HAI Advisory Committee Conference Call Meeting
Friday, December 16, 2016
11:00 AM – 12:00 Noon

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Summary of "Healthcare-Associated Infections in California Hospitals Annual Report, 2015" and "Influenza Vaccination among Health Care Personnel in California Hospitals, 2015-2016" published on December 16, 2017

- California general acute care hospitals must report to CDPH all cases of
  - central line-associated bloodstream infections (CLABSI),
  - methicillin-resistant *Staphylococcus aureus* (MRSA) bloodstream infections,
  - vancomycin-resistant *Enterococci* (VRE) bloodstream infections,
  - *Clostridium difficile* diarrheal infections (CDI),
  - surgical site infections (SSIs) following 29 procedures types, and
  - healthcare provider (HCP) influenza vaccination.

- CDPH must post hospital-reported infection incidence and HCP influenza vaccination data on a public website on an annual basis. *Health and Safety Code section 1288.55, 1288.8*

- Annual hospital-associated infection (HAI) data reported by hospitals via the web-based National Healthcare Safety Network (NHSN) have been published by CDPH since 2011. Annual HCP influenza vaccination reported by California hospitals using standardized methods have been published by CDPH since the 2010-2011 influenza season. Hospitals began reporting HCP vaccination data via NHSN for the 2012-2013 influenza season.

- Twenty nine (7%) hospitals failed to report complete HAI data for 2015 and six (2%) hospitals failed to report HCP influenza vaccination data for 2015-2016. CDPH cites for deficiencies hospitals that do not completely report all required HAI data.

HAI Report

- As in past years, CDPH will publish 2015 California hospital HAI data via a web page and an interactive map designed to help the public interpret hospital-specific findings. 2015 HAI data will also be available via the California Department of Health and Human Service's Open Data Portal.

- New in this 2015 report, CDPH calculated and reported a standardized infection ratio (SIR) when 0.2 infections were predicted. NHSN produces SIR only when 1.0 HAI is predicted. This change resulted in more California hospitals with SIRs in 2015 compared with previous years (Table 2). We were able to display these additional hospital HAI results on the 2015 web-based interactive map as "higher than predicted" or "the same as predicted" instead of displaying "too few data to calculate."

Table 2. Number of Additional California Hospitals with Comparison Data Included in the Healthcare-Associated Infections in California Hospitals Annual Report, 2015, Compared with 2014

Difference in Number of Hospitals with Calculated SIRs* in 2015 Compared with 2014	
CDI	**24**
CLABSI	**38**
MRSA BSI	**86**
SSI (SIR for at least one surgery type)	**33**

** Using 0.2 predicted HAI as the minimum precision criterion instead of 1.0*

- HAI continue to be a significant public health problem in California. In 2015, 392 acute care hospitals on 419 campuses reported 19,847 HAI to CDPH.

- CDPH recommends caution if comparing these 2015 HAI data with previous California hospital HAI annual reports. Multiple factors influenced the data and incidence calculations compared to prior years, including
    - CDPH completed a three-year data validation plan that helped hospitals identify infections and resulted in more HAI reported in 2015 than in previous years
    - CDPH also recommended and helped hospitals implement an improved method for identifying SSI, resulting in more SSI reported in 2015 than previous years.
    - NHSN implemented several data classification and reporting changes in 2015, which changed how certain infections were counted and how incidence was calculated. This resulted in higher overall CLABSI and MRSA BSI incidence and higher CDI incidence for some hospitals in 2015 compared with previous years.

  All of these changes will improve the quality of the HAI data going forward, allowing more accurate comparisons in 2016 and beyond. (Additional details about these changes are described in the report).

- Despite the impact of the surveillance and reporting methods changes, 2015 data show that overall California hospitals have demonstrated HAI prevention progress as compared with national baseline data, with the exception of CDI. Overall statewide CDI incidence decreased one percent in 2015 compared with 2014.

Table. Numbers of Healthcare-Associated Infections (HAI) Reported by California Hospitals and Comparisons of Statewide HAI Incidence to National Baselines, 2015

No. of HAI Reported by California Hospitals in 2015		2015 California HAI Data Compared with National Baselines*
CDI	10,771	↑ **8% since 2011**
CLABSI	2,894	↓ **39% since 2008**
MRSA BSI	751	↓ **10% since 2011**
VRE BSI	674	*No national baseline*
SSI – All Reportable Surgeries	4,757	↓ **34% since 2008**

**National baselines are based on surveillance data reported by U.S. hospitals to the Centers for Disease Control and Prevention's National Healthcare Safety Network (NHSN) to create national population standards for comparisons over time. California HAI data are compared to the NHSN national standard populations. The population standard used for CLABSI and SSI comparisons are from 2006-2008 national data. The population standard used for CDI and MRSA BSI comparisons are from 2011 national data.*

- This year's report highlights 56 hospitals that demonstrated significant HAI reductions from 2014 to 2015.

- Improvement is not occurring uniformly across all hospitals. CDPH is reaching out to 73 hospitals with high infection incidence for the same infection type for two or more consecutive years to help them implement HAI prevention action plans.

- Hospitals should review these data and implement infection prevention strategies specific to their local needs. Members of the public can take action by asking their medical providers what steps they are taking to ensure HAI prevention in their healthcare settings. Such discussions will reinforce expectations of patient safety and emphasize professional responsibility to protect patients.

HCP Influenza Vaccination Report

- New this year, CDPH will publish an interactive map showing hospital-specific HCP influenza vaccination data for 2015-2016. This is in addition to the web page that includes the summary report and data tables.

- Influenza vaccination rates continue to be higher among employees (85.4%) compared to non-employee HCP (66.1%).

- Results show hospitals have made incremental progress in HCP vaccination coverage, increasing by 21% for employees and 11% for non-employees HCP from the 2010-2011 to the 2015-2016 influenza season.

- For the 2015-2016 influenza season, the overall HCP vaccination rate was 82% for the 34 counties that required unvaccinated HCP to wear a surgical mask, and 79% for 20 counties that did not require a mask. We excluded two counties because they do not have reporting hospitals.

- In the 2015-2016 influenza season, 24% hospitals reached the Healthy People 2020 target of 90% for employee influenza vaccination, compared with 23% hospitals in 2014-2015.

- Hospitals that achieved the Healthy People 60% vaccination goal in 2010 should be increasing their annual vaccination percentage by at least 3% per year to achieve 90% vaccination by 2020. In 2015-2016, hospitals should have a vaccination percentage of at least 78% to demonstrate the incremental improvement necessary to reach the 90% goal by 2020.
    - Overall 65% of hospitals (253/389) reached 78% vaccination for HCP influenza vaccination in 2015-2016.

- Hospitals that did not reach 78% vaccination by 2016 should identify the obstacles in their HCP influenza vaccination program and determine what additional interventions are needed.

- Members of the public can take action by asking their HCPs if they have been vaccinated. Such discussions reinforce expectations of patient safety and emphasize professional responsibility to protect patients through annual influenza vaccination.

- Comments or questions can be sent to HAIProgram@cdph.ca.gov.