

**STATE OF NEW HAMPSHIRE**

**ADULT DAY CARE, SUPPORTED RESIDENTIAL CARE, AND  
ASSISTED LIVING HEALTHCARE PERSONNEL INFLUENZA  
VACCINATION COVERAGE REPORT  
2014-15 INFLUENZA SEASON**

October 19, 2015

*New Hampshire Department of Health and Human Services  
Division of Public Health Services*

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**ABBREVIATIONS USED IN THIS DOCUMENT**

ALF	Adult day care, supported residential care, and assisted living facilities
CDC	U.S. Centers for Disease Control and Prevention
CMS	Centers for Medicare and Medicaid Services
CSTE	Council of State and Territorial Epidemiologists
DHHS	New Hampshire Department of Health and Human Services
DH	Dartmouth Hitchcock
HAI	Healthcare-associated infection
HCP	Healthcare personnel
HICPAC	Healthcare Infection Control Practices Advisory Committee
HHS	U.S. Department of Health and Human Services
LTCF	Long-term care facilities
NH	New Hampshire
NHIP	New Hampshire Immunization Program
TAW	Healthcare-Associated Infections Technical Advisory Workgroup

Note: In order to increase readability of tables and figures, adult day care, supported residential care, and assisted living facility names have been provided in an abbreviated format.

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The HAI Program would also like to thank the Infection Prevention, Quality, and Information Technology, and Occupational Health staff at New Hampshire healthcare facilities for collaborating to provide the data presented in this report. Finally, the HAI Program acknowledges the review, comments, input, and other program contributions provided by the members of the HAI Technical Advisory Workgroup as listed on page 10.

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## **EXECUTIVE SUMMARY**

Influenza and pneumonia combined are a leading cause of death in the United States and serious illness and deaths occur most frequently among those 65 years or older, two years or younger, and those with medical conditions that increase complications. Healthcare personnel (HCP) can become infected with the influenza virus through contact with infected patients and can transmit influenza to patients and other HCP. Because HCP provide care to patients at high risk for complications of influenza, they should be offered influenza vaccine each year. Vaccination coverage among hospital and ambulatory surgery center HCP has been monitored in New Hampshire for several years and the pooled State percentages for coverage among HCP at these facility types exceeds or approaches 90%. In accordance with RSA 151: 9-b, HCP vaccination is also monitored in adult day care, supported residential care, and assisted living facilities (ALF) since 2006. Compared with acute care facilities, these types of facilities have the lowest vaccination percentage (below 60%) for the previous six influenza seasons from 2008-09 to 2013-14. Likewise, nursing homes and assisted living facilities typically report more influenza-related clusters and outbreaks than other healthcare settings. Prior to this report, individual ALF data has not been available in a publicly accessible format. This report represents the first summary of HCP influenza vaccination coverage data in New Hampshire's ALF presented by individual facility.

### **Influenza Vaccination Percentages in ALF Healthcare Personnel**

One hundred sixty-nine ALF licensed during the 2014-15 influenza season were required to report HCP influenza vaccination data. These ALF reported vaccination percentages ranging from 0% to 100%, with a State mean 59.3%. Eighty-eight ALF had vaccination percentages similar to the overall State ALF vaccination percentage, 41 ALF reported vaccination percentages that were significantly higher than the overall State ALF vaccination percentage, and 40 ALF reported vaccination percentages that were significantly lower than the overall State ALF vaccination percentage. Overall, ALF with vaccination policies had significantly higher percentages of influenza vaccination as a whole (87.7%) than ALF without policies (49.3%).

This first report of NH ALF HAI data is an important part of continuing progress toward the goal of eliminating HAI, including healthcare-acquired influenza, in New Hampshire. This report provides influenza vaccination coverage data, which can be used by ALF in the State to identify areas for improvement as well as healthcare consumers to make informed healthcare decisions.

## I. INTRODUCTION

### A. Purpose

This report represents the first summary of healthcare personnel (HCP) influenza vaccination coverage data reported by adult day care, supported residential care, and assisted living facilities (abbreviated as ALF) in New Hampshire during the 2014-15 influenza season (October 1, 2014 through March 31, 2015). This report can be used by NH ALFsto identify areas for improvement as well as by healthcare consumers to make informed healthcare decisions.

### B. Audience

The intended audience may include, but is not limited to: HCP, infection control and prevention staff, occupational health, facility leadership and management, clinicians, and healthcare consumers.

### C. How to use this document

This document includes aggregate data reported by all licensed ALF in NH. The document consists of five sections:

- I) Introduction
- II) Surveillance methods
- III) Statewide and individual ALF influenza vaccination coverage of HCP
- IV) Conclusions
- V) Appendices
  - a. Technical notes
  - b. Influenza vaccination survey questions
  - c. Preventing HAI
  - d. Map of NH ALF
  - e. References

Please contact the NH Department of Health and Human Services (DHHS) Healthcare-Associated Infections (HAI) Program (603-271-4496) with any questions about the content or how to use this document.

### D. Background on Healthcare-Associated Influenza

Influenza and pneumonia combined are a leading cause of death in the United States<sup>i</sup> and serious illness and deaths occur most frequently among those 65 years or older, two years or younger, or those with medical conditions that increase complications.<sup>ii</sup> Healthcare personnel (HCP) can also become infected with the influenza virus through community contact or through contact with infected patients and then can transmit influenza to patients and other HCP. Despite documented benefits of HCP influenza vaccination on patient outcomes and HCP

absenteeism nationally, vaccination coverage among HCP remains low. In a CDC survey, influenza vaccination coverage in HCP nationally was 75.2% during the 2013-14 influenza season; below the HHS Healthy People 2020 goal of 90%.<sup>iii</sup> 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 influenza vaccination among HCP in New Hampshire, and HCP are free to decline vaccination for any reason. However, some healthcare facilities have policies requiring mandatory HCP vaccination. Vaccination percentages in hospital and ambulatory surgery center (ASC) HCP have been monitored in New Hampshire for several years. HCP vaccination percentages in ALF have been monitored since 2006, although these data have been collected more completely since the 2013-14 influenza season.

### **E. Healthcare-Associated Infections and Influenza in Assisted Living, Adult Day Care, and Supported Residential Care Facilities**

ALF fall under a category of long-term care facilities (LTCF) and are a growing and important healthcare setting. In recent decades, healthcare delivery has shifted from acute care hospitals to a variety of assisted, skilled nursing, and outpatient or ambulatory settings. With ALF playing such an important role in the current healthcare delivery system, it is critical that they follow guidelines and take measures to minimize the risk of HAI. The CDC, the Advisory Committee on Immunization Practices (ACIP) and the Healthcare Infection Control Practices Advisory Committee (HICPAC) all recommend that all U.S. HCP are vaccinated annually against influenza to protect patients and other HCP from healthcare- or occupationally-acquired influenza. Guidelines were developed by CDC and HICPAC following increased demand for recommendations on preventing and controlling pneumonia and other lower respiratory tract infections in healthcare settings, other than acute-care hospitals, following a shift of healthcare delivery to outpatient or long-term care.<sup>iv</sup>

In fall 2014, the HAI Program published an HCP influenza vaccination brief highlighting aggregate data from hospitals, ambulatory surgery centers (ASC), and ALF. Hospitals consistently had the highest HCP influenza vaccination percentage (with the exception of the 2010-11 season, when the ASC pooled percentage exceeded that of hospitals). ASC followed closely with vaccination coverage percentages ranging between 80-89%. ALF continuously had the lowest vaccination percentages (below 60%) for the previous six influenza seasons.<sup>v</sup> Likewise, nursing homes and ALF in NH typically report more influenza-related clusters and outbreaks than other healthcare settings, and experience with these clusters and outbreaks have depicted poor HCP influenza vaccination coverage.

Influenza outbreaks commonly occur in LTCF, yet vaccination rates among these HCP remain low. During each influenza season, approximately 20-40% of elderly patients contract the influenza virus while in LTCF worldwide. Complications in elderly or immunocompromised patients result in approximately 10% being hospitalized, and up to 55% of these hospitalizations will lead to death.<sup>vi</sup> Patients in these facilities are at increased risk for infection due to rapid spread of virus in congregate settings as well as lower immune responses.<sup>vi</sup> In three separate studies of LTCF, researchers found that increased influenza vaccination coverage among HCP

resulted in lower infection rates amongst patients. Rates of morbidity and mortality among facility residents were also reduced when HCP influenza vaccination coverage increased. One effective way of protecting this vulnerable patient population is the promotion of and education about influenza vaccination among HCP in these settings.<sup>vii</sup>

## **F. New Hampshire Healthcare-Associated Infections Program and Influenza Vaccination Reporting**

In 2005, RSA 151: 9-b was passed to require all licensed hospitals, adult day care, supported residential care, and assisted living facilities (ALF) to report patient and HCP influenza vaccination percentages. These data were originally reported to the NH Immunization Program (NHIP) starting in October 2006 for the 2006-07 influenza season.

During the 2006 legislative season, the New Hampshire Legislature passed a bill creating NH RSA 151:32-35, to require hospitals to identify, track, and report HAI and specific process measures, such as HCP vaccination, to DHHS. The passage of the 2006 bill did not include funding to carry out these activities, and therefore, mandatory reporting was not fully implemented until January 2009. The intent of the law is to provide data in a publicly accessible forum for facility comparison.

During the 2010 legislative season, the New Hampshire Legislature passed HB 1548 amending RSA 151:32-35 to require all licensed ambulatory surgical centers (ASC) to report HAI and process measures to DHHS.

To align and coordinate reporting under RSA 151:9-b and RSA 151:32-35, the responsibility to collect hospital, ASC, and ALF HCP influenza vaccination data was transitioned to the HAI Program beginning with the 2013-14 influenza season. DHHS notified the 169 ALF in NH that they would be required to report the mandated HCP influenza vaccination data to the HAI Program.

## **G. Overview of Healthcare-Associated Infections Prevention Efforts**

DHHS participates in statewide prevention activities through the NH Health Care Quality Assurance Commission (NHHCQAC), on which the Division of Public Health Services State Epidemiologist serves. Currently there are no specific prevention activities being coordinated directly by DHHS; however, DHHS remains active in various projects coordinated by the NHHCQAC and the Medicare Quality Innovation Network-Quality Improvement Organization (QIN-QIO). Major statewide initiatives through these organizations have included hand hygiene campaigns, patient safety checklists, and programs to prevent bloodstream infections, antimicrobial resistance, and *Clostridium difficile* infections. For additional information on these various efforts, the following websites may be helpful:

New Hampshire Health Care Quality Assurance Commission  
<http://www.healthynh.com/fhc-initiatives/nh-health-care-quality-assurance-commission.html>

Foundation for Healthy Communities Partnership for Patients

<http://www.healthynh.com/partnership-for-patients.html>

Medicare Quality Innovation Network-Quality Improvement Organization (QIN-QIO) for Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

[www.HealthCareForNewEngland.org](http://www.HealthCareForNewEngland.org)

In addition to supporting and engaging in prevention activities with patient safety groups, the HAI Program provides educational opportunities to healthcare facilities across the state in order to share best practices for infection prevention and ultimately reduce HAI. The program also routinely presents data, including HCP influenza vaccination coverage, to the New Hampshire Infection Control and Epidemiology Professionals (NHICEP) organization. There is ample opportunity for infection control and prevention professionals from different healthcare settings to share their experience and learn from each other on how to improve HCP influenza vaccination coverage across the continuum of care.

#### **H. Healthcare-Associated Infections Technical Advisory Workgroup**

In the spring of 2009, DHHS formed an HAI Technical Advisory Workgroup (TAW). The purpose of the TAW is to provide scientific and infection prevention expertise to the DHHS HAI Program. The TAW meets quarterly, and is not an oversight group, but instead a forum for stakeholder participation in decision-making around the HAI Program. The TAW is currently a 20-member group that includes representation from stakeholders across NH and includes representatives from various sizes and types of hospitals and ASC, infection control associations, a consumer advocate, the New Hampshire Hospital Association, the New Hampshire Healthcare Quality Assurance Commission, the New Hampshire Ambulatory Surgery Association, and the Northeast Health Care Quality Foundation (see page 10 for a list of TAW members during the 2014 reporting year). HAI reporting continuously evolves based on current recommendations and national trends, therefore the HAI TAW may expand to include representation from long-term care and/or ALF to account for this important healthcare setting.

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## II. SURVEILLANCE METHODS

### A. 2014 Healthcare-Associated Infections Reporting Requirements for NH Adult Day Care, Supported Residential Care, and Assisted Living Facilities

Reporting requirements are governed by RSA 151:9-b with authority given to DHHS to develop administrative rules to provide specific reporting instructions and methodology. ALF are required to report aggregate vaccination data for patients and HCP to DHHS.

### B. Selection of Reporting Requirements

RSA 151:9-b broadly requires reporting of HCP and patient immunization data, including influenza vaccination coverage. In order to generate influenza vaccination coverage percentages for ALF, reporting measures were selected in accordance with national recommendations for HAI surveillance in the context of public reporting.

In 2005, the CDC released a report titled “Guidance on Public Reporting of Healthcare-Associated Infections: Recommendations of the Healthcare Infection Control Practices Advisory Committee” (HICPAC).<sup>viii</sup> The group recommended selecting outcome measures for reporting based on the frequency, severity, and preventability of the outcomes and the likelihood that they can be detected and reported accurately. Applicable to ALF, the group recommended monitoring influenza vaccination of HCP.

In 2008, the Healthcare-Associated Infection Working Group of the Joint Public Policy Committee released “Essentials of Public Reporting of Healthcare-Associated Infections: A Tool Kit.”<sup>ix</sup> The Healthcare-Associated Infection Working Group of the Joint Public Policy Committee is a multi-organizational group represented by the Association for Professionals in Infection Control and Epidemiology, CDC, Council of State and Territorial Epidemiologists, and Society for Healthcare Epidemiology of America. The toolkit also recommends monitoring HCP influenza vaccination percentages.

Within the context of RSA 151:9-b, NH DHHS started collecting HCP influenza vaccination data in 2006. The methods for collecting these data changed as reporting was placed under HAI Program jurisdiction (see methods section on collecting these data). Also, reporting requirements may change for ALF in the future as we learn from public reporting, as HAI epidemiology changes, and as new surveillance methods and reporting technologies become available.

### C. Accuracy of Reported Healthcare Personnel Influenza Surveillance Data

There are several limitations to the reporting methods that may limit comparison of data across ALF and between years. The vaccination coverage data reported for the 2014-15 influenza season were not validated. However there are several processes used to ensure that these data are as accurate as possible. First, DHHS analyzed and reviewed all data reported by each

ALF. This review identified obvious reporting errors or internal inconsistencies that suggested errors. Second, DHHS provided preliminary reports to each ALF with the request to confirm accuracy and make corrections. An additional limitation to comparisons is that interpretation of the standardized CDC National Healthcare Network Safety (NHSN) HCP definitions may vary, particularly by ALF that have little to no exposure applying these definitions. For example, ALF may have several types of HCP (employees [paid], licensed independent practitioners [affiliated but not directly employed], students or trainees, other contract personnel) and these HCP may work off hours or on per diem basis, making it difficult to collect these data systematically. See Appendix 1 “Technical Notes” for more details.

#### **D. Influenza Vaccination Monitoring**

All ALF are required to report HCP vaccination data directly to DHHS via an online survey that is provided to facilities prior to the influenza season. All ALF received emails and phone calls to ensure those personnel completing the survey understood the reporting requirements and the HAI Program’s plan to publicly report the 2014-15 HCP influenza vaccination data by facility name.

Data were reported by 125 (74%) ALF on or before the deadline of April 30, 2015; the remaining 44 (26%) ALF were contacted to encourage reporting and reported at a later date. Submission of these data meets the requirement of the healthcare immunization law (RSA 151:9-b). See Appendix 2 to see a list of the 2014-15 questions regarding influenza vaccination.

ALF calculated HCP influenza vaccination percentages by dividing the total number of those HCP immunized against influenza for the 2014-15 influenza season by the total number of HCP that worked or volunteered in each facility for at least one working day between October 1, 2014 and March 31, 2015.

#### Limitations for influenza vaccination monitoring:

- The survey asks for the total number of HCP vaccinated. This may not reflect the number of HCP to whom the vaccine was offered. ALF may vary in the refusal rate for vaccination among HCP and the reasons for such refusal. Additionally, some HCP may not be eligible to receive the vaccine. The survey attempted to assess why unvaccinated HCP did not receive the vaccine, however, not all ALF were able to report this information.
- Because the survey did not include options for facilities to report unknown vaccination status, patients and HCP with unknown vaccination status were analyzed as though they were not vaccinated; resulting in a conservative estimate of vaccination status (e.g., lower than in reality).
- Vaccination status is not available by location where the vaccination was received (e.g., at the reporting facility or elsewhere).
- Data collection techniques at ALF may vary from year to year, potentially affecting comparison of data year to year. DHHS continues to work towards improving the validity

and utility of this measure in order to eliminate issues that pose problems for such comparison.

- Some ALF have very few HCP and may never be able to achieve a vaccination percentage significantly higher than the State pooled mean due to sparse data.
- This report combines data from three facility types organized as ALF, including adult day care, supported residential care, and assisted living facilities. Each facility type has unique factors that may impact reporting, and subsequently, influenza vaccination coverage percentages. In future years, these data may be compared to State percentages based on specific facility type.
- Annual influenza vaccination education for HCP, consistent surveillance, and reporting according to surveillance protocols is imperative to maintain high quality data. High turnover in this setting may diminish ability to perform these tasks and influence comparability of vaccination percentages.
- Because the methods of data collection differed considerably between the 2012-13 and 2013-14 influenza seasons, a comparison of percentages by individual facility is not possible.
- The percentage of facilities reporting these data increased substantially in the 2013-14 and 2014-15 influenza seasons in comparison to prior years; this increase is considered to be due to these data being newly collected by the HAI Program starting in 2013-14. The differences in response rates and surveillance methods between the two most recent seasons and all seasons prior means that comparison between these seasons should be interpreted with caution.
- With a continued approach of active surveillance, future seasons of data will allow for more accurate comparison and response rates and timeliness should increase.
- This is the first year individual ALF data was published in comparison to the State percentage. As ALF become more familiar with reporting methods and work to increase vaccine uptake, HCP vaccination data accuracy will improve and percentages will likely increase.

### III. STATEWIDE DATA

HAI data are presented throughout this report as HCP vaccination percentages. A confidence interval is calculated to determine whether the difference between individual facility and State percentages are statistically significant. If the difference is not statistically significant, the percentages are considered similar. See Technical Notes for additional information on percentages and confidence intervals.

This report provides comparisons with State data where appropriate. Comparisons are color coded consistently throughout. Yellow represents percentages that are similar to the State percentage, red represents percentages that are significantly lower than the State percentage, and green represents percentages that are significantly higher than the State percentage.

 higher than state     similar to state     lower than state

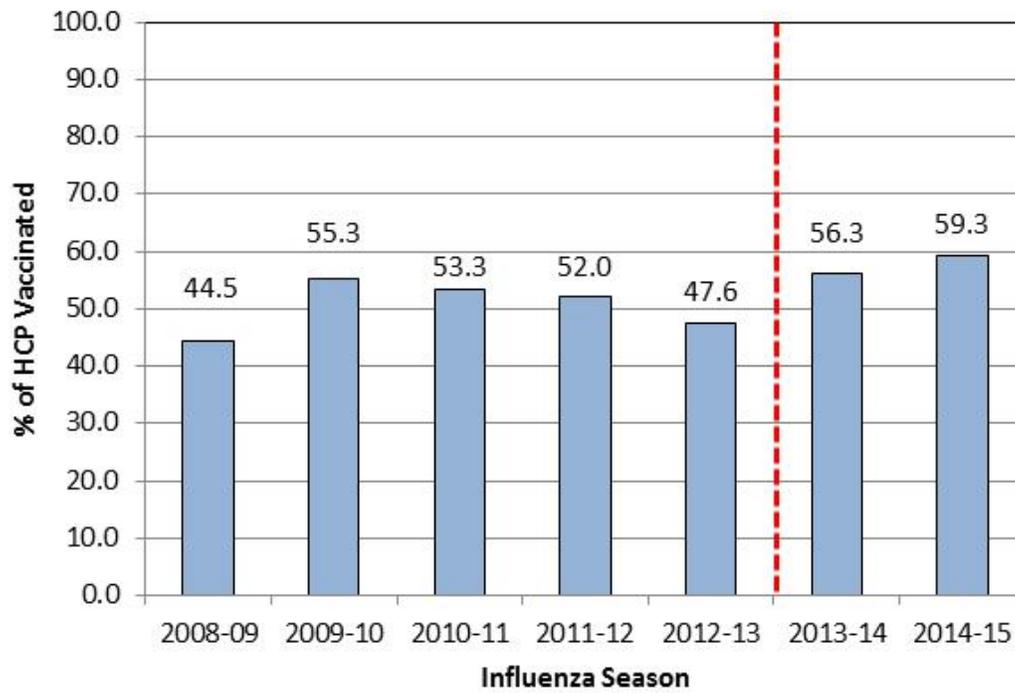
Statistical significance is affected by sample size. If a value is almost or barely significant, just a few additional observations can push significance one way or the other (i.e., not significant or significant).

#### Influenza Vaccination Percentages

Figure 1 shows vaccination percentages from 2008-09 to 2014-15 and shows that the State ALF percentage ranged from 44.5% to 59.3%. The dotted red line indicates the change in data collection methods between 2012-13 and 2013-14 (see Methods on page 11). With more active surveillance, future seasons of data collection will allow for more accurate comparison. Table 1 below shows the total number of HCP and the number of HCP vaccinated against seasonal influenza at each ALF during the 2014-15 influenza season. Vaccination coverage by ALF ranged from 0.0% to 100.0%, and the overall State percentage for the 2014-15 season was 59.3%. A confidence interval is provided to assess statistical significance in HCP vaccination between ALF and comparison to the statewide vaccination percentage.

The analyses presented in Table 1 and Figure 2 show that 88 ALF had vaccination percentages similar to the overall State vaccination percentage, 41 ALF reported vaccination percentages that were significantly higher than the overall State vaccination percentage, and 40 ALF reported vaccination percentages that were significantly lower than the overall State vaccination percentage.

**Figure 1. Statewide influenza vaccination percentages for ALF HCP by influenza season**



Note: Influenza season represents data for staff between October 1st and March 31st the following calendar Year.

**Table 1. Influenza vaccination percentages for HCP by ALF, 2014-15 influenza season (October 1, 2014–March 31, 2015)**

ALF	License #	City	HCP Vaccinated	Total HCP	% HCP Vaccinated	95% Confidence Interval	ALF % Compared to State %
All Generations Adult Day Program	03872	Nashua	5	7	71.4%	33.0 , 94.9	Similar
Applegate Gardens LLC. Residential Care	03380	Tuftonboro	5	6	83.3%	40.9 , 99.2	Similar
Arbors of Bedford	03922	Bedford	18	92	19.6%	12.4 , 28.6	Lower
Artaban House	03111	Greenfield	0	5	0.0%	0.0 , 45.1	Lower
Assisted Living at Sugar Hill	02519	Wolfeboro	35	41	85.4%	72.0 , 93.9	Higher
Austin Home	02923	Webster	8	9	88.9%	56.1 , 99.4	Similar
Aynsley Place	01526	Nashua	34	45	75.6%	61.5 , 86.4	Higher
Bedford Falls Assisted Living	03983	Bedford	45	103	43.7%	34.4 , 53.4	Lower
Bellamy Fields Assisted Living	03096	Dover	70	111	63.1%	53.8 , 71.7	Similar
Bentley Commons at Bedford	03348	Bedford	35	56	62.5%	49.3 , 74.4	Similar
Bentley Commons at Keene	03545	Keene	120	123	97.6%	93.5 , 99.4	Higher
Best Place, LLC	03931	Franklin	4	4	100.0%	47.3 , -	Similar
Birch House	03118	Temple	1	19	5.3%	0.3 , 23.3	Lower
Birches at Concord	03698	Concord	51	89	57.3%	46.9 , 67.3	Similar
Boulders at RiverWoods	03619	Exeter	78	87	89.7%	81.9 , 94.8	Higher
Canterbury Hall	04075	Canterbury	6	10	60.0%	29.1 , 85.8	Similar
Carlyle Place	01548	Bedford	75	81	92.6%	85.2 , 96.9	Higher
Carpenter Home	00836	Swanzey	10	10	100.0%	74.1 , -	Higher
Carriage House of Northfield	03969	Northfield	7	27	25.9%	12.1 , 44.7	Lower
Castle Center Life Enrichment Program	02914	Keene	15	15	100.0%	81.9 , -	Higher

**Table 1. Continued, Influenza vaccination percentages for HCP by ALF, 2014-15 influenza season (October 1, 2014–March 31, 2015)**

ALF	License #	City	HCP Vaccinated	Total HCP	% HCP Vaccinated	95% Confidence Interval	ALF % Compared to State %
Community Living for Elderly	03333	West Ossipee	3	6	50.0%	14.7 , 85.3	Similar
Connecticut Valley Day Out Program	02751	Newport	7	7	100.0%	65.2 , -	Higher
Copphill Residential Care	03543	Sanbornville	2	2	100.0%	22.4 , -	Similar
Courville at Manchester	03903	Manchester	66	111	59.5%	50.1 , 68.3	Similar
Crossroad Farm	00857	Temple	1	19	5.3%	0.3 , 23.3	Lower
Desiree's Place	03495	Rochester	3	11	27.3%	7.5 , 57.8	Lower
Easter Seals, NH	01779	Manchester	15	28	53.6%	35.2 , 71.2	Similar
Echo Farm	02422	Temple	1	19	5.3%	0.3 , 23.3	Lower
Emeritus at Spruce Wood	03728	Durham	23	81	28.4%	19.4 , 38.9	Lower
Ernest P. Barka Assisted Living	02934	Brentwood	10	30	33.3%	18.3 , 51.4	Lower
Evergreen Place	03170	Manchester	24	52	46.2%	33.0 , 59.7	Similar
Fairview Healthcare	04015	Hudson	150	260	57.7%	51.6 , 63.6	Similar
Forestview Manor 1 Assisted Living	03677	Meredith	42	58	72.4%	59.9 , 82.7	Similar
Forestview Manor 2 Assisted Living	03678	Meredith	42	58	72.4%	59.9 , 82.7	Similar
Forestview Manor 3 Assisted Living	03679	Meredith	42	58	72.4%	59.9 , 82.7	Similar
Four Winds Community Iona House	02838	Wilton	5	8	62.5%	27.8 , 89.4	Similar
Four Winds Community St. Oran House	03147	Temple	5	8	62.5%	27.8 , 89.4	Similar
Fox Den Retirement Community	03996	Sandown	4	19	21.1%	7.1 , 43.3	Lower

**Table 1. Continued, Influenza vaccination percentages for HCP by ALF, 2014-15 influenza season (October 1, 2014–March 31, 2015)**

ALF	License #	City	HCP Vaccinated	Total HCP	% HCP Vaccinated	95% Confidence Interval	ALF % Compared to State %
Fox Meadow Retirement Home	02801	Bristol	2	7	28.6%	5.1 , 67.0	Similar
Freedom House	04060	Freedom	5	8	62.5%	27.8 , 89.4	Similar
Friendship Manor	01337	New Ipswich	8	17	47.1%	24.8 , 70.3	Similar
Gafney Home	00118	Rochester	17	44	38.6%	25.2 , 53.5	Lower
Gateways Adult Day Service Program	02752	Nashua	10	13	76.9%	49.1 , 93.8	Similar
Gerrish Manor Assisted Living	02738	Boscawen	12	13	92.3%	67.5 , 99.6	Higher
Golden Crest	02785	Franklin	5	39	12.8%	4.9 , 26.2	Lower
Grace House of Windham	03498	Windham	10	22	45.5%	25.9 , 66.2	Similar
Granite Ledges of Concord	02698	Concord	67	71	94.4%	87.0 , 98.2	Higher
Great Bay Residential Facility II/Lafayette Apts.	00759	Portsmouth	2	6	33.3%	6.0 , 73.8	Similar
Greystone Farm at Salem	03711	Salem	32	90	35.6%	26.2 , 45.8	Lower
Harmony Homes	03794	Durham	13	22	59.1%	38.1 , 77.9	Similar
Harvest Hill Independent and Assisted Living Facility	02420	Lebanon	78	83	94.0%	87.2 , 97.8	Higher
Hattie's Place	02711	Farmington	5	10	50.0%	21.2 , 78.8	Similar
Havenwood Heritage Heights	02431	Concord	18	22	81.8%	61.8 , 93.9	Higher
Havenwood Lodge Assisted Living	03904	Concord	10	10	100.0%	74.1 , -	Higher
Hemlock Hill	04002	Loudon	0	6	0.0%	0.0 , 39.3	Lower
Holton Point	03709	Lancaster	18	20	90.0%	70.7 , 98.3	Higher
Homemakers Health Services	02610	Rochester	17	20	85.0%	64.4 , 96.0	Higher
Horseshoe Pines	01827	Goshen	3	6	50.0%	14.7 , 85.3	Similar

**Table 1. Continued, Influenza vaccination percentages for HCP by ALF, 2014-15 influenza season (October 1, 2014–March 31, 2015)**

ALF	License #	City	HCP Vaccinated	Total HCP	% HCP Vaccinated	95% Confidence Interval	ALF % Compared to State %
Huggins Hospital Adult Day Care	01990	Wolfboro	12	12	100.0%	77.9 , -	Higher
Hummingbirds Home	03086	Silver Lake	1	4	25.0%	1.3 , 75.8	Similar
Hunt Community	03919	Nashua	30	46	65.2%	50.7 , 77.9	Similar
Huntington at Nashua	03905	Nashua	37	44	84.1%	71.1 , 92.8	Higher
Inn at Deerfield	02784	Deerfield	9	46	19.6%	10.0 , 32.9	Lower
Inn at Golden View	02734	Meredith	31	34	91.2%	77.8 , 97.7	Higher
Inn at Parker Station	02612	Goffstown	4	9	44.4%	16.1 , 76.0	Similar
Jovis House	03601	Greenfield	0	6	0.0%	0.0 , 39.3	Lower
Kearsarge Good Day Respite	03477	London	33	34	97.1%	86.3 , 99.9	Higher
Kendal at Hanover	01954	Hanover	326	362	90.1%	86.6 , 92.8	Higher
Kirkwood Corners	04014	Lee	2	43	4.7%	0.8 , 14.5	Lower
Langdon Place of Dover	03906	Dover	6	6	100.0%	60.7 , -	Higher
Langdon Place of Exeter	02694	Exeter	61	63	96.8%	89.9 , 99.5	Higher
Langdon Place of Keene	03921	Keene	108	110	98.2%	94.1 , 99.7	Higher
Langdon Place of Nashua	02692	Nashua	88	96	91.7%	84.8 , 96.1	Higher
Langdon Place of Portsmouth at Clipper Harbor	02453	Portsmouth	34	34	100.0%	91.6 , -	Higher
Laurel Place Assisted Living	03263	Hudson	20	37	54.1%	38.0 , 69.5	Similar
Ledgewood Bay Assisted Living	03650	Milford	60	120	50.0%	41.1 , 58.9	Similar
Ledgewood Bay Memory Care	03651	Milford	60	120	50.0%	41.1 , 58.9	Similar
Ledgewood House	03061	Temple	1	19	5.3%	0.3 , 23.3	Lower
Lilac View	03871	Rochester	8	14	57.1%	31.2 , 80.4	Similar

**Table 1. Continued, Influenza vaccination percentages for HCP by ALF, 2014-15 influenza season (October 1, 2014–March 31, 2015)**

ALF	License #	City	HCP Vaccinated	Total HCP	% HCP Vaccinated	95% Confidence Interval	ALF % Compared to State %
Lincoln Terrace Home, Inc	02032	Rochester	0	8	0.0%	0.0 , 31.2	Lower
Longfellow's	00960	East Andover	0	2	0.0%	0.0 , 77.6	Similar
Mae's Place LLC	02773	Bristol	4	4	100.0%	47.3 , -	Similar
Maintaining Independence Adult Day Services, Inc.	04057	Hooksett	1	1	100.0%	5.0 , -	Similar
Manor at BirchHill Terrace	03095	Manchester	23	76	30.3%	20.7 , 41.3	Lower
Maplewood Assisted Living of Cheshire County	02670	Westmoreland	9	20	45.0%	24.6 , 66.7	Similar
Mark Wentworth Home	00147	Portsmouth	43	103	41.7%	32.5 , 51.4	Lower
McCoy Home	02581	Newport	6	8	75.0%	38.8 , 95.6	Similar
Meadow View Manor	01450	Rochester	0	2	0.0%	0.0 , 77.6	Similar
Meredith Bay Colony Club	03544	Meredith	18	57	31.6%	20.5 , 44.5	Lower
Merry Meadow Farm- Hanover House	02088	Hanover	3	8	37.5%	10.6 , 72.2	Similar
Mineral Springs Center	03908	North Conway	19	20	95.0%	77.7 , 99.8	Higher
Monadnock Adult Care Center	03299	Jaffrey	14	20	70.0%	47.7 , 86.8	Similar
Myrtle Manor II, Inc.	02233	Manchester	5	6	83.3%	40.9 , 99.2	Similar
Nashua Crossings	04066	Nashua	34	102	33.3%	24.7 , 42.9	Lower
Neurorestorative	03573	Chichester	0	20	0.0%	0.0 , 13.9	Lower
North Country Independent Living Inc.	02503	Barrington	4	15	26.7%	9.1 , 52.5	Lower
North Country Manor	03464	Littleton	7	7	100.0%	65.2 , -	Higher
Nottingham House	04039	Deerfield	0	15	0.0%	0.0 , 18.1	Lower

**Table 1. Continued, Influenza vaccination percentages for HCP by ALF, 2014-15 influenza season (October 1, 2014–March 31, 2015)**

ALF	License #	City	HCP Vaccinated	Total HCP	% HCP Vaccinated	95% Confidence Interval	ALF % Compared to State %
On The Green Assisted Living	00835	Haverhill	3	4	75.0%	24.2 , 98.8	Similar
Our Place Inn Time	03311	Farmington	6	7	85.7%	47.0 , 99.3	Similar
Outreach House, Inc.	02468	Hanover	14	20	70.0%	47.7 , 86.8	Similar
Partridge House Assisted Living	03400	Hampton	42	42	100.0%	93.1 , -	Higher
Peabody Home- Assisted Living	02460	Franklin	11	23	47.8%	28.3 , 67.9	Similar
Peaceful Harvest Home LLC	02624	Charlestown	15	15	100.0%	81.9 , -	Higher
Pillsbury Home	01607	Milford	13	19	68.4%	45.5 , 86.1	Similar
Pine Hill Retirement Home	01058	Windham	7	10	70.0%	38.0 , 91.7	Similar
Pine Rock Manor	04013	Warner	3	67	4.5%	1.2 , 11.7	Lower
Pine View Haven	02330	Andover	1	1	100.0%	5.0 , -	Similar
Pines of Newmarket	04012	Newmarket	2	57	3.5%	0.6 , 11.1	Lower
Pond View Acres Assisted Living Home	02822	Barrington	4	13	30.8%	10.6 , 58.7	Similar
Poplin Way Assisted Living	02883	Fremont	15	18	83.3%	61.0 , 95.6	Higher
Presidential Oaks	01817	Concord	89	113	78.8%	70.5 , 85.6	Higher
Presidential Oaks - Assisted Living	03522	Concord	36	47	76.6%	63.0 , 87.0	Higher
Prospect Place	02391	Keene	20	23	87.0%	68.5 , 96.6	Higher
Pyareo Home	02772	Sanbornton	0	2	0.0%	0.0 , 77.6	Similar
Red Farm House	03071	Greenfield	1	4	25.0%	1.3 , 75.8	Similar
Residential Facility I/Woodbury Apts.	00754	Newington	4	10	40.0%	14.2 , 70.9	Similar
Residential Opportunities	01753	Portsmouth	5	12	41.7%	17.2 , 69.8	Similar

**Table 1. Continued, Influenza vaccination percentages for HCP by ALF, 2014-15 influenza season (October 1, 2014–March 31, 2015)**

ALF	License #	City	HCP Vaccinated	Total HCP	% HCP Vaccinated	95% Confidence Interval	ALF % Compared to State %
Ridge at RiverWoods	03909	Exeter	60	94	63.8%	53.8 , 73.1	Similar
Riverglen House Independent/Assisted Living	02935	Littleton	12	30	40.0%	23.8 , 58.1	Similar
RiverMead	03910	Peterborough	99	120	82.5%	74.9 , 88.5	Higher
RiverMead Assisted Living at the Village	03954	Peterborough	69	80	86.3%	77.4 , 92.6	Higher
RiverWoods at Exeter	03920	Exeter	52	97	53.6%	43.7 , 63.4	Similar
Robin Hill Farm - Meredith House Program	02119	Hillsboro	16	36	44.4%	29.0 , 60.8	Similar
Rose Haven Assisted Living	01844	Merrimack	11	19	57.9%	35.4 , 78.2	Similar
Rose Meadow Farm	02182	New Boston	27	31	87.1%	71.8 , 95.8	Higher
Rose Meadow Garden, Inc.	03289	New Boston	45	50	90.0%	79.2 , 96.2	Higher
Rosewood Manor, LLC	02780	Gonic	1	9	11.1%	0.6 , 43.9	Lower
Sanctuary Care at Rye	04058	Rye	2	63	3.2%	0.5 , 10.1	Lower
SarahCare Adult Day Services	03209	Hampstead	11	13	84.6%	57.8 , 97.3	Similar
Sartwell Place	01995	Whitefield	12	15	80.0%	54.7 , 94.7	Similar
Scott-Farrar Home	01441	Peterborough	10	20	50.0%	28.9 , 71.1	Similar
Seaside Elderly Day Out Center	02740	Hampton	2	5	40.0%	7.3 , 81.8	Similar
Seasons at Summercrest	03874	Newport	15	20	75.0%	53.0 , 90.2	Similar
Silver Maples Residential Care	03868	Claremont	11	12	91.7%	65.3 , 99.6	Higher
Silverthorne Adult Day Center	02616	Salem	2	8	25.0%	4.4 , 61.2	Similar
Studley Home	03787	Rochester	5	26	19.2%	7.4 , 37.6	Lower
Studley Home, Inc	02652	Rochester	5	26	19.2%	7.4 , 37.6	Lower

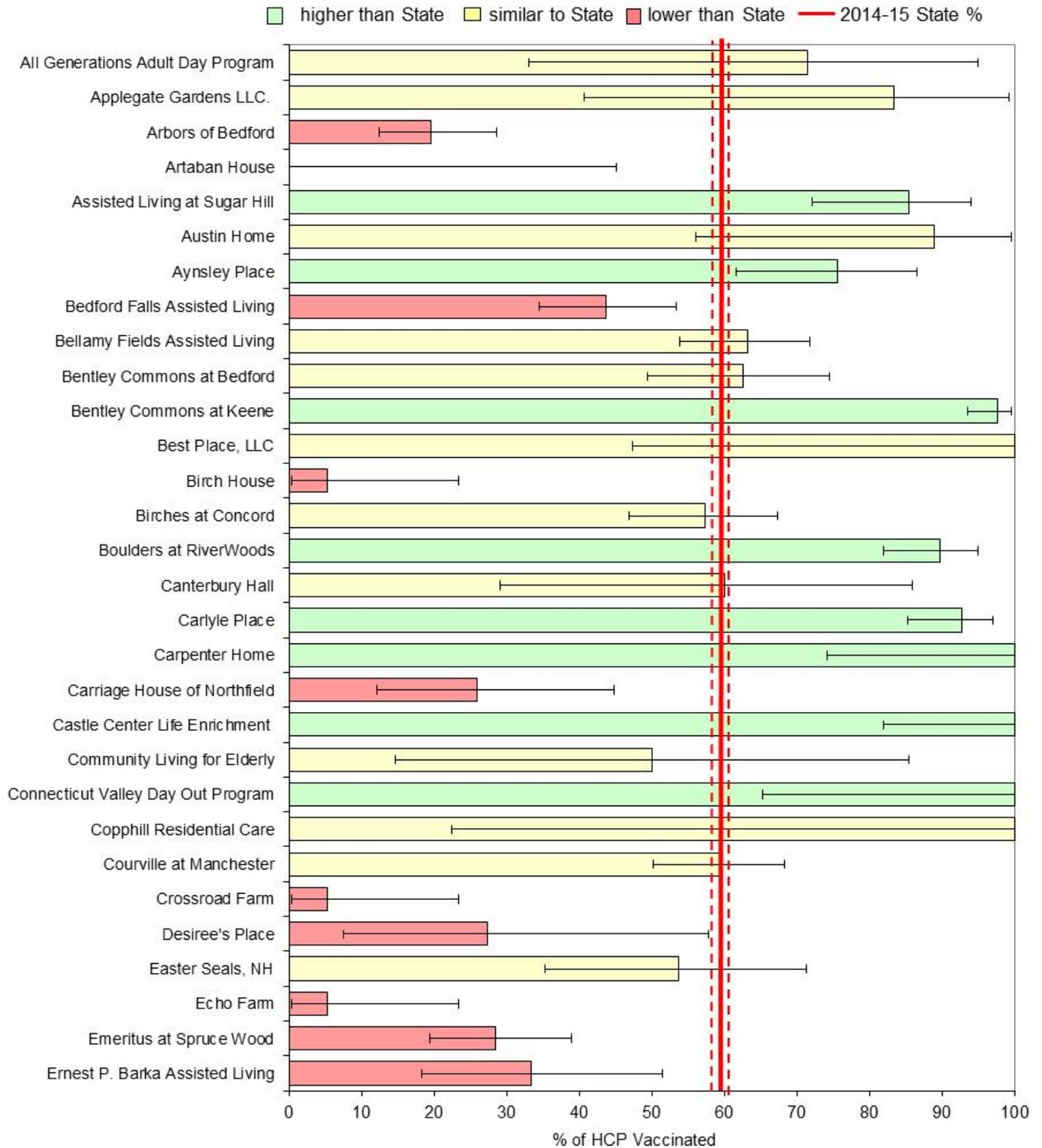
**Table 1. Continued, Influenza vaccination percentages for HCP by ALF, 2014-15 influenza season (October 1, 2014–March 31, 2015)**

ALF	License #	City	HCP Vaccinated	Total HCP	% HCP Vaccinated	95% Confidence Interval	ALF % Compared to State %
Summercrest Assisted Living, LLC	03377	Newport	11	27	40.7%	23.6 , 59.8	Similar
Summerhill Assisted Living	03199	Peterborough	3	14	21.4%	5.8 , 48.0	Lower
Sunapee Cove	04004	Georges Mills	18	30	60.0%	41.9 , 76.2	Similar
Sunapee Cove	04005	Georges Mills	20	30	66.7%	48.6 , 81.7	Similar
Taylor Community	00062	Laconia	42	127	33.1%	25.3 , 41.6	Lower
Taylor Community-Ledgeview	03907	Laconia	42	127	33.1%	25.3 , 41.6	Lower
Thompson House	04061	Freedom	6	8	75.0%	38.8 , 95.6	Similar
TLC Medical Day Care for Adults	02560	Concord	12	16	75.0%	50.1 , 91.5	Similar
Tobias Community, Inc.	03998	Temple	3	25	12.0%	3.1 , 29.3	Lower
Upper Valley Good Day Respite	03802	Lebanon	10	10	100.0%	74.1 , -	Higher
Van Dyke House	03245	Colebrook	4	10	40.0%	14.2 , 70.9	Similar
Victorian House	04062	Ossipee	7	12	58.3%	30.2 , 82.8	Similar
Victorian Heights	03530	Portsmouth	8	11	72.7%	42.2 , 92.6	Similar
Villacrest Nursing and Retirement Center	03966	Manchester	18	25	72.0%	52.3 , 86.9	Similar
Villager	02221	Goffstown	15	15	100.0%	81.9 , -	Higher
Vintage Grace	02791	Derry	6	11	54.5%	25.9 , 81.0	Similar
Vintage Hill, LLC	03084	Pittsfield	3	8	37.5%	10.6 , 72.2	Similar
Wadleigh House	03613	Dover	4	29	13.8%	4.5 , 30.0	Lower
Warde Health Center SRC	02580	Windham	19	20	95.0%	77.7 , 99.8	Higher
Washington Manor	02912	Manchester	5	6	83.3%	40.9 , 99.2	Similar
Watson Fields Assisted Living	03528	Dover	71	109	65.1%	55.8 , 73.6	Similar

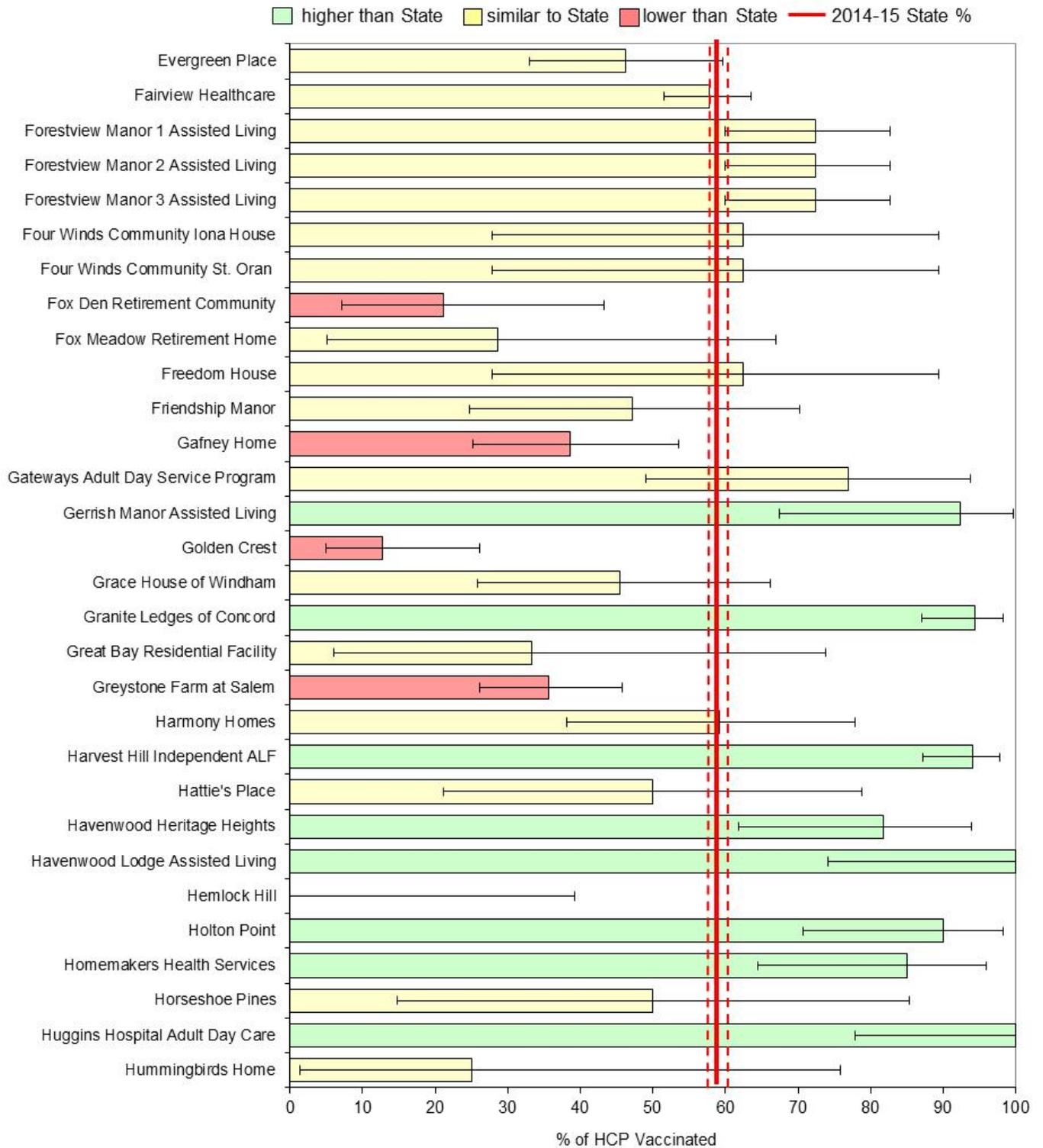
**Table 1. Continued, Influenza vaccination percentages for HCP by ALF, 2014-15 influenza season (October 1, 2014–March 31, 2015)**

ALF	License #	City	HCP Vaccinated	Total HCP	% HCP Vaccinated	95% Confidence Interval	ALF % Compared to State %
We Care Assisted Living Home	03291	Allenstown	4	7	57.1%	21.6 , 87.7	Similar
Webster at Rye Assisted Living	03817	Rye	12	18	66.7%	43.1 , 85.2	Similar
Wellstone House	02755	Raymond	7	16	43.8%	21.5 , 68.1	Similar
Wentworth Home for the Aged	01532	Dover	29	54	53.7%	40.4 , 66.6	Similar
Wentworth House	04063	Center Ossipee	5	12	41.7%	17.2 , 69.8	Similar
Westboro Residential Care, LLC.	04046	West Lebanon	5	6	83.3%	40.9 , 99.2	Similar
Wheelock Terrace	02767	Hanover	21	76	27.6%	18.5 , 38.5	Lower
Windham Terrace Assisted Living	02783	Windham	23	79	29.1%	19.9 , 39.8	Lower
Woodcrest Village LLC	02614	New London	39	61	63.9%	51.4 , 75.2	Similar
Woodward Home	02259	Keene	26	34	76.5%	60.2 , 88.4	Similar
<b>State Total</b>			3,776	6371	59.3%	58.1 , 60.5	

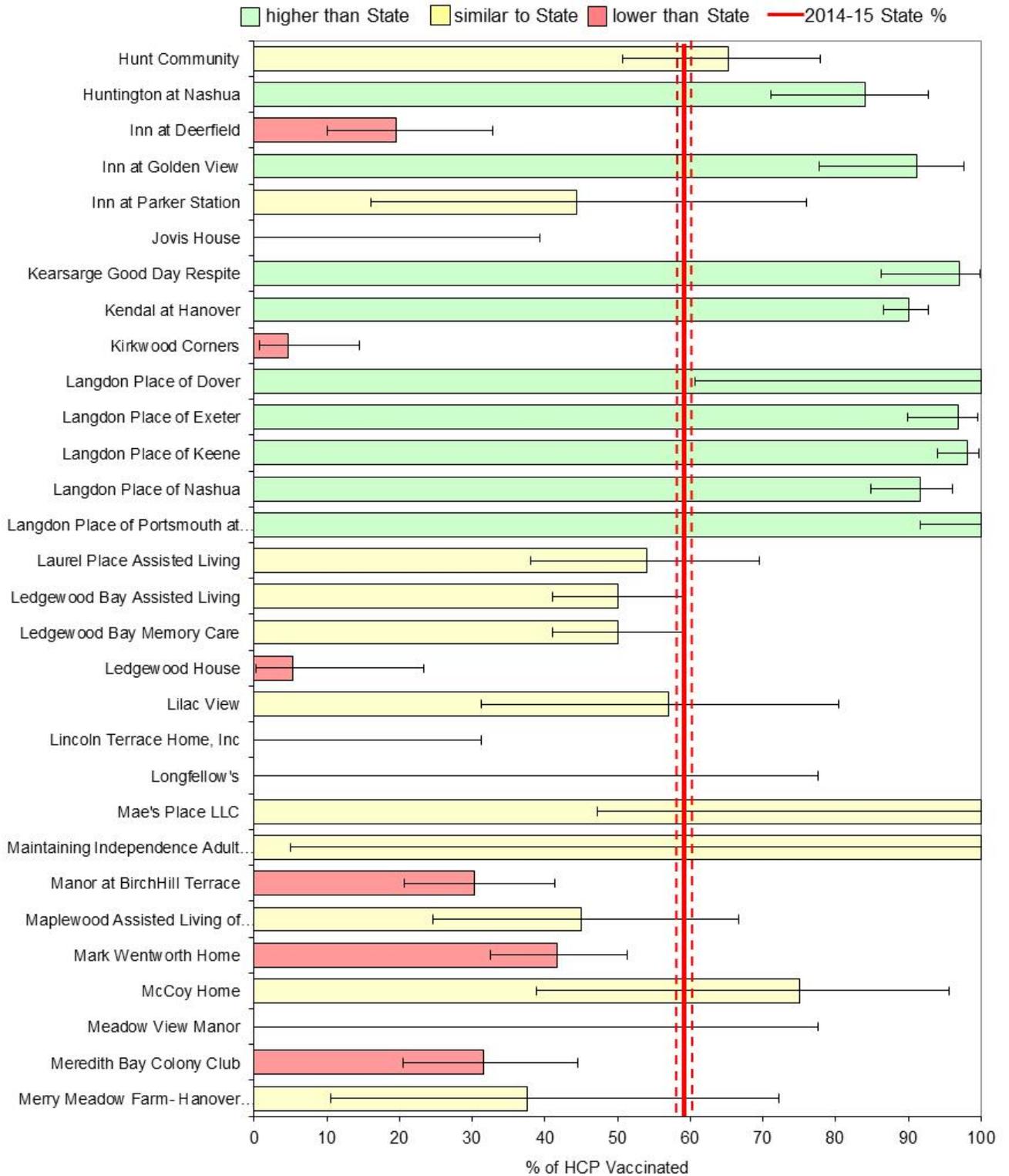
**Figure 2. Influenza vaccination percentages for ALF HCP by ALF, 2014-15 influenza season (October 1, 2014—March 31, 2015)**



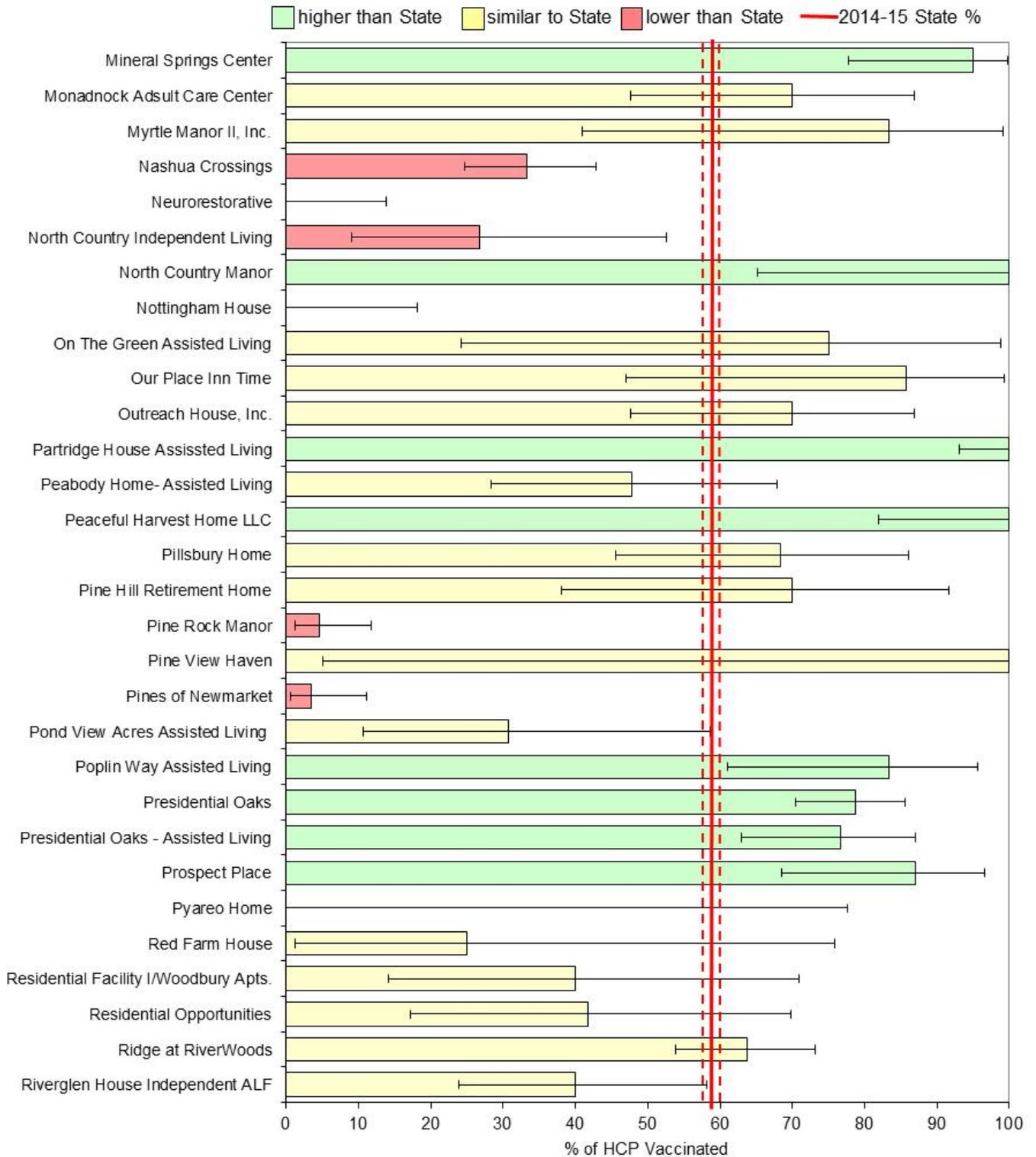
**Figure 2. Continued, Influenza vaccination percentages for ALF HCP by ALF, 2014-15 influenza season (October 1, 2014—March 31, 2015)**



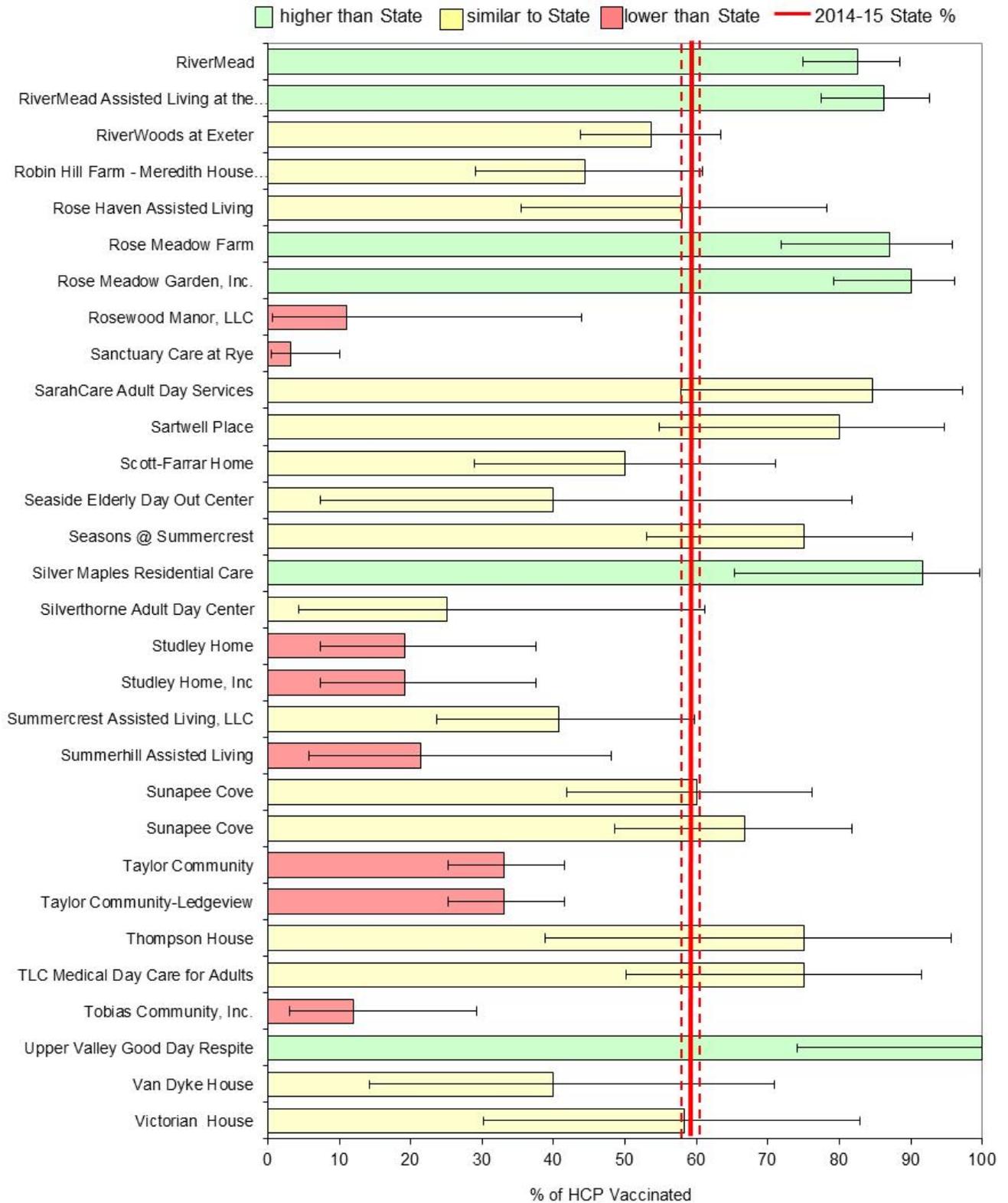
**Figure 2. Continued, Influenza vaccination percentages for ALF HCP by ALF, 2014-15 influenza season (October 1, 2014—March 31, 2015)**



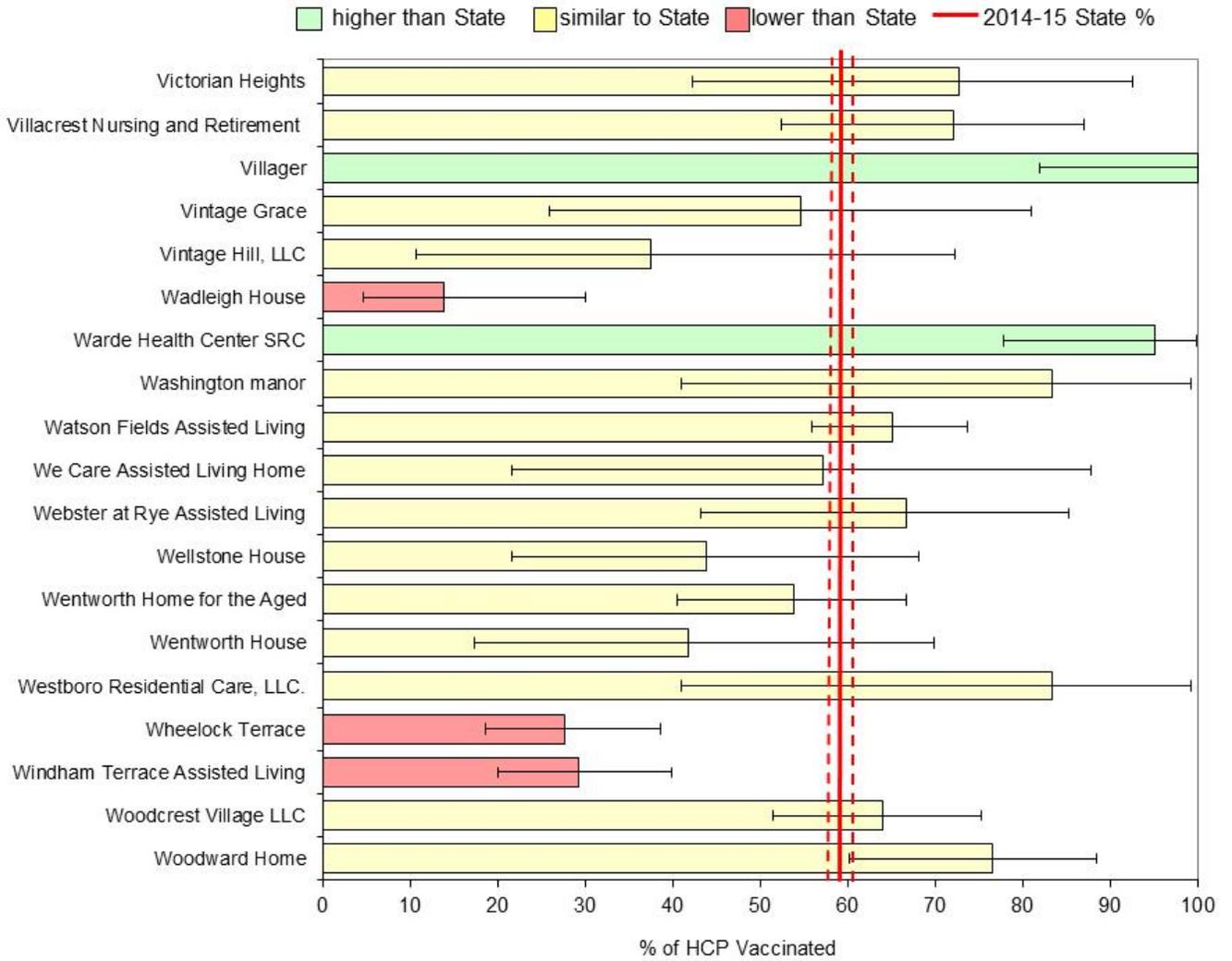
**Figure 2. Continued, Influenza vaccination percentages for ALF HCP by ALF, 2014-15 influenza season (October 1, 2014—March 31, 2015)**



**Figure 2. Continued, Influenza vaccination percentages for ALF HCP by ALF, 2014-15 influenza season (October 1, 2014—March 31, 2015)**



**Figure 2. Continued, Influenza vaccination percentages for ALF HCP by ALF, 2014-15 influenza season (October 1, 2014—March 31, 2015)**



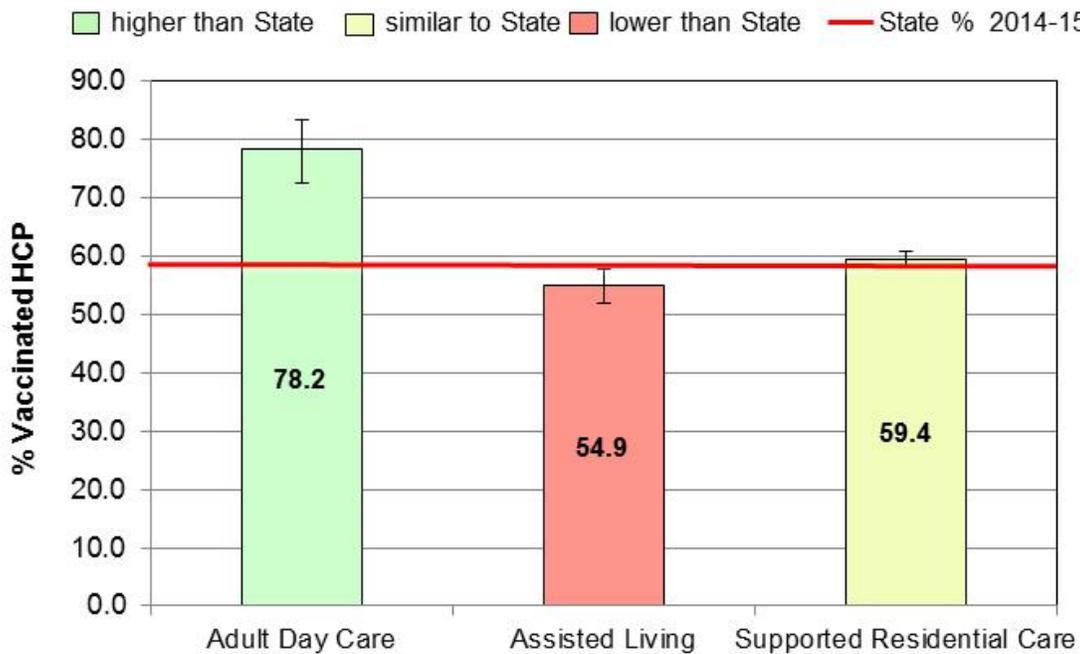
**Influenza Vaccination Percentages: Comparison to 2013-14 Data**

The statewide ALF HCP influenza vaccination percentage increased significantly between the 2013-14 (56.3%) and 2014-15 influenza season (59.3%). Analysis of the data shows that 11 ALF increased HCP influenza vaccination in 2014-15 compared to 2013-14, 130 ALF had similar vaccination percentages, and seven ALF decreased influenza vaccination percentage. Twenty-one facilities could not be compared with the prior season because either their license expired, lapsed and was reinstated, or were newly licensed and did not have any data in previous season.

**Influenza Vaccination Percentages: Comparison of Assisted Living Facility Types**

In New Hampshire, 16 adult day care, 64 assisted living, and 89 supported residential care facilities were licensed for at least part of the 2014-15 influenza season. Figure 3 below shows that HCP influenza vaccination coverage in adult day care facilities was significantly higher (78.2%) than the State percentage, coverage in assisted living facilities was significantly lower (54.9%) than the State percentage, and coverage in supported residential care facilities was similar (59.4%) to the State percentage. In addition, there were significant differences between each facility type; adult day care coverage was significantly higher than both assisted living and supported residential care coverage; and assisted living coverage was significantly lower than both adult day care and supported residential care coverage. This demonstrates that, although these three facility types are pooled in these analyses, there may be significant differences between the three facility types and they may need to be analyzed separately in future reports.

**Figure 3. Influenza vaccination percentage comparison by facility type, 2014-15 influenza season**



### Mandatory Influenza Vaccination Policies for Healthcare Personnel

During the 2014-15 influenza season, 40 (24%) of 169 ALF 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 (Table 2). Among the 40 ALF with a policy, four (10%) allowed for only medical exemptions, three (8%) allowed for only medical and religious exemptions, one (3%) allowed for medical and personal/philosophical, two (5%) allowed for personal/philosophical, 27 (69%) allowed for medical, religious, and personal/philosophical exemptions, and three (8%) allowed for other exemptions. Twenty-four (60%) ALF required unvaccinated HCP with an approved exemption to wear a mask, 10 (25%) ALF required those HCP to receive verbal or written education, and six (15%) had other unspecified requirements. Four (10%) ALF stated that unvaccinated HCP without an accepted exemption would be subject to progressive discipline as a consequence. Twenty-one (52%) ALF required unvaccinated non-exempt HCP to wear a mask, 11 (27.5%) ALF required verbal or written education only, and four (10%) ALF had other unspecified consequences. Figure 4 shows that ALF with vaccination policies had significantly higher percentages of influenza vaccination as a whole (87.7%) than ALF without policies (49.3%). ALF that utilized progressive discipline, potentially including termination, as a consequence for their unvaccinated HCP without an acceptable reason for exemption had a higher vaccination percentage (94.4%) than ALF that did not (87.3%), however this difference was not statistically significant.

**Figure 4. Influenza vaccination percentages for ALF with and without vaccination policies, 2014-15 influenza season**



**Table 2. Influenza vaccination policies and consequences for HCP by ALF, 2014-15 influenza season**

<b>ALF</b>	<b>Exemptions Allowed in Policy*</b>	<b>Requirements for Unvaccinated HCP with Accepted Exemption</b>	<b>Consequences for Unvaccinated HCP without Accepted Exemption</b>
Applegate Gardens LLC. Residential Care	Medical	Wear a mask, Receive verbal and/or written education	Wear a mask
Assisted Living at Sugar Hill	Medical, Religious, Personal/philosophical	Wear a mask	Wear a mask, Receive verbal and/or written education
Bentley Commons at Keene	Medical, Religious, Personal/philosophical	Wear a mask, Receive verbal and/or written education	Wear a mask, Receive verbal and/or written education
Carpenter Home	Medical, Religious, Personal/philosophical	Wear a mask, Receive verbal and/or written education	Wear a mask, Progressive discipline, potentially including termination, Receive verbal and/or written education
Castle Center Life Enrichment Program	Medical, Religious	Wear a mask	Progressive discipline, potentially including termination
Connecticut Valley Day Out Program	Medical, Religious, Personal/philosophical	Wear a mask	Receive verbal and/or written education
Four Winds Community Iona House	Medical, Religious, Personal/philosophical	Receive verbal and/or written education	Receive verbal and/or written education
Four Winds Community St. Oran House	Medical, Religious, Personal/philosophical	Receive verbal and/or written education	Receive verbal and/or written education
Granite Ledges of Concord	Medical, Religious, Personal/philosophical	Wear a mask	Wear a mask
Harvest Hill Independent and Assisted Living Facility	Medical, Religious, Personal/philosophical	Wear a mask	Wear a mask
Havenwood Heritage Heights	Medical, Religious, Personal/philosophical	Receive verbal and/or written education	Receive verbal and/or written education, Other
Havenwood Lodge Assisted Living	Medical, Religious, Personal/philosophical	Receive verbal and/or written education	Wear a mask, Receive verbal and/or written education
Holton Point	Medical, Religious, Personal/philosophical	Wear a mask	Wear a mask
Huggins Hospital Adult Day Care	Medical, Religious, Personal/philosophical	Wear a mask	Wear a mask
Hummingbirds Home	Personal/philosophical	Other	Receive verbal and/or written education

**Table 2. Continued, Influenza vaccination policies and consequences for HCP by ALF, 2014-15 influenza season**

<b>ALF</b>	<b>Exemptions Allowed in Policy*</b>	<b>Requirements for Unvaccinated HCP with Accepted Exemption</b>	<b>Consequences for Unvaccinated HCP without Accepted Exemption</b>
Inn at Golden View	Medical, Religious, Personal/philosophical	Wear a mask, Receive verbal and/or written education	Wear a mask, Receive verbal and/or written education
Kendal at Hanover	Medical, Religious, Personal/philosophical	Wear a mask, Receive verbal and/or written education	Wear a mask
Langdon Place of Dover	Medical, Religious, Personal/philosophical	Wear a mask	Receive verbal and/or written education
Langdon Place of Exeter	Medical, Religious, Personal/philosophical	Wear a mask	Wear a mask
Langdon Place of Keene	Medical, Religious, Personal/philosophical	Wear a mask, Receive verbal and/or written education	Wear a mask, Receive verbal and/or written education
Langdon Place of Nashua	Medical, Religious, Personal/philosophical	Wear a mask	Wear a mask
Langdon Place of Portsmouth at Clipper Harbor	Medical, Religious, Personal/philosophical	Wear a mask	Wear a mask, Receive verbal and/or written education
Mae's Place LLC	Medical, Religious	Wear a mask	Wear a mask, Receive verbal and/or written education
Maintaining Independence Adult Day Services, Inc.	Medical, Religious, Personal/philosophical	Receive verbal and/or written education	Receive verbal and/or written education
Mineral Springs Center	Other	Wear a mask, Receive verbal and/or written education	Wear a mask, Receive verbal and/or written education, Other
Monadnock Adult Care Center	Medical, Religious, Personal/philosophical	Other	Other
North Country Manor	Medical	Other	Other
Partridge House Assisted Living	Medical, Religious, Personal/philosophical	Wear a mask, Receive verbal and/or written education	Wear a mask, Receive verbal and/or written education
Peabody Home- Assisted Living	Medical, Religious, Personal/philosophical	Receive verbal and/or written education	Receive verbal and/or written education
Peaceful Harvest Home LLC	Medical, Religious	Wear a mask, Receive verbal and/or written education	Progressive discipline, potentially including termination
Pine View Haven	Personal/philosophical	Other	Other
Pyareo Home	Medical, Religious, Personal/philosophical	Receive verbal and/or written education	Wear a mask

**Table 2. Continued, Influenza vaccination policies and consequences for HCP by ALF, 2014-15 influenza season**

<b>ALF</b>	<b>Exemptions Allowed in Policy*</b>	<b>Requirements for Unvaccinated HCP with Accepted Exemption</b>	<b>Consequences for Unvaccinated HCP without Accepted Exemption</b>
RiverMead	Medical, Religious, Personal/philosophical	Receive verbal and/or written education	Receive verbal and/or written education
RiverMead Assisted Living at the Village	Other	Receive verbal and/or written education	Receive verbal and/or written education
Rose Meadow Garden, Inc.	Medical	Wear a mask, Receive verbal and/or written education	Progressive discipline, potentially including termination, Receive verbal and/or written education
SarahCare Adult Day Services	Medical, Personal/philosophical	Receive verbal and/or written education	Receive verbal and/or written education
Sartwell Place	Other	Wear a mask, Receive verbal and/or written education	Wear a mask, Receive verbal and/or written education
Villager	Medical, Religious, Personal/philosophical	Wear a mask	Wear a mask, Receive verbal and/or written education
Westboro Residential Care, LLC.	Medical	Other	Wear a mask, Receive verbal and/or written education
Wheelock Terrace	Medical, Religious, Personal/philosophical	Other	Other

\* Exemptions include Medical, Religious, Personal/philosophical, and Other.

Note: Table 2 only includes ALF with vaccination policies in place during the 2014-15 season. Forty-six ALF did not have mandatory vaccination policies during the 2014-15 influenza season, but were considering one at the time of the survey. Eighty-three ALF did not have mandatory vaccination policies during 2014-15 influenza season, and were not considering one at the time of the survey.

## **IV. CONCLUSIONS**

This first report of ALF HAI data is an important part of continuing progress toward the goal of eliminating HAI, including healthcare-acquired influenza, in NH. This report provides influenza vaccination coverage data, which can be used by ALF in the State to identify areas for improvement as well as healthcare consumers to make informed healthcare decisions.

Key findings described in this report include the following:

- During the 2014-15 influenza season, there were 16 adult day care, 64 assisted living, and 89 supported residential care facilities, totaling 169 ALF. Vaccination percentages by ALF during the 2014-15 influenza season ranged from 0.0% to 100.0%. The overall State percentage was 59.3%, which represents a significant increase from the 2013-14 influenza season when the statewide ALF vaccination percentage was 56.3%.
- The State ALF vaccination percentages from the 2008-09 influenza season to the 2014-15 influenza season varied each year, ranging from 44.5% to 59.3%.
- HCP influenza vaccination coverage varied by ALF type. Influenza vaccination coverage at adult day care facilities was significantly higher (78.2%) and vaccination at supported residential care facilities was similar (59.4%) to the State percentage. However, HCP influenza vaccination at assisted living facilities was significantly lower (54.9%) than the State percentage.
- Forty (24%) of 169 ALF had influenza vaccination policies for HCP during the 2014-15 season. Overall, ALF with vaccination policies had significantly higher percentages of influenza vaccination as a whole (87.7%) than ALF without policies (49.3%).

While this report only includes information on HCP influenza vaccination coverage in ALF, the information provided can be used as an important indicator of healthcare quality and infection prevention efforts in NH adult day care, supported residential care, and assisted living facilities.

Healthcare consumers can discuss the information provided in this report with their healthcare provider and should review Appendix 3 for information on what individual patients can do to prevent HAI, including healthcare-associated influenza.

## APPENDIX 1: Technical Notes

1. Data in this report were extracted from an online survey on 06/24/2015. Changes reported by ALF after this date are not reflected in this report.
2. All confidence intervals presented in this report are 95% confidence intervals. A confidence interval is a measure of certainty (usually with 95% confidence) of an estimate (such as a percentage). Because we can never obtain a facility's true "population" data (e.g., all patients for all time), we use statistical procedures to "estimate" various measurements using "sample" data. Since estimates have "variability" we use 95% confidence limits to describe the variability around the estimate. The confidence interval (CI) gives us the range within which the TRUE value will fall 95% of the time, assuming that the sample data are reflective of the true population. If the confidence intervals for the two percentages overlap, then it is reasonably possible that the REAL percentages are not different from one another.
3. Statistical significance is affected by sample size. If a value is almost or just barely significant, just a few additional observations can push significance one way or the other (i.e., not significant or significant).

### Process Measure Percentages

1. Calculating an influenza vaccination percentage: Influenza vaccination percentages are presented as the number of persons vaccinated divided by the total number of persons expressed as a percent.

$$\text{Influenza Vaccination (\%)} = (\text{number of persons vaccinated} / \text{total number of persons}) \times 100$$

2. Calculating a corresponding confidence interval for an influenza vaccination percentage: Confidence intervals calculated for influenza vaccination data presented in this report are mid-p exact 95% confidence intervals, which were calculated using a statistical software program.
3. Interpreting a proportion confidence interval for vaccination data: A confidence interval is a measure of certainty (usually with 95% confidence) of an estimate (such as a percentage). Confidence intervals can be used to assess whether differences in the percentages observed for each group (for example, ALF vs. State) is statistically significant (or significantly different).
  - a. Confidence intervals that overlap the State confidence interval are considered "Similar" to the overall State percentage.
  - b. Confidence intervals that are lower than and do not overlap the State confidence interval are considered "Lower" than the overall State percentage.
  - c. Confidence intervals that are higher than and do not overlap the State confidence interval are considered "Higher" than the overall State percentage.

## APPENDIX 2: Influenza Vaccination Survey Questions, 2014-2015 Season

1. Background information (facility and survey respondent)
2. How many patients were residents or attendees at your facility between October 1, 2014 and March 31, 2015?
3. How many of the residents/attendees at your facility between October 1, 2014 and March 31, 2015 received a seasonal influenza vaccination (at your facility or elsewhere) for the 2014/15 season?
  - 3a. Total number of residents/attendees immunized against influenza for the 2014/15 season:
  - 3b. Total number of residents/attendees not immunized against influenza for the 2014/15 season:
4. How many of the residents/attendees at your facility between October 1, 2014 and March 31, 2015 had ever received a pneumococcal disease vaccination (at your facility or elsewhere)?
5. How many HCP worked or volunteered in your facility for at least one working day between October 1, 2014 and March 31, 2015?
6. How many HCP received a seasonal influenza vaccination (at your facility or elsewhere) for the 2014/15 season? Influenza vaccine for a given influenza season may be available as early as July or August. Include all immunized HCP that received the 2014/15 vaccine product, even if administered prior to October 1, 2014.
  - 6a. Total number of HCP immunized against influenza for the 2014/15 season:
  - 6b. Total number of HCP not immunized against influenza for the 2014/15 season:
7. Of the HCP not immunized against influenza for the 2014/15 influenza season, how many HCP did not receive the seasonal influenza vaccine for each of the following reasons (medical contraindications, religious, other (e.g., personal/philosophical), unknown)?
8. Does your facility have a seasonal influenza vaccination policy? Such a policy means that the facility requires all or some portion of HCPs working at that facility to receive a seasonal influenza vaccine. If NO, skip to item 13.
  - 8a. Yes, there is a policy currently in place
  - 8b. No, but we are considering a policy
  - 8c. No, and we are not considering a policy
  - 8d. Other
9. If your facility has a seasonal influenza vaccination policy, what reasons for exemption are acceptable (medical, religious, personal/philosophical, other)? Check all that apply.
10. If your facility has a seasonal influenza vaccination policy, what do you require of unvaccinated HCP with an acceptable reason for exemption (wear a mask, receive verbal and/or written education, other)? Check all that apply.

11. If your facility has a seasonal influenza vaccination policy, what are the potential consequences for unvaccinated HCP without an acceptable reason for exemption (wear a mask, progressive discipline, potentially including termination, receive verbal and/or written education, other)? Check all that apply.
12. If your facility has a seasonal influenza vaccination policy, how many people were terminated, suspended, resigned, or dismissed as a result of noncompliance with the policy during the 2014/15 influenza season?
13. Does your facility offer the high-dose influenza vaccine?
14. Please enter any comments you would like to share.

## APPENDIX 3: Preventing Healthcare-Associated Infections

### What You Can Do to Prevent Healthcare-Associated Infections

There are several prevention tips you can follow all the time to reduce your chance of getting an infection or spreading your infection to others.

1. Clean your hands.

- Use soap and warm water. Rub your hands really well for at least 15 seconds. Rub your palms, fingernails, in between your fingers, and the backs of your hands.
- If your hands do not look dirty, you can clean them with alcohol-based hand rub. Rub the sanitizer all over your hands, especially under your nails and between your fingers, until your hands are dry.
- Clean your hands before touching or eating food. Clean them after you use the bathroom, take out the trash, change a diaper, visit someone who is ill, or play with a pet.

2. Make sure healthcare providers clean their hands first, even if they wear gloves for a procedure.

- Doctors, nurses, dentists, and other healthcare providers come into contact with many bacteria and viruses. So if you do not see your healthcare provider wash their hands or use an alcohol-based hand rub before they treat you, ask them if they have cleaned their hands.
- Healthcare providers should wear clean gloves when they perform tasks such as taking throat cultures, pulling teeth, taking blood, touching wounds or body fluids, while suctioning tubes, and examining your mouth or genitalia. Don't be afraid to ask if they should wear gloves.

3. Cover your mouth and nose.

- Many diseases are spread through sneezes and coughs. When you sneeze or cough, the germs can travel 3 feet or more. Cover your mouth and nose to prevent the spread of infection to others.
- Use a tissue. Keep tissues handy at home, at work, and in your pocket. Be sure to throw away used tissues and clean your hands after coughing or sneezing.
- If you don't have a tissue, cover your mouth and nose with the bend of your elbow or hands. If you use your hands, clean them right away.

4. If you are sick, avoid close contact with others.

- If you are sick, stay away from other people or stay home. Don't shake hands or touch others.
- When you go for medical treatment, call ahead and ask if there is anything you can do to avoid infecting people in the waiting room.

5. Get vaccinations to avoid disease and fight the spread of infection.

- Make sure that your vaccinations are current—even for adults. Check with your doctor about shots you may need, including the seasonal influenza vaccination.

6. If you are prescribed an antibiotic for an illness, take them exactly as directed by your doctor.
  - Don't take half-doses or stop before you complete your prescribed course even if you feel better. Not taking them as directed can lead to infections that become resistant to antibiotics, making them more difficult to treat.

This information was adapted from materials developed by the Centers for Disease Control and Prevention (CDC), the Association for Professionals in Infection Control and Epidemiology (APIC), the Joint Commission, and Society of Healthcare Epidemiology of America (SHEA).

### **Other useful resources**

Access the New Hampshire Healthcare-Associated Infections (HAI) Program website for public reports, guidelines, and other materials at: <http://www.dhhs.nh.gov/dphs/cdcs/hai/index.htm>.

Learn more about vaccination at the New Hampshire Immunization Program website, specifically:

Adult vaccination campaign at: <http://www.dhhs.nh.gov/dphs/immunization/campaign.htm>

and Seasonal influenza at: <http://www.dhhs.nh.gov/dphs/cdcs/influenza/index.htm>.

For more information about HAI nationally and patient safety, visit the Centers for Disease Control and Prevention (CDC) website at: <http://www.cdc.gov/HAI/> and <http://www.cdc.gov/HAI/patientSafety/patient-safety.html>.

The Agency for Healthcare Quality and Research (AHRQ) has information for patients including care planning, diagnosis and treatment, and patient engagement. Visit their website at: <http://www.ahrq.gov/patients-consumers/index.html>.

The Society for Healthcare Epidemiology of America (SHEA) has several patient resources and guides. Visit their website at: <http://www.shea-online.org/Patients.aspx>.

The Association of Professionals in Infection Control and Epidemiology (APIC) have infographics, eCards, and a quiz about HAI. Visit their website to learn more: <http://consumers.site.apic.org/>.

To learn more about accreditation, certification and standards, visit the Joint Commission Website at: <http://www.jointcommission.org/>.



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