Influenza Vaccination Coverage among Healthcare Workers during the 2013-14 Influenza Season in Rhode Island

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Since 1984, the Centers for Disease Control and Prevention’s (CDC) Advisory Committee on Immunization Practices (ACIP) has recommended annual seasonal influenza vaccination for healthcare workers (HCWs). Vaccinating HCWs against influenza can reduce influenza illness, transmission of influenza to patients, and influenza-related morbidity and mortality among patients in healthcare settings. Despite the documented benefits and ACIP’s long-standing recommendations, the overall influenza vaccination rate for HCWs has remained far below the Healthy People 2020 target of 90% nationally.

In October 2012, with the input of the Rhode Island Flu Task Force, the Rhode Island Department of Health (HEALTH) amended HCW immunization regulations [R23-17-HCW] to increase influenza vaccination coverage among HCWs. The amended regulations require all HCWs in healthcare facilities either to receive influenza vaccination, or provide proof of a medical exemption or a declination statement to their healthcare facilities by December 15th of each year. Unvaccinated HCWs must wear a surgical face mask during direct, face-to-face contact with patients when influenza is declared widespread. Healthcare facilities are required to report their HCW influenza vaccination status data to HEALTH at the end of each influenza season.

This article presents influenza vaccination coverage among Rhode Island HCWs and healthcare facilities’ data reporting for the 2013–2014 influenza season.

METHODS

The aggregate counts of HCW influenza vaccination status data reported by healthcare facilities to HEALTH were used to estimate vaccination coverage. For the 2013-2014 influenza season, all healthcare facilities subject to the HCW regulations were required to report HCW vaccination status during April 1–May 15, 2014 through HEALTH’s web-based reporting system. A healthcare facility is defined as any institutional health service provider or facility that is licensed by HEALTH, including but not limited to, hospitals, nursing homes, home care providers, home nursing care providers, kidney disease treatment centers, and hospice providers.

The elements of data reporting include the number of HCWs who: 1) were eligible for vaccination [total number of HCWs], 2) received vaccination, 3) refused influenza vaccine for medical reasons, 4) refused influenza vaccine for reasons other than medical contraindications, and 5) had an unknown vaccination status. The number of HCWs reported in 2-5 should be mutually exclusive and the sum should be equal to the total number of HCWs. Each facility is required to report the vaccination status for the following HCW categories: employees [staff on the facility’s payroll], non-employee licensed independent practitioners [LIP], and non-employee adult students/trainees/volunteers [STV]. HCW includes both full-time and part-time persons who have worked at the facility for at least one working day during October 1, 2013–March 31, 2014. If a HCW works in two or more facilities, each facility should include the HCW in their counts. The total number of Rhode Island facilities subject to the HCW regulations for the 2013–2014 influenza season was 302 facilities.

RESULTS

Overall Influenza Vaccination Reporting and Coverage Rates

Of the 302 facilities subject to the HCW regulations, 268 facilities (88.7%) reported their 2013-2014 HCW influenza vaccination data to HEALTH, which was a substantial increase from 59.0% for the 2012–2013 and 26.9% for the 2011–2012 influenza season. While the proportion of influenza vaccination coverage for employee HCWs increased substantially from 69.7% in the 2011–2012 season to 87.2% in the 2012–2013 season, it increased only marginally from 87.2% in the 2012–2013 season to 88.1% in the 2013–2014 season. (Figure 1)

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Figure 1. Influenza Vaccination Reporting and Coverage Rates, Rhode Island, 2011–2012, 2012–2013, and 2013–2014 Influenza Seasons
Influenza Vaccination Status by HCW Type

Figure 2 presents the influenza vaccination status by HCW type in the 2012–2013 and the 2013-2014 influenza seasons. During the 2013–2014 influenza season, the proportion of HCWs receiving influenza vaccination was slightly higher among employee HCWs than non-employee HCWs. Eighty-eight percent (88.1%) of employee HCWs were vaccinated, compared to 86.1% of non-employee LIPs, and 85.9% of non-employee STVs. The proportion of declination was also higher among employee HCWs (9.0%) than non-employee LIPs (2.7%) or non-employee STVs (3.1%). However, the proportion of unknown status was higher for non-employee HCWs (10.9% for non-employee LIPs and 10.7% for non-employee STVs) than employee HCWs (2.3%). The proportion of medical exemption was less than 1% for all three categories.

Between the 2012–2013 influenza season and the 2013–2014 influenza season, all categories of vaccination status for employee HCWs were very similar: vaccinated (87.2% in the 2012–2013 season vs. 88.1% in the 2013-2014 season), medical exemption (0.7% vs. 0.6%), declination (9.9% vs. 9.0%), and unknown status (2.1% vs. 2.3%).

Compared to the 2012-2013 influenza season, the proportion of unknown status in the 2013-2014 influenza season decreased substantially for non-employee HCWs, especially for non-employee STVs. Forty percent (40.0%) of non-employee STVs had unknown vaccination status in the 2012–2013 influenza season, compared to 10.7% in the 2013–2014 influenza season.

Influenza Vaccination Reporting and Coverage Rates by Facility Type

Figure 3 shows that all nursing facilities and hospitals in Rhode Island reported their HCW's vaccination status to HEALTH for the 2013-2014 influenza season. Ninety-three percent (93%) of the organized ambulatory care facilities, 88% of home care providers, and 84% of home nursing care providers reported the data to HEALTH. The influenza vaccination rate among employee HCWs was highest in nursing facilities (90.4%), followed by hospitals and organized ambulatory care facilities (both 89.7%), home nursing care providers (81.2%), and home care providers (65.9%).

DISCUSSION

Prior to 2012, healthcare facilities were required to offer influenza vaccine to HCWs at no cost, and to report rates of vaccination and declination to HEALTH. In October 2012, Rhode Island became the first state in the nation to mandate statewide annual influenza vaccination for HCWs beginning in the 2012-2013 influenza season. Data collected from the first season demonstrated that moving from a passive offering to a mandate was effective in increasing the influenza vaccination coverage rates among HCWs during the 2012–2013 influenza season.

Data collected from the 2013-2014 showed additional improvements in reporting and vaccination coverage rates. First, overall rates of reporting from the individual healthcare facilities on their HCWs influenza vaccination status increased substantially from 59% in the 2012-2013 influenza season to 89% in the 2013-2014 influenza season. Second, although the vaccination rate for employee HCWs remained similar for the 2012–2013 and the 2013-2014 seasons (87.2% vs. 88.1% respectively), vaccination rates for non-employee
HCWs (LIPs and STVs) increased substantially, especially for STVs (56.1% vs. 85.9%). The increase in the vaccination rates among non-employee HCWs could be attributed to the decrease in the amount of unknown vaccination status in these groups, which may imply quality improvements in the data collection for non-employee HCWs in the health-care facilities. Third, the larger proportion of unknown vaccination status among non-employee HCWs compared to employee HCWs was mainly due to one free clinic with a large number of non-employee HCWs (Rhode Island Free Clinic, Inc.), where the vaccination status of all non-employee HCWs working in this facility during the 2013-2014 influenza season (140 LIPs and 574 STVs) were reported as unknown. If we exclude this one clinic, the unknown status rates for non-employee HCWs would have been much lower.

HEALTH continues to convene Rhode Island’s Flu Task Force, which consists of key immunization stakeholders in the community, to identify and develop strategies to increase influenza vaccination coverage and address barriers to vaccination. Individual facility’s data on HCW influenza vaccination are posted at www.health.ri.gov/publications/datareports/20132014HealthcareWorkerVaccinationRates.pdf.

References

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Disclosures
The authors and/or their significant others have no financial interests to disclose.

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