identification of cases. Hospitals are categorized into one of the following categories: community, major teaching (excluding pediatric), long-term acute care (LTAC), pediatric, critical access, rehabilitation, and prison hospitals. Separation of hospitals into these categories allows comparisons according to type of hospitals and, with caution, between hospitals within these categories.

There are no other reports of MRSA or VRE BSI incidence rates from NHSN data for comparison with this report, so it is not possible to compare these rates from California hospitals with national or other state data. Hospitals are compared within each category to the average rate for all hospitals in that category. Hospitals with significantly higher or lower rates, or those not different than the average for that category are indicated with an H, L, or N. Hospitals could have higher or lower rates of BSIs for a number of reasons, including differences in the severity of illness in their patient populations or in their infection prevention efforts. These data serve as a basis to evaluate BSI rates in California hospitals over time. Definitions, including methods associated with this release are summarized in Technical Notes (see link below).

To view key findings and public health actions for this data release, [see key findings](#)

What's in key findings? This document summarizes the key findings from this data release including introduction, important results, and key public health actions and messages.

The data in this report is presented in the following tables. BSI rates are provided for all hospitals that reported 12 months of data for the reporting period.

MRSA

VRE

[Table 1. Incidence rates of MRSA BSI by hospital type](#) 

[Table 2. Incidence rates of VRE BSI by hospital type](#) 

[Table 3. Incidence rates of MRSA BSI reported by community hospitals](#) 

[Table 10. Incidence rates of VRE BSI reported by community acute care hospitals](#) 

[Table 4. Incidence rates of MRSA BSI reported by major teaching hospital](#) 

[Table 11. Incidence rates of VRE BSI reported by major teaching hospitals](#) 

[Table 5. Incidence rates of MRSA BSI reported by pediatric acute care hospitals](#) 

[Table 12. Incidence rates of VRE BSI reported by pediatric acute care hospitals](#) 

[Table 6. Incidence rates of MRSA BSI reported by long-term acute care hospitals](#) 

[Table 13. Incidence rates of VRE BSI reported by long-term acute care hospitals](#) 

[Table 7. Incidence rates of MRSA BSI reported by rehabilitation hospitals](#) 

[Table 14. Incidence rates of VRE BSI reported by rehabilitation hospitals](#) 

[Table 8. Incidence rates of MRSA BSI reported by critical access hospitals](#) 

[Table 15. Incidence rates of VRE BSI reported by critical access hospitals](#) 

[Table 9. Incidence rates of MRSA BSI reported by prison hospitals](#) 

[Table 16. Incidence rates of VRE BSI reported by prison hospitals](#) 

[Table 17. Months Reported And Cases Of MRSA And VRE BSI Reported By Hospitals Reporting Less Than Twelve Months Of Data](#) 

To view the Technical Notes for the 2011 data release, see [Technical Notes](#)

What is in the technical notes? The Technical Notes contain information on the data sources, definitions, quality assurance and control, data presentation and statistical analyses associated with this data release.

For more information on MRSA and VRE BSI, see [MRSA, VRE and BSI Information](#) 

Prior Public Reports

- [MRSA, VRE and BSI 2009-2010](#)
- [Technical Report: Healthcare-associated Bloodstream Infections in California Hospitals -- 2009-2010 \(PDF, New Window\)](#)

Resources

- [Dialysis BSI Prevention Collaborative \(CDC\)](#)

HAI Program

- ! [New INTERACTIVE MAP](#)
One Hospital at a Time!
- [HAI Program Home Page](#)
- [Contact Us](#)