

Healthcare Personnel Influenza Vaccination in New Hampshire during the 2014-15 Influenza Season

Introduction

Influenza and pneumonia combined are a leading cause of death in the United States and serious illness and deaths occur most frequent among those 65 years or older, two years or younger, or those with medical conditions that may increase complications. Healthcare personnel (HCP) can become infected with influenza through contact with infected patients and can transmit influenza to patients and other HCP. Despite documented benefits of HCP influenza vaccination on patient outcomes and HCP absenteeism, vaccination coverage among HCP remains below the national Health People 2020 target of 90%¹. Because HCP provide care to patients at high risk for complications of influenza, they should be offered influenza vaccine each year. Currently there are no regulations requiring vaccination in New Hampshire (NH); however, some healthcare facilities have implemented policies requiring HCP vaccination. Monitoring of vaccination rates in certain NH HCP has been required by law since 2008, though the availability of historical data varies by facility type.

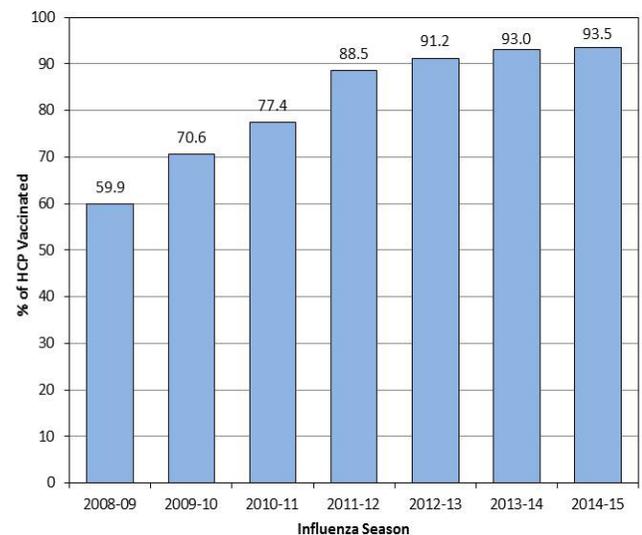
Hospital data

Hospital Influenza Vaccination Rates

Vaccination rates by hospital ranged from 69.6%- 100% during the 2014-15 influenza season, and the overall vaccination rate was 93.5%. Nine hospitals had vaccination rates similar to the overall vaccination rate, 11 hospitals reported vaccination rates that were significantly higher than the overall

vaccination rate, and 14 hospitals reported vaccination rates that were significantly lower than the overall vaccination rate.

Figure 1. Statewide influenza vaccination rates for hospital HCP by influenza season



Note: Each season spans October 1-March 31 of the following calendar year, with the exception of 2008-09, which collected data for October 1st through April 30th

Overall, seven hospitals increased HCP influenza vaccination in 2014-15 compared to 2013-14, 19 hospitals had similar vaccination rates, and seven hospitals decreased influenza vaccination rates.

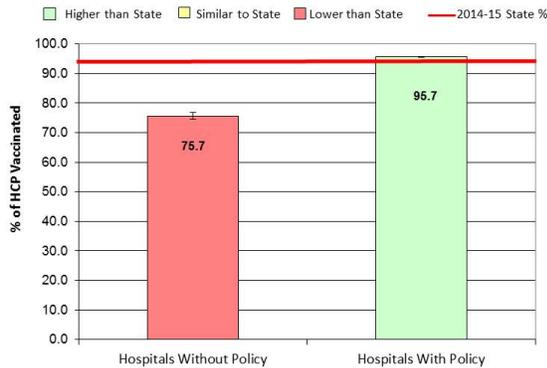
Influenza Vaccination Policies for HCP at Hospitals

During the 2014-15 influenza season, 29 (85%) of 34 hospitals had a HCP vaccination policy in place, two (6%) did not have one in place but were considering one, and three (9%) did not have one in place and were not considering one.

¹ 77.3% during the 2014-15 influenza season.

Hospitals with vaccination policies had significantly higher rates of influenza vaccination as a whole (96.7%) than hospitals without policies (75.7%).

Figure 2. Influenza vaccination rates for hospitals with and without vaccination policies, 2014-15 influenza season

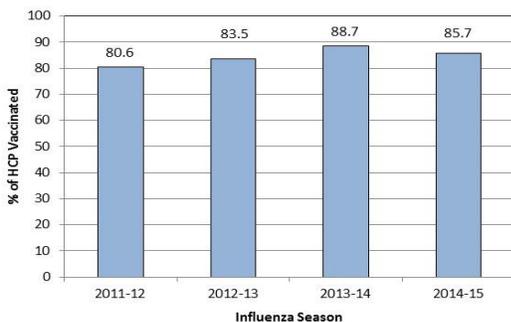


Ambulatory Surgery Center Data

Ambulatory Surgery Center (ASC) Influenza Vaccination Rates

Vaccination rates by ASC ranged from 50.0%-100.0%, and the overall vaccination rate was 85.7%. Sixteen ASCs had vaccination rates similar to the overall vaccination rate, nine ASCs reported vaccination rates that were significantly higher than the overall vaccination rate, and five ASCs reported vaccination rates that were significantly lower than the overall vaccination rate.

Figure 3. Statewide influenza vaccination rates for ASC HCP by influenza season



Note: Influenza seasons span October 1st to March 31st of the following calendar year.

There was a slight, insignificant, decrease in statewide ASC HCP vaccination from 2013-14 to 2014-15. All 27 ASCs had similar HCP influenza vaccination rates in 2013-14 when compared to 2014-15.

Influenza Vaccination Policies for HCP at ASCs

During the 2014-15 influenza season, 13 (43%) of 30 ASCs had a HCP vaccination policy in place, four (13%) did not have one in place but were considering one, and 13 (43%) did not have one in place and were not considering one. ASCs with vaccination policies had significantly higher rates of influenza vaccination as a whole (96.9%) than ASCs without policies (77.1%).

Figure 4. Influenza vaccination rates for ASCs with and without vaccination policies, 2014-15 influenza season

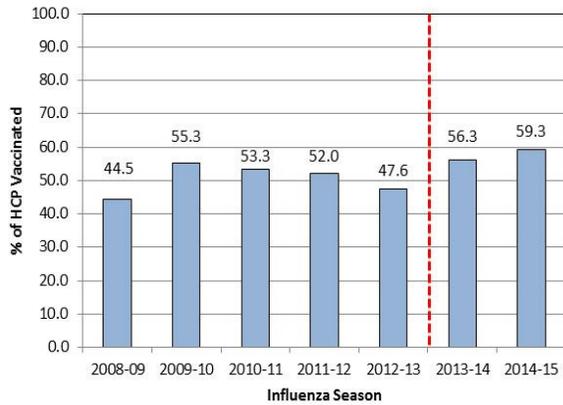


Assisted Living, Adult Day Care, and Adult Residential Care Facility (ALF) Data

ALF Influenza Vaccination Rates

Vaccination rates by ALF ranged from 0%-100% during the 2014-15 influenza season, and the overall vaccination rate was 59.3%. Eighty-eight ALFs had vaccination rates similar to the overall vaccination rate, 41 ALFs reported vaccination rates that were significantly higher than the overall vaccination rate, and 40 ALFs reported vaccination rates that were significantly lower than the overall vaccination rate.

Figure 5. Statewide influenza vaccination rates for ALF HCP by influenza season



Note: Each season spans October 1-March 31 of the following calendar year, except in 2008-09, when it ended on April 30. The red dotted line represents a change in reporting methods between seasons that could impact ability to compare data across years.

The overall statewide ALF HCP vaccination rate increased significantly from 2013-14 to 2014-15; rates have varied among ALFs over the seven seasons for which data was collected, with Figure 5 showing both statistically significant increases and decreases between influenza seasons. Overall, 11 ALFs increased HCP influenza vaccination in 2014-15 compared to 2013-14, 130 ALFs had similar vaccination rates, and seven decreased influenza vaccination rates. Twenty-one ALF could not be compared with the previous season.

Influenza Vaccination Policies for HCP at ALFs

During the 2014-15 influenza season, 40 (24%) of 169 respondent ALFs had a HCP vaccination policy in place, 46 (27%) did not have one in place but were considering one, and 83 (49%) did not have one in place and were not considering one. ALFs with vaccination policies had significantly higher rates of influenza vaccination as a whole (87.7%) than ALFs without policies (49.3%).

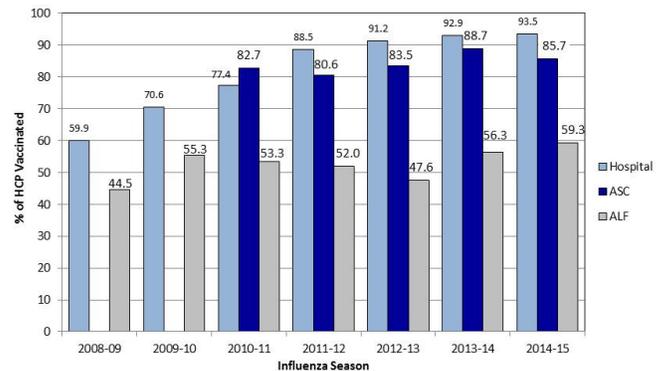
Figure 6. Influenza vaccination rates for ALFs with and without vaccination policies, 2014-15 influenza season



Comparison Data: Hospitals, ASCs, and ALFs

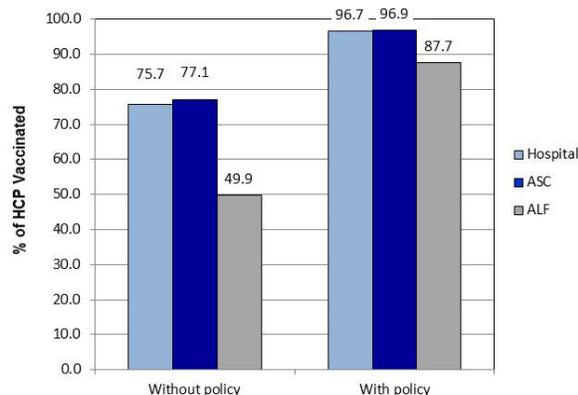
Hospitals had the highest HCP influenza vaccination rate during all influenza seasons except for 2010-11, when ASCs had the highest vaccination rate (82.7%). ALFs had the lowest vaccination rates during all seasons during which these data were collected.

Figure 7. HCP Influenza Vaccination Rates by Healthcare Facility Type, 2008-2015



Hospital data shows a gradual increase in HCP vaccination rates since 2008; each season represents a statistically significant increase from the season prior, while ASCs and ALFs observed more constant rates.

Figure 8. HCP Influenza Vaccination Rates for Hospitals, ASCs and ALFs with and without Vaccination Policies, 2014-15 Season



As demonstrated in Figure 8, facilities with policies had higher vaccination rates than facilities of the same type without policies, for all three facility types analyzed. However, ALFs with policies had statistically significantly lower rates than the other two facility types with policies.

Conclusions

Hospitals had the highest vaccination rates during 6 of the 7 seasons for which data were available, followed by ASCs; ALFs consistently had the lowest vaccination rates of all three facility types. Hospital rates have increased while ASC and ALF rates have remained more constant. However, the 2013-14 season was the first influenza season during which a statistically significant increase was seen for all three facility types. This pattern suggests that influences, such as public reporting of vaccination rates and facility policies promoting HCP vaccination, play an important role in HCP vaccination uptake. The analysis showing increased HCP vaccination rates in facilities with policies across all three facility types suggests that such policies are an effective way to increase rates. Finally, because ALF data are newly collected by the HAI Program, and the response rate of this facility type increased substantially from 2013-2015 with more active surveillance, future seasons of

data collection will allow for more accurate comparison. While HCP influenza vaccination rates have increased significantly in recent years, vaccination rates can be further improved through implementation of vaccination policies that educate HCP, promote vaccination, and ensure availability of vaccine. In particular, vaccination rates in ALFs are well below the Healthy People 2020 goal of 90%; enhanced vaccine availability and HCP education in this setting is recommended. It is important to continue to monitor HCP vaccination rates to ensure that rates continue to improve. For facility-specific data as well as details regarding data collection methods and analyses, please refer to the 2014 HAI reports for hospitals and ASCs and the 2014-15 influenza vaccination coverage report for ALF HCP.

References

1. http://www.cdc.gov/mmwr/preview/mmwrhtml/m6436a1.htm?s_cid=mm6436a1_w
2. <http://www.dhhs.nh.gov/dphs/cdcs/hai/documents/hai2014-asc.pdf>
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