

Welcome to *California*



The CDPH Healthcare-Associated Infections (HAI) Program: Defining a New Role for Public Health in Patient Safety



CD Rounds
Richmond
July 20, 2015

Lynn Janssen, MC, CIC, CHCQ
Branch Chief
Healthcare Associated Infections Program
Center for Healthcare Quality
California Department of Public Health

Objectives

1. Describe our Program activities for preventing HAI (defined as infections that occur as a result of healthcare)
2. Discuss new defined roles for public health in
 - HAI surveillance and prevention
 - Regional approaches for the control of antimicrobial resistant infections and *C difficile* diarrheal infections
3. Initiate discussions with local public health about how CDPH can best support you in taking an active role in HAI prevention in your communities

HAI Program Leaders

HAI Program Leaders		Primary Responsibility
Lynn Janssen, MS, CIC, CHCQ	Chief, HAI Program	Strategy, operations, performance management, and communications
Erin Epton, MD	Assistant Chief / Public Health Medical Officer	Antimicrobial resistance prevention program
Vicki Keller, RN, MSN, PHN, CIC	Coordinator, HAI Liaison IP Program	Prevention outreach portfolio, onsite infection prevention assessments, onsite data validation (through Dec 2015 only), and annual education plan
Neely Kazerouni, DrPH, MPH	Chief, Epidemiology Unit	Epidemiology, data quality, data analysis, data management, and production of the annual HAI report

HAI Prevention Activities by Funding Source

Activities	Funding Source	Timeframe
State public reporting mandates / Outbreaks in healthcare facilities	Special Fund (Percentage of licensing fees)	2010 & on
Data validation / HAI prevention outreach to hospitals	L&C Interdepartmental Quality Improvement Activity Funds	2013-2015
Antimicrobial Resistance Program, Dialysis BSI Prevention Program, Injection Safety Program	CDC Epidemiology and Laboratory Capacity (ELC)	2014-2019
Assessment for CA Ebola hospitals and strengthening outbreak response	CDC ELC Ebola Supplemental A1	2015-2017
Expanding healthcare assessments to build infection prevention capacity broadly	CDC ELC Ebola Supplemental A2	2016-2018

CDPH HAI Program Epidemiology Unit



Supervisor – Dr. Neely Kazerouni

HAI in California Hospitals - Annual Report

- Data reported by 400 acute care hospitals (no exclusions for size) to the National Healthcare Safety Network (NHSN)
- Published via a web page that includes
 - Summary report of key findings and public health action
 - 90 data tables
 - Interactive map
 - Technical reports for each infection type

My Hospital's Infections

Search Hospital Name or City

Hospital Data

CDI

CLABSI

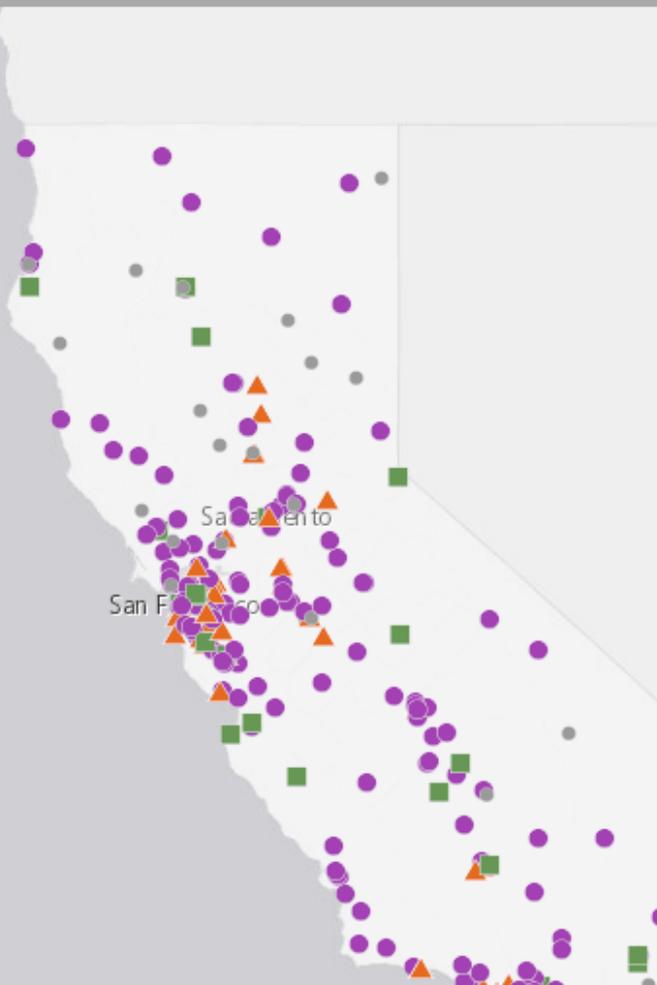
MRSA

VRE

SSI



San Francisco Bay Area
Los Angeles Area



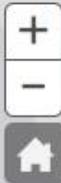
LEGEND

LOWER SAME HIGHER

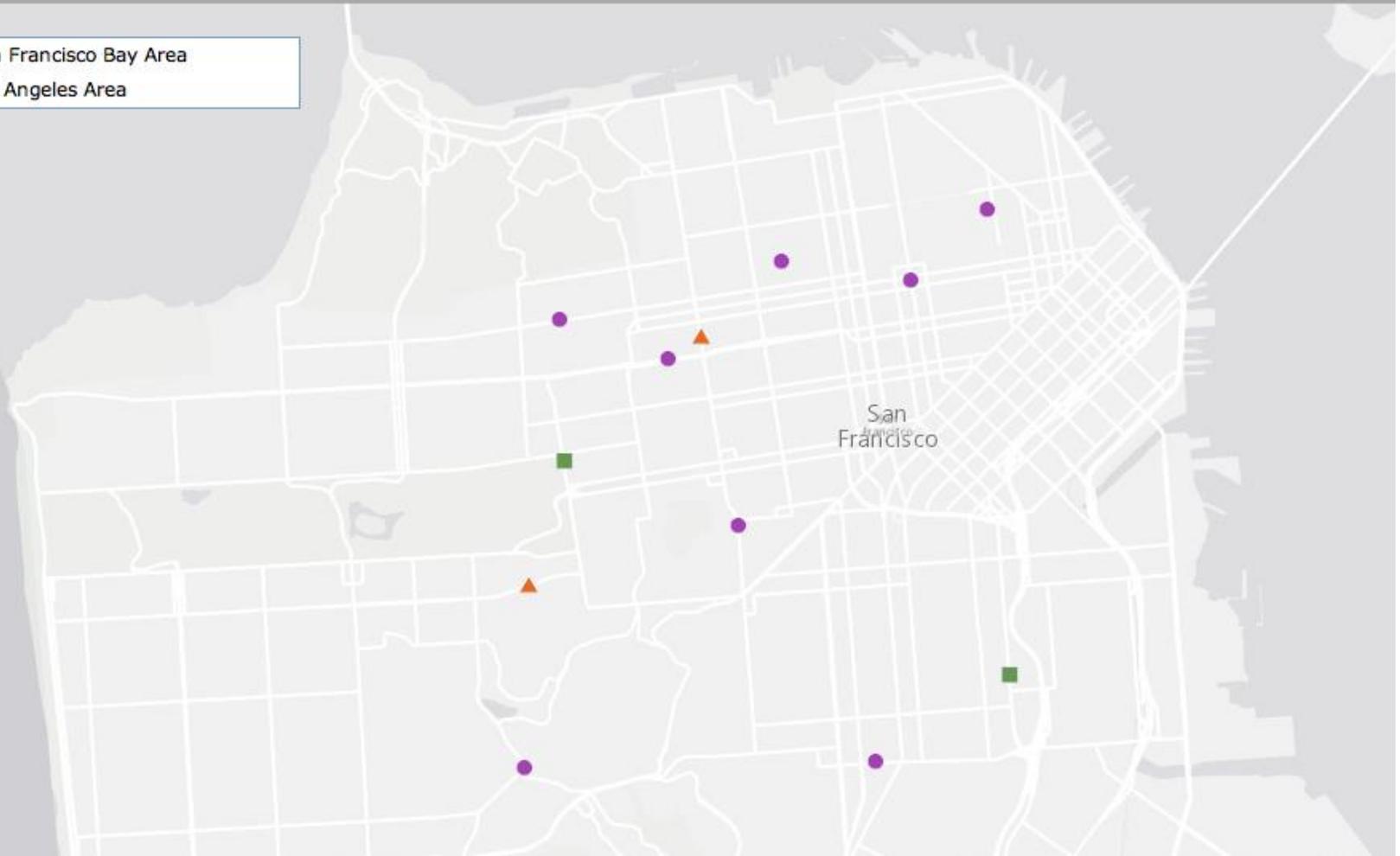
Infection rates in each hospital are compared with the California average for CLABSI and VRE BSI and with the US national average for CDI, MRSA BSI and SSI. Lower is better.

Not enough data for comparison.

My Hospital's Infections

[Hospital Data](#)[CDI](#)[CLABSI](#)[MRSA](#)[VRE](#)[SSI](#)

San Francisco Bay Area
Los Angeles Area





California Hospital HAI Profile, 2013 Data

San Francisco General Hospital

CLABSI

Medical ICU in Major Teaching Hospital

Trauma ICU

Neonatal ICU - Neonates \leq 750 grams

Neonatal ICU - Neonates 751-1000 grams

Neonatal ICU - Neonates 1001-1500 grams

Neonatal ICU - Neonates 1501-2500 grams

Neonatal ICU - Neonates $>$ 2500 grams

Adult Step-down Ward

Medical/Surgical Ward

Surgical Ward

Labor, Delivery, Post Partum Ward

Oncology Ward - Temporary Central Lines



SSI

Abdominal Hysterectomy

Bile Duct, Liver, Pancreas

Cesarean Section

Colon Surgery

Coronary Artery Bypass

Fracture Repair

Hip Replacement

Knee Replacement

Small Bowel Surgery

Spinal Fusion



MRSA BSI



VRE BSI



CDI



LEGEND

NO COMPARISON
 LOWER
 SAME
 HIGHER

Infection rates in each hospital are compared with the California average for CLABSI and VRE BSI and with the US national average for CDI, MRSA BSI and SSI. Lower is better.

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Categories

- (All)
- Demographics
- Diseases and Conditions**
- Environment
- Facilities and Services
- Healthcare
- Workforce

Topics

- cross infection
- epidemiology
- healthcare
- hospitals

Results matching category of Diseases and Conditions



Most Relevant

	Name		Popularity	Type
1.	West Nile Virus Cases, 2006-present Diseases and Conditions west nile virus, human cases This dataset contains positive cases of West Nile virus found in humans, 2006-present. Humans usually becom		1,140 views	
2.	West Nile Virus Cases, 2006-present Diseases and Conditions west nile virus, human cases This dataset contains positive cases of West Nile virus found in humans, 2006-present. Humans usually becom		813 views	
3.	Smoking Prevalence in Adults, 1984-2013 Diseases and Conditions cigarettes, smoking, tobacco, adult, ... Adult smoking prevalence in California, males and females aged 18+, starting in 1984. Caution must be used w		754 views	
4.	West Nile Virus Cases, 2006-present, Los Angeles Diseases and Conditions west nile virus, human cases This dataset contains positive cases of West Nile virus found in humans, 2006-present. Humans usually becom		574 views	
5.	WNV Cases by County Graph Diseases and Conditions west nile virus, human cases This dataset contains positive cases of West Nile virus found in humans, 2006-present. Humans usually becom		501 views	
6.	Newborn Screened Disorders, 2009-2013 Diseases and Conditions newborn screening, disorders, california, rusp This table presents counts of disorders that have been diagnosed by the California Newborn Screening progra		474 views	
7.	Asthma Emergency Department Visit Rates by County in 2012 Diseases and Conditions asthma, let's get healthy california, ... This dataset contains counts and rates (per 10,000 residents) of asthma (ICD9-CM, 493.0-493.9) emergency d		435 views	
8.	Surgical Site Infections (SSIs) For 24 Operative Procedures, 2013 Diseases and Conditions abdominal, aortic aneurysm, appendicitis, ... This table shows the Centers for Disease Control and Prevention National Healthcare Safety Network (NHSN) r		424 views	
9.	Newborn Screened Disorders by California Regions, 2009-2013 Diseases and Conditions newborn screening, disorders, california, ... This table presents counts of disorders that have been diagnosed by the California Newborn Screening progra		409 views	
10.	Smoking Prevalence in High School, 2001-2012 Diseases and Conditions youth, cigarette, smoking, tobacco, ... The California Tobacco Control Program (CTCP) coordinates statewide tobacco control efforts and funds the C		350 views	



Open Data Portal Data Display

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Unsaved View Save As... Revert

Based on Surgical Site Infections (SSIs) For 24 Operative Procedures, 2013

This table shows the Centers for Disease Control and Prevention National Healthcare Safety Network (NHSN) risk adjusted standardized infection ratios (SIR) for surgical site infections (SSIs) reported by hospitals for 24 operative

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	State	HAI	Operative_Procedure	Facility_Name1	County	Procedure_Count	Infection_Count	SIR	Comparison
1	California	SSI	Hip prosthesis	Adventist Medical Center, Hanford	Kings-Fresno	118	0	0	No Difference
2	California	SSI	Hip prosthesis	AHMC Anaheim Regional Medical Center, Anaheim	Orange	88	0	0	No Difference
3	California	SSI	Hip prosthesis	Alameda County Medical Center, Oakland	Alameda	52	0		
4	California	SSI	Hip prosthesis	Alameda Hospital	Alameda	23	0		
5	California	SSI	Hip prosthesis	Alhambra Hospital Medical Center	Los Angeles	~			
6	California	SSI	Hip prosthesis	Alta Bates Summit Medical Center, Alta Bates Cam	Alameda	193	0	0	No Difference
7	California	SSI	Hip prosthesis	Alta Bates Summit Medical Center, Oakland	Alameda	217	1	0.54	No Difference
8	California	SSI	Hip prosthesis	Alvarado Hospital Medical Center, Campus #1, San	San Diego	71	0		
9	California	SSI	Hip prosthesis	Antelope Valley Hospital, Lancaster	Los Angeles	183	1	0.5	No Difference
10	California	SSI	Hip prosthesis	Arrowhead Regional Medical Center, Colton	San Bernardino	80	0	0	No Difference
11	California	SSI	Hip prosthesis	Bakersfield Heart Hospital	Kern	25	0		
12	California	SSI	Hip prosthesis	Bakersfield Memorial Hospital	Kern	112	1	0.96	No Difference

Annual Report of HAI in California Hospitals, 2013

	No. of HAI Reported by California Hospitals in 2013	2013 California HAI Data Compared with National Baselines*
CDI	10,553	↑ 5% since 2011
CLABSI	2836	↓ 48% since 2008
MRSA BSI	698	↓ 27% since 2011
VRE BSI	753	<i>No national baseline</i>
SSI – All Surgeries	3,940	↓ 44% since 2008
SSI – Colon Surgery	686	↓ 18% since 2008
SSI – Hysterectomy	152	↓ 28% since 2008

Influenza Vaccination Among Health Care Personnel in California Hospitals - Annual Report

- Data reported by 400 acute care hospitals to NHSN
- Published via a web page that includes report of key findings and public health actions, 5 data tables, technical report
- 2013 data continued to show incremental improvement in HCP vaccination rates
 - Employees – 81%
 - Non-employee HCP – 63%

CDPH HAI Program Liaison IP Program



Supervisor – Vicki Keller

Liaison Infection Preventionist (IP) Program

- Regionally-based Liaison IPs, highly experience, certified in infection control and epidemiology (CIC)
- Assigned approximately 45 hospitals each
- Conduct monthly regional calls to connect with their area hospitals and relay updates from CDPH HAI Program
- Expanding to non-hospital settings in 2016

HAI Data for Action Strategy

- Third year of performing outreach to hospitals with high HAI incidence as indicated in the annual public report
- 112 hospitals* with statistically high infection incidence in 2013 identified and prioritized
 - *Clostridium difficile* infection - 62 hospitals
 - CLABSI - 28 hospitals
 - Surgical site infections – 26 hospitals
 - MRSA/VRE bloodstream infections – 27 hospitals

*Some hospitals had more than one infection type with high incidence

Liaison IP Hospital Assessment Visits

- HAI Program sent letters (via email) to all hospitals with high incidence of infections in March 2015
- Liaison IPs followed up with targeted hospitals in their respective regions to schedule one-day assessment visit
 - Goal: to help identify areas for improvement
 - Review hospital HAI data including Targeted Area for Prevention (TAP) reports
 - Observe infection prevention practices
 - Provide feedback of adherence and offer evidence based recommendations at the end of the day
 - Follow up with assistance and sustainability

Liaison IP Visits to Improve Surveillance and Reporting

- 3-year validation plan, approved by HAI Advisory Committee
- In 2014 HAI Program Liaison IPs performed validation of reported CLABSI, SSI, CDI and MRSA/VRE BSI in 234 hospitals
 - 86 hospitals identified with case-finding less than 85% for CDI or MRSA/VRE BSI or failed to identify/report one or more CLABSI
- In 2015, Liaison IPs will perform follow-up visits
 - On-site assistance to review surveillance methods
 - Provide guidance on use of self-validation toolkits

Liaison IP Hospital Assessment Visits Through July 2015

- Data For Action Hospitals, 112
 - Declined visit; Submitted Process Improvement Plan - 13
 - Completed - 51
 - Upcoming appointments - 48
- Improve Surveillance & Reporting based on 2014 Validation (Case-finding gaps), 86
 - Re-Validation Completed - 13
- CDI Collaborative Facilities, 40
 - Acute Care Completed - 10
 - Long Term Care Facilities Completed - 14
 - LTAC Hospitals Completed - 2

California Campaign to Prevent Bloodstream Infections in Hemodialysis Patients

- 514 outpatient hemodialysis centers in California
- HAI Program staff include a full-time Dialysis Liaison IP and part-time nurse consultant
- Five-year plan to provide onsite assessments and strategies to prevent bloodstream infections
 - One-day assessments of adherence to CDC prevention strategies with same day feedback
 - Webinars, website, and a one-day infection prevention class

CDPH Lead for Coordination of Ebola Hospital Preparedness

HAI Coordinator, Lori Schaumleffel

- Ebola Treatment Centers – CDPH onsite assessments completed in collaboration with CDC
 - Northern California – November 2014
 - Southern California – December 2014
- Deploy a CDPH Ebola Assessment Team
 - HAI Liaison IP assigned to the facility
 - Laboratory safety specialist
 - Occupational health specialist
 - Waste management specialist



Coordinate with Local Public Health Officer and local EMS

California Ebola Treatment Centers

- 5 University of California Medical Centers
 - UC Davis Health System
 - UC San Francisco Medical Center
 - UCLA Medical Center
 - UC Irvine Medical Center
 - UC San Diego Medical Center
- 3 Kaiser-Permanente Hospitals
 - Kaiser Permanente Medical Center – South Sacramento
 - Kaiser Foundation Hospital – Oakland
 - Kaiser Foundation Hospital – Los Angeles

California Ebola Assessment Hospitals

- 8 Ebola Treatment Centers (5 UCs, 3 Kaisers)
- Geographically located facilities
 - Northern California – Mercy Medical Center Redding
 - Central California – Pending
 - LA County – Cedars Sinai Medical Center
- Demographically needed facilities
 - Pediatric Facilities
 - Children’s Hospital of Los Angeles
 - Another facility pending

Monitoring Ebola Readiness

Evaluation of minimum capability in 11 domains

1. Facility Infrastructure/Patient Rooms	7. Waste Management
2. Patient Transportation	8. Worker Safety
3. Laboratory	9. Environmental Services
4. Staffing	10. Clinical Management
5. Training	11. Operations Coordination
6. PPE	

Expanded Onsite Infection Control Assessments with Feedback / Follow-up

By March 2016

- 60 high HAI incidence hospitals (2014 published data)
- 15 Ebola readiness hospital visits
- 80 LTC facilities identified by CDPH L&C district offices*
- 68 Outpatient hemodialysis clinics
- 30 Outpatient facilities at risk for unsafe injection practices*



*excluding LA County

CDPH HAI Program Antimicrobial Resistance Program



Supervisor – Dr. Erin Epon

Antimicrobial Resistance: A Substantial and Increasing Problem in California

- **260,000 illnesses** and nearly **3,000 deaths** in CA each year
- ***Clostridium difficile* infections (CDI)**
 - 10,553 hospital onset-CDI reported by CA hospitals in 2013
 - 5% increase since 2011
- **Carbapenem-resistant Enterobacteriaceae (CRE)**
 - Regional variation, with higher prevalence in southern CA in 2012
 - Recent outbreaks in northern CA suggest potential emergence in previously lower prevalence areas

Core Actions to Address Antimicrobial Resistance

- **Improve antimicrobial prescribing** through antimicrobial stewardship
- **Preventing infections and transmission** of antimicrobial resistant pathogens
- **Tracking antimicrobial resistance** patterns

California is a Leader in Antimicrobial Stewardship Legislation

- **California Senate Bill 739** – By January 1, 2008
 - Hospitals required to develop process for monitoring judicious use of antibiotics, sharing results with quality improvement committee(s)
- **California Senate Bill 1311** – By July 1, 2015
 - Antimicrobial stewardship policy in accordance with federal/professional guidelines
 - Physician-supervised multidisciplinary committee
 - Physician or pharmacist with AS knowledge/training
 - Report to quality improvement committees

CDPH ASP Definition – 11 Elements

Basic	Intermediate	Advanced
1. Antimicrobial stewardship policy/procedure adopted	5. Annual antibiogram developed, distributed, and medical staff educated	9. Antimicrobial formulary reviewed annually and changed based on antibiogram
2. Physician-supervised multidisciplinary committee formed	6. Institutional guidelines for management of common infection syndromes developed	10. Prospective audits performed, with intervention/feedback to prescribers
3. Physician or pharmacist ASP leader received specific stewardship training	7. Antibiotic usage patterns monitored using DDD or DOT	11. Formulary restriction with preauthorization adopted
4. ASP activities reported to hospital quality improvement committees	8. Medical staff/committees provided ongoing ASP education	<div data-bbox="1302 1219 1901 1412" style="border: 2px solid blue; padding: 10px; text-align: center;"> <p>Recommended by HAI Advisory Committee, Dec 2013</p> </div>

Spotlight on ASP Project

www.cdph.ca.gov/programs/hai/Pages/AntimicrobialStewardshipProgramInitiative

Spotlight on Antimicrobial Stewardship Programs

The following hospitals have agreed to share progress on the implementation of their Antimicrobial Stewardship Programs (ASP). Activities listed were defined by the California HAI Advisory Committee as those that comprise varying levels of Program implementation. An "✓" indicates the hospital is currently performing the activity.

	Basic Program				Intermediate Program				Advanced Program		
	1. Institution-specific antimicrobial stewardship policy and/or procedures adopted	2. Physician-supervised multidisciplinary ASP committee or workgroup convened	3. ASP support provided by a physician or pharmacist with antimicrobial stewardship training from a recognized professional organization or post graduate education	4. ASP activities routinely reported to hospital quality improvement committees	5. Annual antibiogram developed (using CLSI guidelines), distributed to medical staff, and follow-up education provided.	6. Institutional guidelines for the management of common infection syndromes adopted (e.g., order sets, clinical pathways, empiric antimicrobial therapy guides, etc.)	7. Usage patterns of antibiotics (determined to be important to the local resistance ecology) monitored using Defined Daily Dosing (DDD)	8. Regular antimicrobial stewardship education provided to hospital staff and committees	9. Antimicrobial formulary reviewed annually and changes made based on local antibiogram	10. Prospective audits of antimicrobial prescriptions performed and intervention/feedback provided	11. Formulary restriction with preauthorization implemented
YOUR HOSPITAL NAME HERE											
City, Hospital Type, bed size											
ID Physician:											
ID Physician email											
Pharmacist:											
Pharmacist email	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

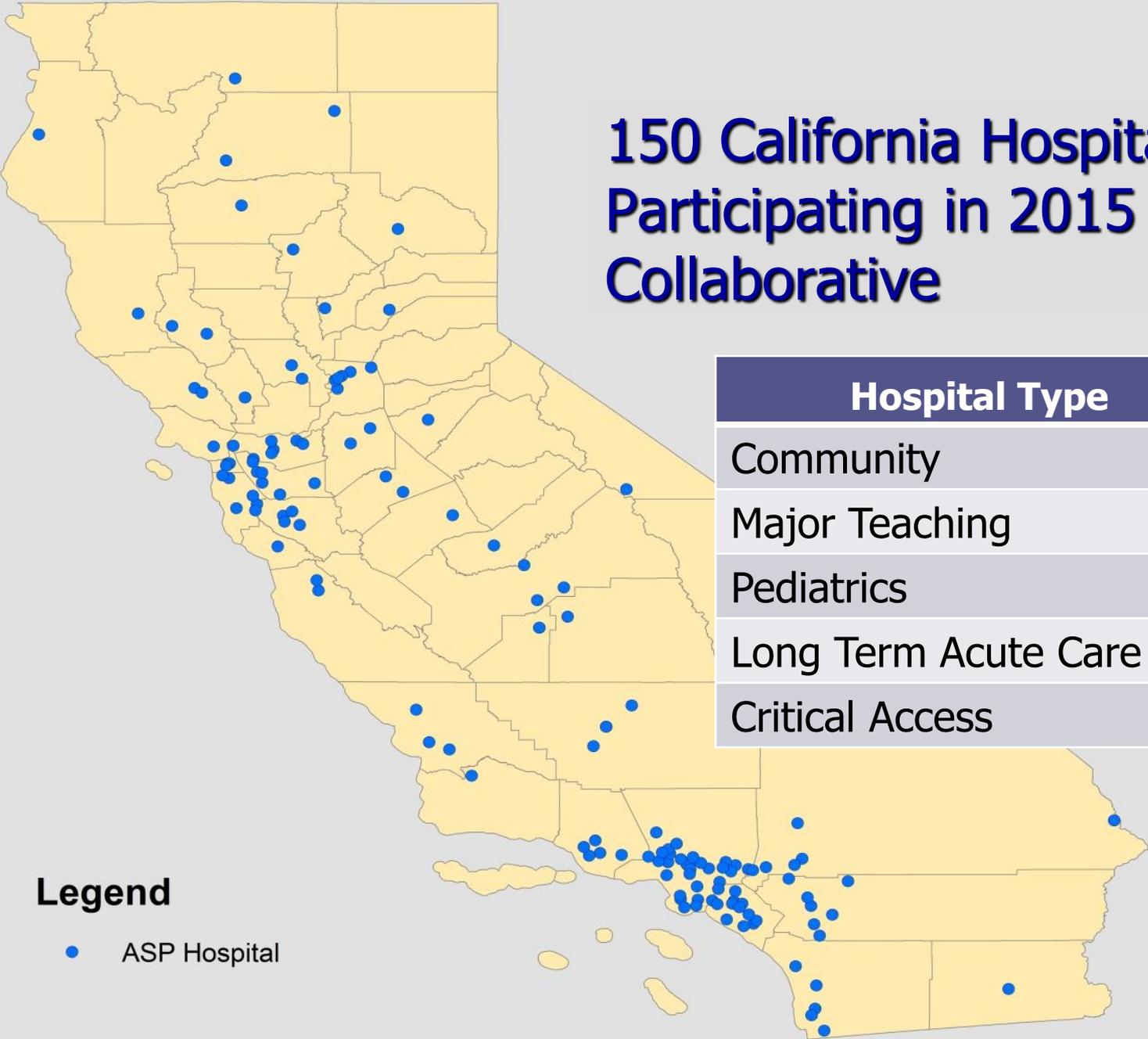


“The Spotlight on Antimicrobial Stewardship Programs project helps define antimicrobial stewardship programs and activities, and spotlights volunteer hospitals that wish to highlight their programs and share their progress with others. The Spotlight on ASP Project Invitation 2014 remains open to allow additional hospitals to participate – Join today!”

California ASP Collaborative

- **Provide a forum to support California hospitals to develop or enhance ASPs**
 - Promote patient safety
 - Decrease CDI and antimicrobial resistance
- Facilitate compliance with CA Senate Bill 1311
- One-year project launched in January 2015

150 California Hospitals Are Participating in 2015 ASP Collaborative



Hospital Type	No. (%)
Community	122 (81)
Major Teaching	5 (3)
Pediatrics	8 (5)
Long Term Acute Care	9 (6)
Critical Access	7 (5)

Legend

• ASP Hospital

Antimicrobial Use and Informatics Capability Survey

- Sent to all California hospitals July 2, 2015
- Objectives are to gain a better understanding of
 - How/if hospitals are measuring antimicrobial use
 - What data resources are available in hospitals that may facilitate measuring antimicrobial use using CDC's NHSN system
 - How the CDPH HAI Program can help hospitals to advance antimicrobial use measurement
- Preliminary results under review; survey closes Aug 31

Developing a Model Regional Approach to Antimicrobial Resistance and CDI Prevention

Objectives:

1. Assess and improve hospital and LTC facility adherence to infection prevention practices

- Contact precautions
- Hand hygiene
- Environmental cleaning

2. Implement/enhance antimicrobial stewardship program with particular attention to CDI

3. Monitor inter-facility transfer to maintain AR/CDI patients on precautions throughout continuum of care

• Inter-facility Transfer Program



Orange County CDI Prevention Collaborative

Facilities Enrolled – Kick-off Meeting held June 29, 2015

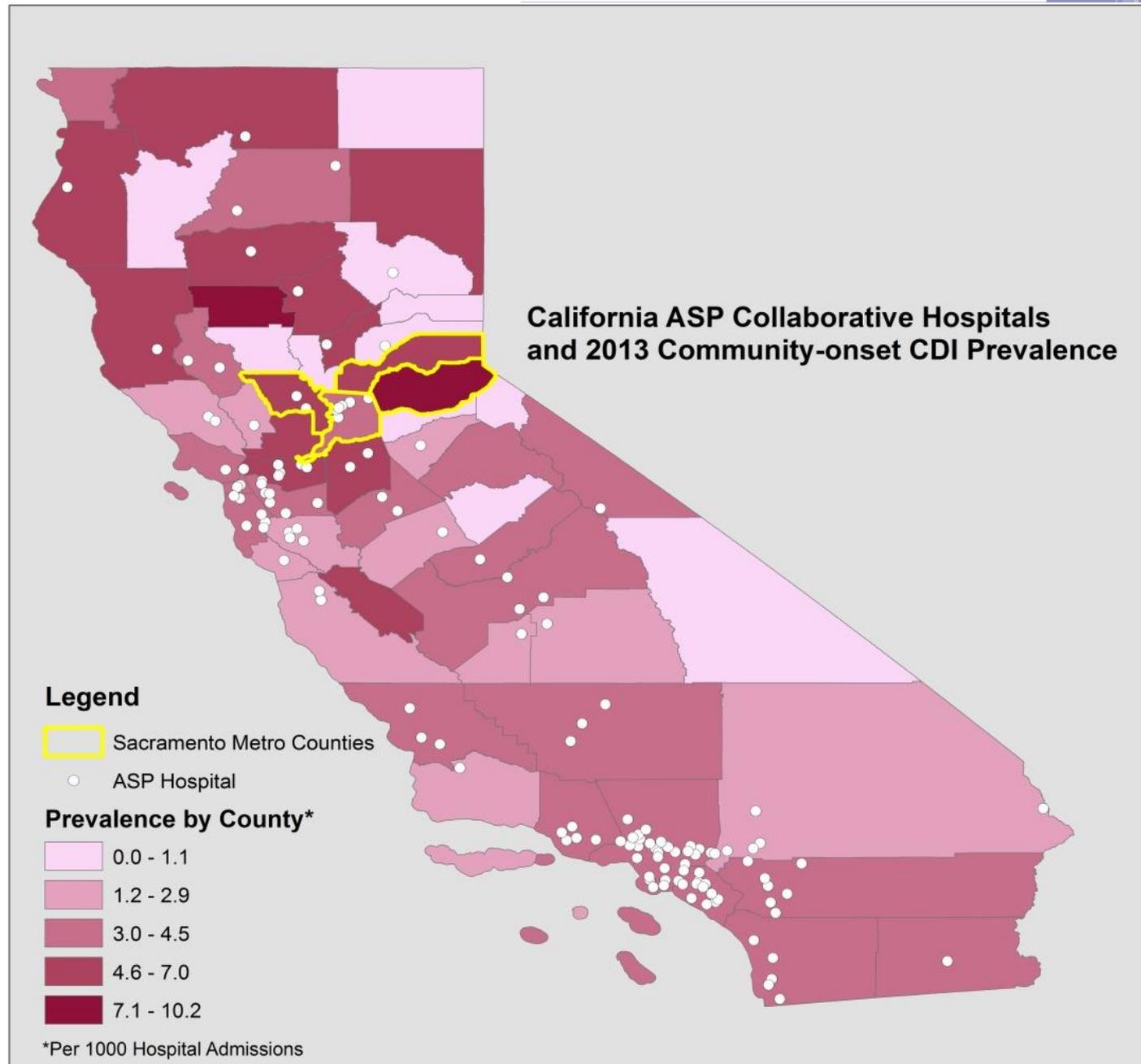
- 17 General Acute Care Hospitals
- 3 Long-Term Acute Care Hospitals
- 20 Skilled Nursing Facilities (SNF)

HAI Program staff providing:

- Online educational webinars, trainings, onsite visits and consultations
- A forum for sharing of tools and resources among facilities
- Assistance with NHSN enrollment and training for SNF to enable CDI surveillance



Identifying Target Area for the Next Regional CDI Prevention Collaborative



Carbapenem-resistant Enterobacteriaceae (CRE)

- One of 3 bacteria identified by CDC as an urgent threat
- CRE are resistant to the carbapenem class of antibiotics
Carbapenems often used to treat infections caused by bacteria that are resistant to other kinds of antibiotics
- Invasive CRE infections result in up to 50% mortality
- CRE are highly transmissible in healthcare settings
CRE resistance can be transferred between different bacterial species



California CRE Prevalence Survey

1. To educate California hospital infection prevention personnel about CRE
 - Facilitate communication and collaboration between infection prevention and microbiology
2. Determine regional prevalence of CRE in California among general acute care hospitals in 2012
 - Assist local public health and healthcare facilities to better utilize the CDC CRE toolkit

California CRE Prevalence Survey – Methods

- All acute care hospitals including long-term acute care (LTAC) contacted
- To determine hospital prevalence of CRE in 2012 among all *Klebsiella* isolates tested
- Defined CRE as *Klebsiella* spp. that tested non-susceptible to a carbapenem (a broad definition)

CRE *Klebsiella* Prevalence in California – 2012

Hospital Type	Responding Hospitals	# CRE	# Isolates Tested	Pooled Mean Prevalence
General Acute Care	297	2,264	72,387	3.1% *
Long Term Acute Care	22	1,152	2,220	51.9%

* More than half of all general acute care hospitals reported **zero** CRE isolates in 2012

Regional Prevalence of CRE *Klebsiella* Species, 2012

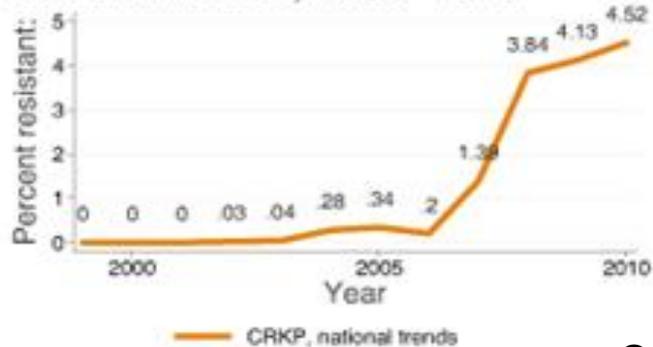
Regions	Number of Hospitals*	CRE Klebsiella Isolates	Total Klebsiella Isolates	CRE Resistance Percentage
Sierras	5	0	467	0.00%
Sacramento Metro	13	2	3,643	0.05%
San Joaquin Valley	36	27	9,102	0.30%
Far North	29	13	4,244	0.31%
Bay Area	49	41	11,596	0.35%
Central Coast	16	13	2,015	0.65%
San Diego	18	230	8,122	2.83%
Inland Empire	31	270	7,472	3.61%
Los Angeles-Orange	100	1668	25,828	6.46%
Total	297	2,264	72,489	3.12%

Carbapenem-resistant *Klebsiella pneumoniae*

US Regions, 2009-2010



National trends, 1999-2010



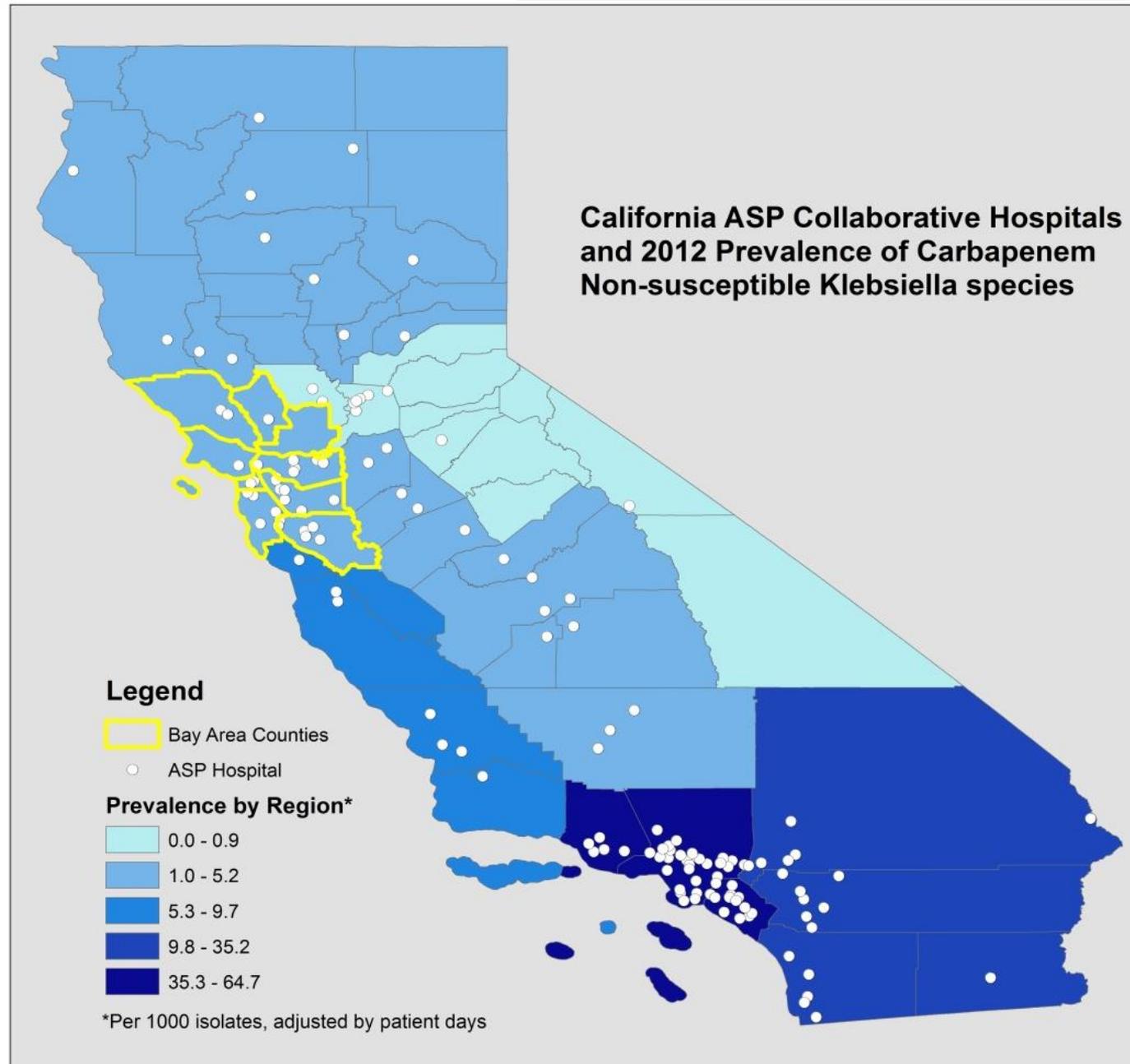
ResistanceMap
cddep.org/map

Courtesy of Arjun Srinivasan, CDC

Summary

1. LTAC hospitals have significantly higher prevalence than other general acute care hospitals
2. CRE prevalence is significantly higher in southern California
3. California has a lower prevalence of CRE compared with other US regions
4. Effective CRE prevention will require a coordinated response

Identifying Target Area for a Regional CRE Prevention Collaborative



California Antimicrobial Resistance (AR) Laboratory Surveillance Network (*Proposed*)

- **Determine and monitor AR prevalence**
- **Assess laboratory AR capacity**
 - Identify and characterize AR pathogens
 - Perform surveillance cultures
 - Electronically report laboratory data
- **Establish network** of clinical laboratories, hospital infection prevention staff, and state and local public health agencies
 - Share/receive regional AR prevalence data, determine AR reference testing resources

CDPH HAI Program Communications Team

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Healthcare-Associated Infections (HAI) Program

The Healthcare-Associated Infections (HAI) Program is one of two programs in the [Center for Health Care Quality](#) of the [California Department of Public Health](#). The Program was created by mandate to oversee the prevention, surveillance and reporting of healthcare-associated infections in California's general acute care hospitals. HAIs are the most common complication of hospital care. It is estimated that each year there are 722,000 infections, 75,000 deaths, and 1 in 25 hospital patients at any given time has an infection contracted during the course of their hospital care. HAIs result in an estimated \$30 billion in excess healthcare costs nationally each year. Since 2010, the HAI Program has: produced annual public reports of hospital HAI data to inform choices of healthcare consumers and prompt providers to take actions to prevent infections; actively engaged in HAI prevention by performing site visits to hospitals with high infection rates, convening prevention collaboratives, and providing infection prevention education; and provided consultation and assistance to local public health for infection outbreaks that occur in healthcare facilities. The vision of the HAI Program is to eliminate HAIs for all Californians.

What You Can Do To Prevent HAI

<p>Me And My Family</p> 	<p>Healthcare Providers</p> 	<p>Public Health Partners</p> 	<p>HAI Committee & Laws</p> 	<p>My Hospital's Infections Map</p> 	<p>Annual HAI Report</p> 
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Healthcare Associated Infections - Advisory Committee

→ [HAI Advisory Committee](#)

Antimicrobial Resistance

- [New CDPH Antimicrobial Stewardship Program \(ASP\) Toolkit 2015](#)
- [Antimicrobial Resistance](#)
- [California Antimicrobial Stewardship Program Initiative](#)
- [Spotlight on Antimicrobial Stewardship Program Project Invitation 2014](#)

Public Reporting - Preventing Hospital Infections

- [New HAI Information and Reports 2013 HAI Annual Report Now Published](#)
- [New My Hospital's Infections Map Interactive Map 2013 Data -- This map can be used with some mobile devices and tablets.](#)
- [New Healthcare Personnel Influenza Vaccination Reports Annual Report Now Published for 2013-2014 Respiratory Season](#)

HAI Education for Healthcare Professionals

- [New California One and Only Campaign - Injection Safety](#)
- [Updated Basics of Infection Prevention Guidelines Two-Day Mini Course](#)
- [Sustaining Infection Prevention Progress](#)
- [Educational Offerings by HAI Program Staff -- 2015 Educational Calendar](#)

Resources

- [Association of Professionals in Infection Control and Hospital Epidemiology \(APIC\) -- selected links](#)
- [Centers for Disease Control and Prevention \(CDC\) -- selected links](#)
- [Society for Healthcare Epidemiology of America \(SHEA\) -- selected links](#)
- [Infectious Diseases Society of America \(IDSA\) \(New Window\) -- selected links](#)
- [UCSD Infection Prevention Course -- Designed to Meet CA SB 158 Requirements \(PDF, New Window\)](#)

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[My Hospital's Infections Map](#)



[Annual HAI Report](#)



Me and My Family: What Can We Do To Prevent HAI?

HAI Educational VIDEOS

- [CLABSI Prevention Information](#)
Central line-associated bloodstream infection
- [CDI Prevention Information](#)
Clostridium difficile (C. difficile, C. diff) infection
- [MRSA Prevention Information](#)
Methicillin-resistant Staphylococcus aureus infection
- [SSI Prevention Information](#)
Surgical Site infection
- [VRE Prevention Information](#)
Vancomycin-resistant Enterococcus infection
- [Healthcare Associated Infections in the US](#)
- [Snort Sniffle Sneeze: No Antibiotics Please!](#)
- [Partnering To Heal Interactive Video](#)
Team Up: Increase your awareness of the risks of HAIs and how you can prevent them
- [Put Your Hands Together](#)
Emphasis of proper hand hygiene
- [Handwashing Saves Lives](#)
The importance of this practice
- [Questions are the the Answer!](#)
Questions can help you take better care of yourself, feel better and get the right care

Influenza Vaccination

- [Flu and You](#)
Influenza education and prevention
- [Flu Vaccination Information for Consumers](#)

Injection Safety

[California One and Only Campaign](#)

HAI Prevention Library

- [Updated Links to HAI definitions, prevention information and mandatory Public Reporting](#)
- [Infographic: What can you do as a patient or loved one of a patient?](#)
- [Infographic: Infection Prevention and You](#)
What you can do to prevent HAIs
- [Antibiotics: When do you really need them?](#)
The problem of antimicrobial resistance
- [Speak Up: Five Things You Can Do to Prevent Infections](#)
- [Basics on Handwashing](#)
A how-to on handwashing
- [Basics on Hand Sanitizing](#)
A how-to on hand sanitizing
- [My Questions For My Healthcare Visit](#)
Use this card to list the questions you want to ask for your healthcare visit

Frequently Asked Questions (FAQs) About HAIs

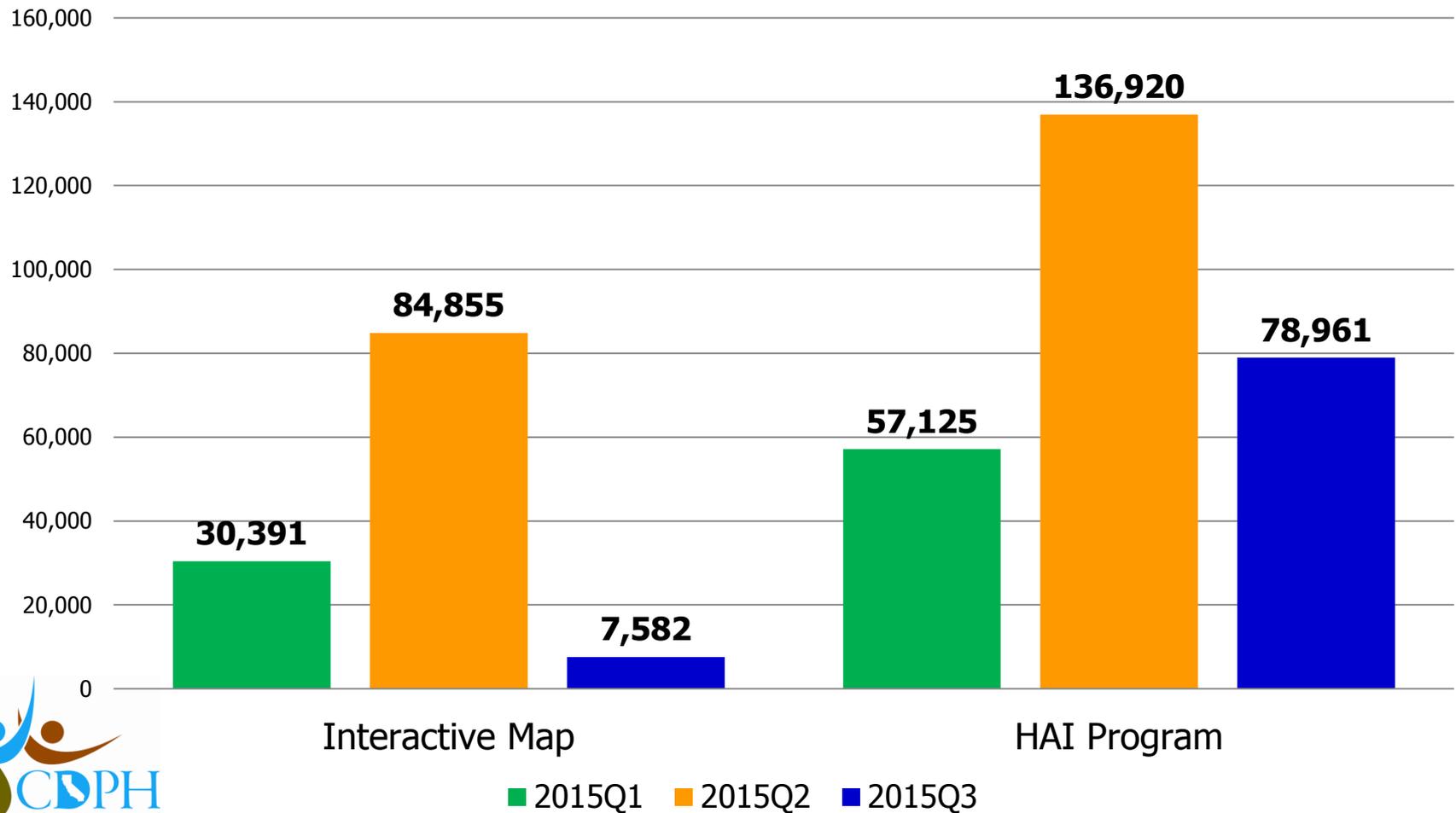
- [Clostridium difficile infection \(CDI, C. difficile, C. diff\)](#)
- [Central line-associated bloodstream infection \(CLABSI\)](#)
- [Methicillin-resistant Staphylococcus aureus infection \(MRSA\)](#)
- [Surgical Site infection \(SSI\)](#)

How to File a Complaint About a Healthcare Facility

- [File a Complaint Against a Healthcare Facility through the Licensing and Certification Unit](#)

Visits by Quarters

January to July 2015

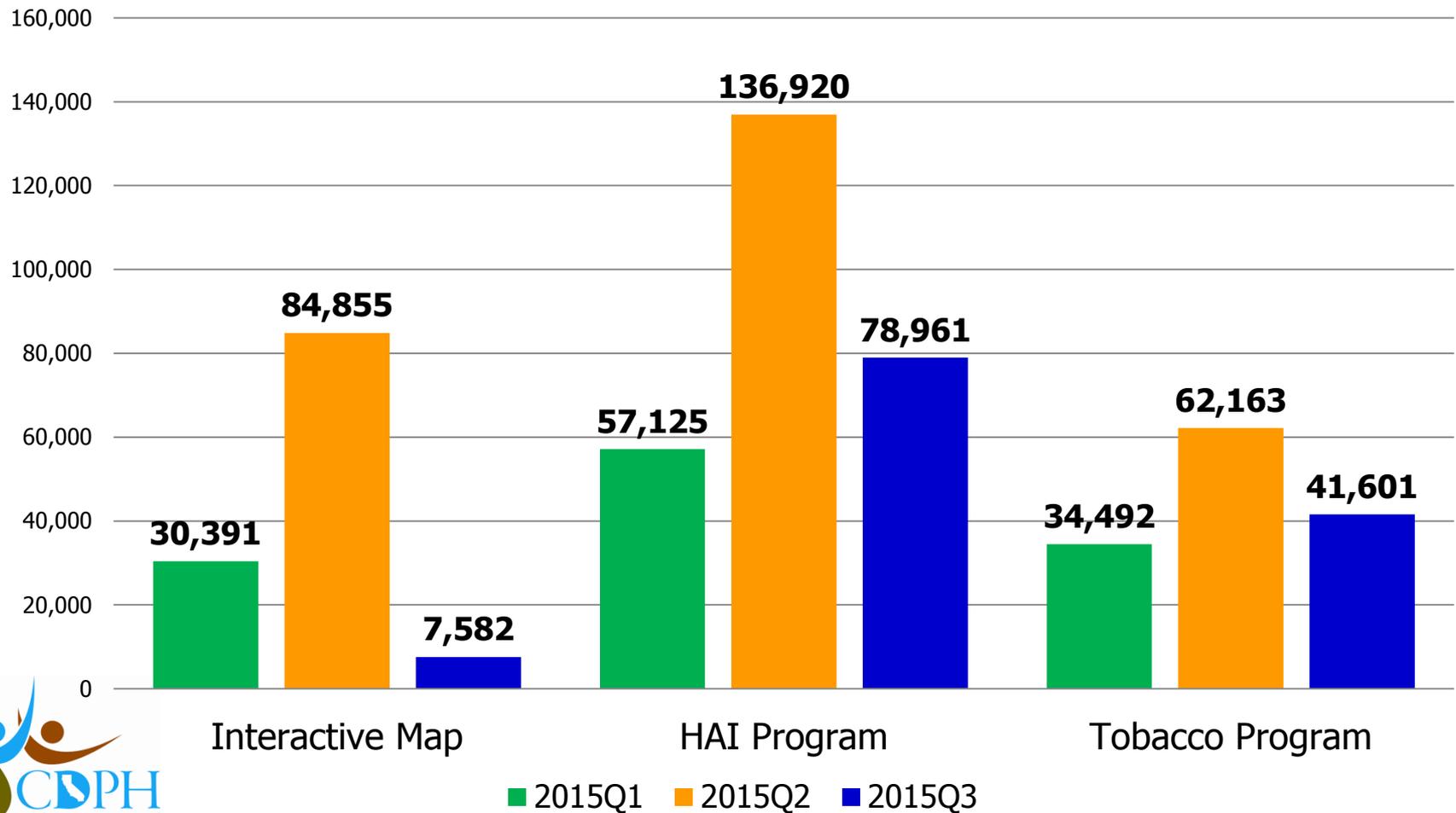


2015 Top Ten HAI Page Views

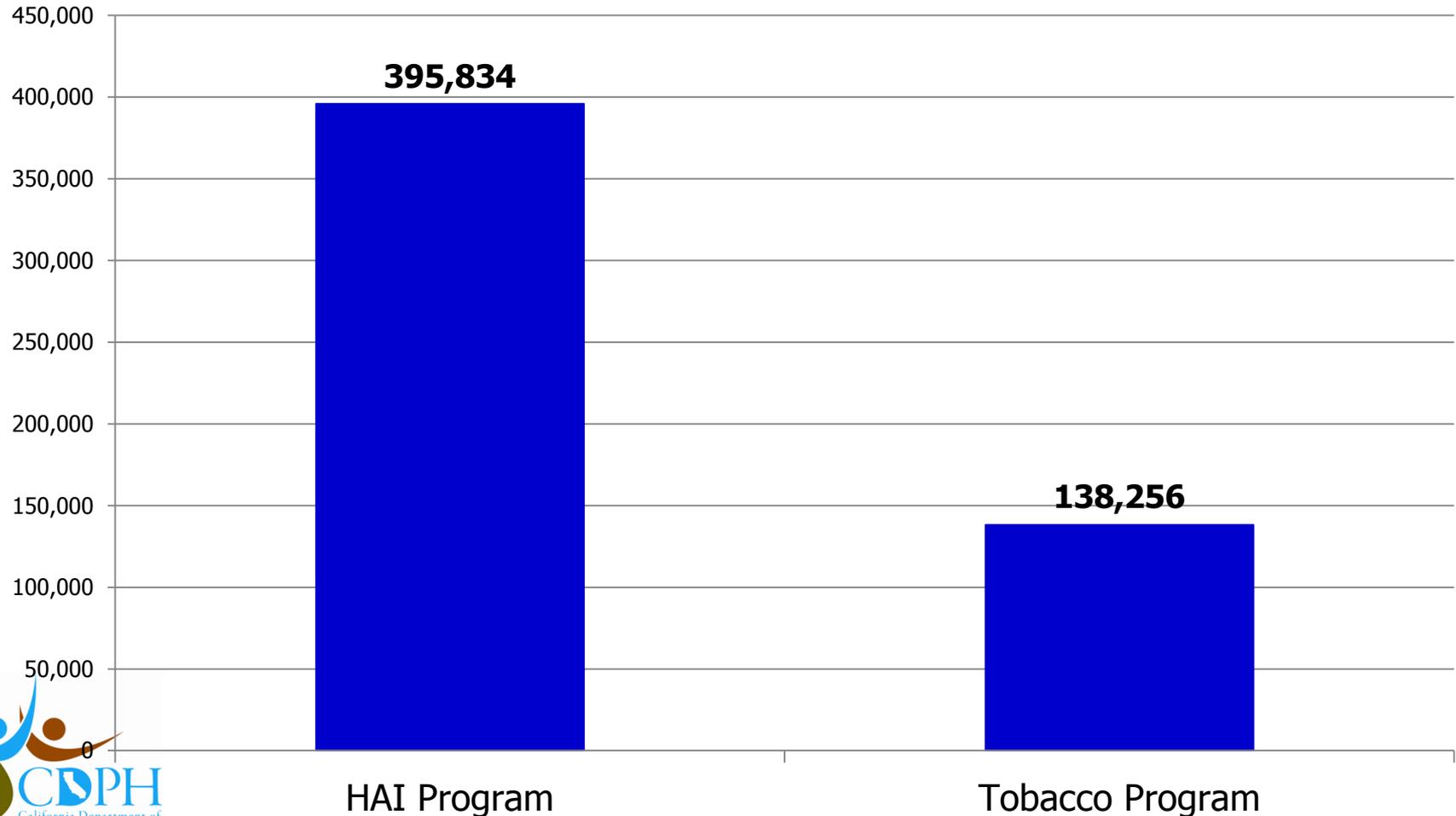
	Pages	Average Time Viewed (Seconds)
1	Healthcare-Associated Infections - Main Page	73
2	California Antimicrobial Stewardship Program Initiative	180
3	HAI Information and Current Reports	124
4	Cleaning, Disinfection and Sterilization (<i>Basics of IP course</i>)	190
5	Who is at Risk of Getting a MRSA Infection?	84
6	What is a CLABSI?	97
7	Vancomycin-resistant Enterococci (VRE)	89
8	Carbapenem-Resistant Enterobacteriaceae (CRE)	137
9	MRSA: Methicillin-Resistant Staphylococcus aureus	97
10	Clostridium Difficile Infection (CDI)	79

Visits by Quarters

January to July 2015



Total Views – By Programs January to July 2015



California Injection Safety Program

California

News & Events

» Injection Safety is Everyone's Responsibility



The Centers for Disease Control and Prevention (CDC) estimate that in recent years, unsafe injection practices have affected more than 150,000 patients in the United States, including 11,500 in California. CDC recommends that healthcare providers NEVER administer medications from the same syringe to more than one patient, even if the needle is changed. It is your right to know that your provider will use a new syringe and new needle every time.

The California One & Only Campaign encourages healthcare organizations and individuals to promote public awareness of safe injection practices. **To become a member of the California One & Only campaign, [click here](#)**

» Hepatitis B and C Outbreaks in California



CDC summarized 44 healthcare-associated outbreaks of hepatitis B and C in non-hospital settings from 2008-2014. Six of the outbreaks occurred in California; 2700 people were notified of possible exposure and 27 patients were found to be infected. The outbreaks occurred in two skilled nursing facilities, two assisted living facilities, a pain management clinic, and an outpatient dialysis clinic.

Unsafe injection practices that resulted in these infections included reusing syringes, contaminated multi-dose medication vials, and single-dose vials used for more than one patient.

USE AN INJECTION SAFETY CHECKLIST



It is every patient's right to receive a safe injection. Are healthcare workers always following safe

injection practices at YOUR facility? Safe injection practices are a set of measures that define how to give injections in a safe manner for patients and healthcare providers. The California One & Only Campaign encourages healthcare workers to review and use the Injection Safety Checklist to assess their practices. The checklist, developed by CDC and the Safe Injection Practices Coalition, includes nine observations to help healthcare workers ensure they are adhering to safe injection practices during the care of patients. To download and share the Injection Safety Checklist, [click here](#)

WHEN IN DOUBT, THROW IT OUT!

HAI Program Public Outreach Plan

Four components:

1. Distribute HAI messages via social media
2. Perform analyses of HAI Program webpage user trends
3. Develop and disseminate educational videos
4. Launch and support an HAI Ambassadors Program

CDPH HAI Program Outbreaks Team



Co-Leads – Drs. Erin Epton and Janice Kim
plus Jon Rosenberg (retired annuitant)

CDPH HAI Program Role in Outbreak Investigations

- Subject matter experts in infection prevention and control
- Provide consultation and support to local public health agencies
- Coordinate with CDC content experts for up-to-date guidance and recommendations
- Coordinate outbreak investigations that cross local health jurisdiction boundaries
- Provide guidance and recommendations to CDPH L&C and other regulatory agencies

HAI Outbreak Investigations / Consultations

July 1, 2014 – June 30, 2015

Total investigations / consultations: 50

By pathogen:	
<i>Legionella</i> species	14
<i>Klebsiella</i> species	7
Hepatitis B Virus	5
<i>C. difficile</i> infection	4
<i>S. aureus</i>	4
Hepatitis C Virus	3
Other	13

By facility type:	
Acute Care Hospitals	20
NICU	5
Skilled Nursing Facilities	15
Dialysis Centers	4
Ambulatory Surgery Centers	3
LTAC Hospitals	3
Other	5

Notable HAI Investigations in the Past Year

1. 09/2014: Evaluation of bloodstream infections in dialysis clinics in collaboration with CDC - throughout California
2. 11/2014: Transmission of HCV in Regenerative Medicine Clinic – Santa Barbara County
3. 01/2015: Transmission of CRE via endoscopy procedures – Los Angeles County
4. 03/2015: Transmission of *S. aureus* in NICU – Long Beach, CA
5. 05/2015: Transmission of CRE in 13 patients at SNF – Alameda County

Summary

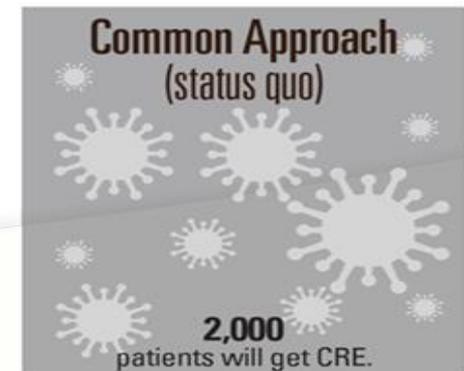
- The CDPH HAI Program is committed to reducing HAI in California
 - Using Data for Action to prioritize and focus on hospitals with continued high HAI incidence
 - A regional approach is being modeled for AR; CDI prevention is a high priority
 - Ensuring preparedness for Ebola and other emerging infectious diseases has expanded our outreach
 - External input is sought from the HAI Advisory Committee, health care providers, regulators, and local public health to enhance our efforts

Defining the Role of Public Health in HAI Prevention

- If not public health, then who?

More patients get infections when facilities do not work together.

(Example: 5 years after CRE enters 10 facilities in an area sharing patients)



CRE will impact **12%** of patients.



CRE will impact **8%** of patients.



SOURCE: CDC Vital Signs, August 2015.