

## **KEY FINDINGS AND PUBLIC HEALTH ACTIONS**

### **Influenza Vaccination among Health Care Workers in California General Acute Care Hospitals for the 2012-13 Respiratory Season**

#### **Introduction**

Influenza is the eighth leading cause of death in the United States, according to the Centers for Disease Control and Prevention (CDC), with the majority of influenza-related illnesses and deaths occurring among vulnerable members of the population [1-2]. Health care personnel (HCP) are a source of transmission of influenza to coworkers and patients in hospitals [1-4]. Influenza vaccination is a simple, safe, and cost effective way to prevent transmission of influenza from HCP to patients [4]. Vaccination of HCP has been shown to reduce worker's illness, absenteeism, staff shortages, and healthcare costs [3]. A low rate of influenza vaccination is a serious problem, especially because influenza infections can be subclinical but still contagious, resulting in transmission by asymptomatic or minimally ill HCP.

Senate Bill (SB) 739 (Chapter 526, Statutes of 2006) included a mandate aimed to improve influenza vaccination acceptance by HCP by requiring California acute care hospitals to offer the vaccine free of charge to HCP and requiring HCP to sign a declination form if they choose not to be vaccinated [Health and Safety Code section 1288.7 (a)]. Hospitals must report to the California Department of Public Health (CDPH) on their implementation of these requirements, including the percentage of HCP (employees and non-employee personnel) vaccinated, and CDPH is required to make this information public on an annual basis [Health and Safety Code section 1288.8 (b)]. Hospitals collect and report data for all HCP physically working in the acute care hospitals for at least 30 days during influenza season, regardless of clinical responsibility or patient contact. Data are reported separately for employees, non-employee licensed independent practitioners, and adult students/trainees and volunteers.

This report, presents data for the 2012-2013 influenza season, for the period of October 1, 2012 through March 31, 2013. This is the fifth published report on healthcare personnel (HCP) influenza vaccination in California hospitals developed by CDPH and the first using data submitted by hospitals to the Centers for Disease Control and Prevention (CDC) National Healthcare Safety Network (NHSN). CDPH HAI Program implemented measures that increased reporting compliance and significantly improved the completeness and quality of the reported data. An NHSN online survey of influenza vaccination policies and practices, completed by 94% of California hospitals, found that most hospitals are using strategies recommended by the Healthcare Infection Control Practice Advisory Committee on Immunization Practices (ACIP) to promote influenza vaccination among HCP.

A real-time quality assurance process was implemented by CDPH to track and correct errors and omissions on hospital surveillance report forms, which led to an increase in reporting compliance. Vaccination were calculated for each personnel category (Table 1) by hospital. The proportion of hospitals with an overall HCP vaccination percentage that met the Healthy People 2020 target of 90% increased to 13% for 2012-13 from 7.6% for 2011-12 (Table 3). New in this report are overall hospital specific vaccination rates with side-by-side comparisons to vaccination rates reported in 2011-2012 (Table 4). Also included is a new summary analysis of an online survey on activities used by California hospitals to promote influenza vaccination (Table 2).

While most hospitals reported using recommended strategies to promote influenza vaccination among HCP, overall influenza vaccination coverage among HCP in California hospitals remains relatively low at 74% for employees, compared with 67.8% last year, and 59.1% for non-employees compared with

62.2% last year (Table 5). Current statewide reporting mandates alone have not demonstrated sufficient progress toward achieving recommended influenza vaccination coverage among HCP in California general acute care hospitals. For the 2012-2013 influenza season, 12 more local public health agencies required hospitals within their jurisdictions to implement mandatory masking policies for HCP who decline vaccination. Such additional mandates by local governments or by hospital policy may be necessary to increase HCP acceptance of annual influenza vaccination and protect California's most vulnerable patients.

## Key Findings

- Reported surveillance data allowed the CDPH HAI Program to compare the influenza vaccination coverage among HCP by hospital in California general acute care hospitals for the 2012-2013 respiratory season (Table 1).
- The influenza vaccination surveillance reporting compliance by hospitals for this 2012-13 influenza season increased to 100% from 99.5% in 2011-12.
- The mean hospital-specific employee vaccination percentage was 74% for 2012-13 compared to 67.8% in 2011-12, a 6.2 % increase. This is a higher one-year vaccination rate increase than the 3.5 percent increase observed from 2010-11 to 2011-12 (Table 5).
- Hospital-specific vaccination rates increased 9.7% for employees and 3.9% for non-employees since the HCP influenza vaccination report, 2010-11 (Table 5).
- 273 (71%) of California hospitals achieved the 2010 Healthy People goal of 60% vaccination of employees, compared to 203 (55%) reported last year. Fifty (13.0 %) hospitals reached the Healthy People 2020 target of 90% for employee influenza vaccination, compared to 28 (7.6%) reported last year (Table 3).
- More hospitals achieved the Healthy People 2020 target of 90% vaccination for employees (n=82) than for non-employees (n=68).

Hospital participation in a comprehensive online survey of influenza vaccination policies and practices decreased to 362 (94%) for 2012-13 from 382 (99%) for 2011-12 since participation in the online survey was labeled "optional" by NHSN.

Results are as follows (Table 2):

- 79% of hospitals required HCP to provide documentation for off-site vaccination status.
- Over 54% of respondent hospitals required HCP who received off-site influenza vaccination to provide a receipt and over 44% required the signature of HCP on a standard facility form attesting to vaccination status.
- Over 99% of respondent hospitals included full time employees in the annual influenza vaccination campaign. Only 33% of respondent hospitals included other personnel groups in the annual influenza vaccination campaign.
- 90.3% of respondent hospitals offered influenza vaccination during all work shifts, including nights and weekends. 90.9% offered vaccination in conferences, meetings, cafeteria, and 79.3% via mobile carts.

- To promote HCP influenza vaccination, 85.4% of respondent hospitals sent reminder mail or emails, and over 93% of respondents provided education on the benefits and risks of vaccination.
- Survey results showed that most hospitals implemented recommended strategies for improving influenza vaccination among HCP, such as comprehensive influenza vaccination campaigns, multiple vaccination opportunities during all shifts, education on influenza and vaccination, and inclusion of all personnel in vaccination promotion strategies and vaccination opportunities.
- 85.4% of respondent hospitals used mail, email, and or paper reminders to promote/enhance healthcare personnel influenza vaccination.
- 88.1% of respondent hospitals required a signed computer form from healthcare personnel who refuse influenza vaccination.

## Recommendations

In follow-up to this report, CDPH will:

- Continue tracking and reporting compliance with influenza vaccination data collection and the methods and systems used to document the vaccination status of all healthcare personnel.
- For 2013-2014 influenza season, the HCP vaccination requirements have changed. Data will be collected for HCP physically working in the acute care hospitals for at least one working day between October 1 through March 31 of an influenza season, regardless of clinical responsibility or patient contact. This includes HCP who joined after October 1<sup>st</sup> or before March 31<sup>st</sup> or who were at extended leave during the part of the reporting period. Noting that working for any number of hours a day counts as a working day.

CDPH recommends all hospitals should:

- Take reasonable and timely actions to review the vaccination coverage data reported by the hospital for 2012-13, evaluate the current influenza vaccination program and policies, and develop an action plan to significantly improve influenza vaccination coverage of HCP to achieve the Healthy People 2020 target of 90% vaccination.
- Ensure that influenza vaccination status is a requirement of all contracts with physician groups, registry organizations, fellowships, and student training programs.
- Implement robust data collection and management systems to document the vaccination status of all HCP.
- Monitor and investigate all cases of suspected healthcare associated influenza
- Promote educational programs on influenza prevention and the importance of influenza vaccination for HCP, their friends and families, and patients.

The public should:

- Discuss the risk of influenza for themselves and their families with their HCP. Ask about the prevention strategies used by the HCP or healthcare facility to keep patients safe from influenza (e.g. hand hygiene, vaccination programs, staff education). Such discussions can reinforce the patient safety aspect of vaccination and can emphasize professional responsibility to protect patients through vaccination.

## References:

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