



**Healthcare Personnel Influenza Vaccination Report
2018-2019 Influenza Season
Interim Report
August 2020**

Approved by Marshall Taylor, Acting Agency Director

Foreword

The South Carolina Department of Health and Environmental Control (DHEC) submits the 2018-2019 Influenza Season Healthcare Personnel (HCP) Influenza Vaccination Report, which reflects the progress of implementing the South Carolina Hospital Infections Disclosure Act (HIDA). This document is submitted in compliance with S.C. Code Section 44-7-2430 and S.C. Code Section 44-7-2440.

DHEC gratefully acknowledges that the progress achieved through HIDA is possible only because of the combined efforts of hospital infection preventionists, the HIDA Advisory Committee, and DHEC staff members.

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INTRODUCTION

Healthcare personnel (HCP) are at risk of transmitting influenza to their patients, coworkers, and families if they become infected. The benefits of influenza vaccination among HCP and their patients, as well as lower rates of HCP absenteeism, are well documented.¹ There is a correlation between patient risk and HCP influenza vaccination rates; the lower the HCP vaccination rates, the higher the risk for patients.² Unfortunately, national influenza vaccination coverage in HCP remains low; a Centers for Disease Control and Prevention (CDC) survey conducted during the 2018-2019 influenza season, estimated influenza vaccination in HCP to be approximately 81.1%.¹

Steadily, more hospitals and healthcare facilities are requiring HCP influenza vaccination as a condition of employment and/or credentialing. In July of 2012, The Joint Commission established an infection control requirement for all Joint Commission-accredited organizations to establish an annual influenza vaccination program for all employees, including licensed independent practitioners and non-clinical staff.³ In addition to establishing a vaccination program, the Joint Commission expects organizations to implement an incremental vaccination goal to reach 90% coverage by the year 2020.³ Furthermore, influenza vaccine reporting is mandated under the South Carolina Hospital Infections Disclosure Act (HIDA). To reinforce these efforts and track progress toward achieving this goal, HCP influenza vaccination rates are reported by 65 acute care facilities, 6 long-term acute care (LTAC) facilities and 8 inpatient rehabilitation facilities (IRF) in South Carolina.

In this report, we present HCP influenza vaccination rates and policies for the 2018-2019 season. Additionally, vaccination trends for the past seven influenza seasons are reported.

METHODS

A total of 79 facilities were required to collect and report HCP influenza vaccination data from October 1, 2018 through March 31, 2019 for the South Carolina Hospital Infections Disclosure Act (HIDA) report. This information was self-reported by each facility through the Healthcare Personnel (HCP) Vaccination Module within the CDC National Healthcare Safety Network's (NHSN) Healthcare Personnel Safety Component.⁴ Though all 79 facilities reported into NHSN's HCP Vaccination Module, two of the state's facilities reported together, totaling 78 individual reports into NHSN. Facilities were required to follow standardized reporting definitions and methods as described in the NHSN Healthcare Personnel Safety Component Manual.⁴

Denominator data in NHSN consisted of HCPs who were physically present within the healthcare facility for at least one working day between October 1, 2018 and March 31, 2019.

Denominators were collected separately for the following healthcare personnel type:

- 1) *Employees*: includes all persons who receive a direct paycheck from the reporting facility (i.e. on the facility's payroll).
- 2) *Licensed Independent Practitioners (LIPs)*: includes physicians, advanced practice nurses, and physician assistants who were affiliated with the reporting facility but not directly employed by it. Post-residency fellows were also included in this category if they were not on the facility payroll.
- 3) *Adult students, trainees, and volunteers (ASTVs)*: includes medical, nursing, and other health professional students, interns, medical residents, and volunteers age 18 years or older who are affiliated with the healthcare facility.
- 4) *Other contract personnel (optional)*: includes persons providing care, treatment, or services at the facility through a contract which did not fall into one of the aforementioned categories. Data for this category is not included in this report.

Numerator data in NHSN consisted of HCP in each denominator HCP type, who were physically present within the healthcare facility for at least one working day between October 1, 2018 and March 31, 2019, and were:

1. Vaccinated, receiving an influenza vaccine administered at the healthcare facility,
2. Vaccinated, providing proof of receiving influenza vaccination elsewhere,
3. Unvaccinated, determined to have a medical contraindication,
4. Unvaccinated, were offered but declined influenza vaccination,
5. Unvaccinated, had unknown vaccination status or did not meet any of the above numerator categories.

HCP who received the influenza vaccine when it became available for the 2018-2019 influenza season and worked within the facility at least one day from October 1, 2018 through March 31, 2019, were included in the summary data counts. The following formula is used to calculate the vaccination rate as described in the results section of this report:

$$\text{Vaccination Rate} = (\text{Total Vaccinated} / \text{Total Working}) \times 100$$

Total vaccinated includes personnel:

- 1) Vaccinated, receiving an influenza vaccine administered at the healthcare facility,
- 2) Vaccinated, providing proof of receiving influenza vaccination elsewhere.

RESULTS

Influenza Vaccination Percentages by Facility and Healthcare Personnel Type

Table 1 displays influenza vaccination percentages for all HCP types for acute care facilities, long-term acute care facilities (LTAC), and inpatient rehabilitation facilities (IRF). Acute care, LTAC, and IRF had HCP influenza vaccination rates of 90.66%, 91.38% and 95.57%, respectively. The overall state influenza vaccination rate for all HCP at all facility types for the 2018-2019 influenza season was 90.76%.

Table 1. Influenza Vaccination Percentages for All* HCP by Facility Type, 2018 – 2019 Influenza Season

Facility Type	Personnel Vaccinated	Total Personnel	Percent Vaccinated
Acute Care	111,433	122,912	90.66%
LTAC	1,569	1,717	91.38%
IRF [§]	2,221	2,324	95.57%
STATE (All Facilities)	115,223	126,953	90.76%

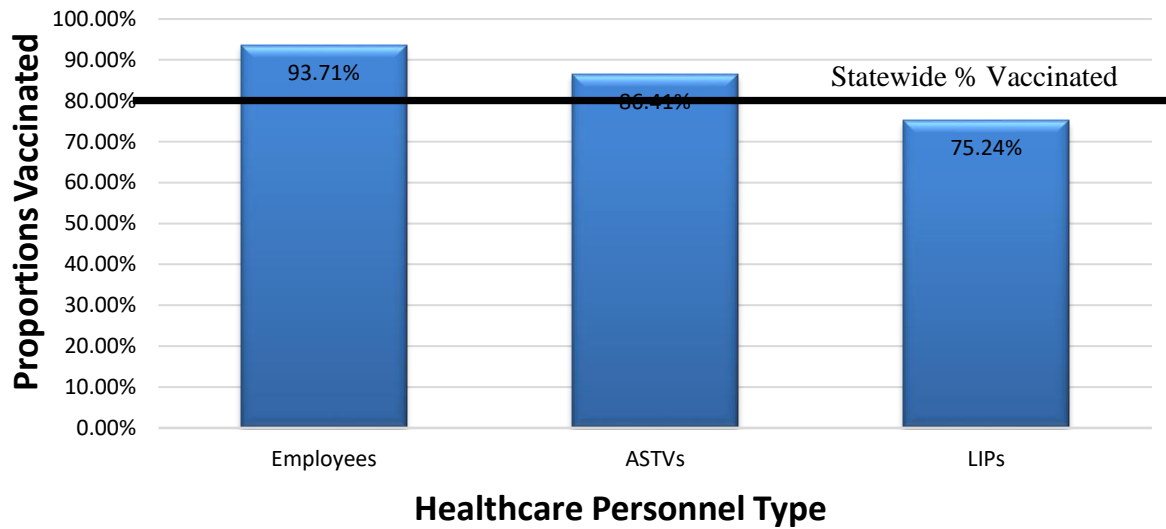
*All HCP = (Employees + LIPs+ ASTVs)

§IRF data in table reported by free standing IRFs only. IRF locations within acute care settings are included in the data presented for acute care facilities.

Figure 1 shows statewide influenza vaccination rates for HCP by personnel type.

Personnel type is stratified into the three categories as described in the methods section: (1) Employees, (2) Licensed Independent Practitioners (LIPs), and (3) Adult students, trainees, and volunteers (ASTVs). The overall state influenza vaccination rate is shown in black. Employees had the highest influenza vaccination rate at 93.71%, followed by ASTVs and LIPs at 86.41% and 75.24%, respectively.

Figure 1. Statewide Influenza Vaccination Rates for Healthcare Personnel by Type, 2018-2019 Season



Influenza Vaccination Policies for Healthcare Personnel

During the 2018-2019 influenza season, 67 facilities responded to the Healthcare Provider (HCP) Influenza Vaccination Seasonal Survey regarding their respective HCP influenza vaccination policies; however, two of these facilities combined their data when submitting to NHSN, resulting in 66 separate facility surveys for the 2018-2019 HCP Influenza Vaccination Seasonal Survey. Of those 66 facility surveys, 19 (28.79%) facilities required HCP influenza vaccination as a condition of both employment and credentialing, 12 (18.18%) facilities required influenza vaccination as a condition of employment only, 9 (13.64%) facilities required influenza vaccination as a condition of credentialing only, and 26 (39.39%) facilities did not require influenza vaccination as a condition of either employment or credentialing. The rates of influenza vaccination policies among the 66 HCP Influenza Vaccination Seasonal Surveys that were completed

by the 67 facilities are presented in figure 2.

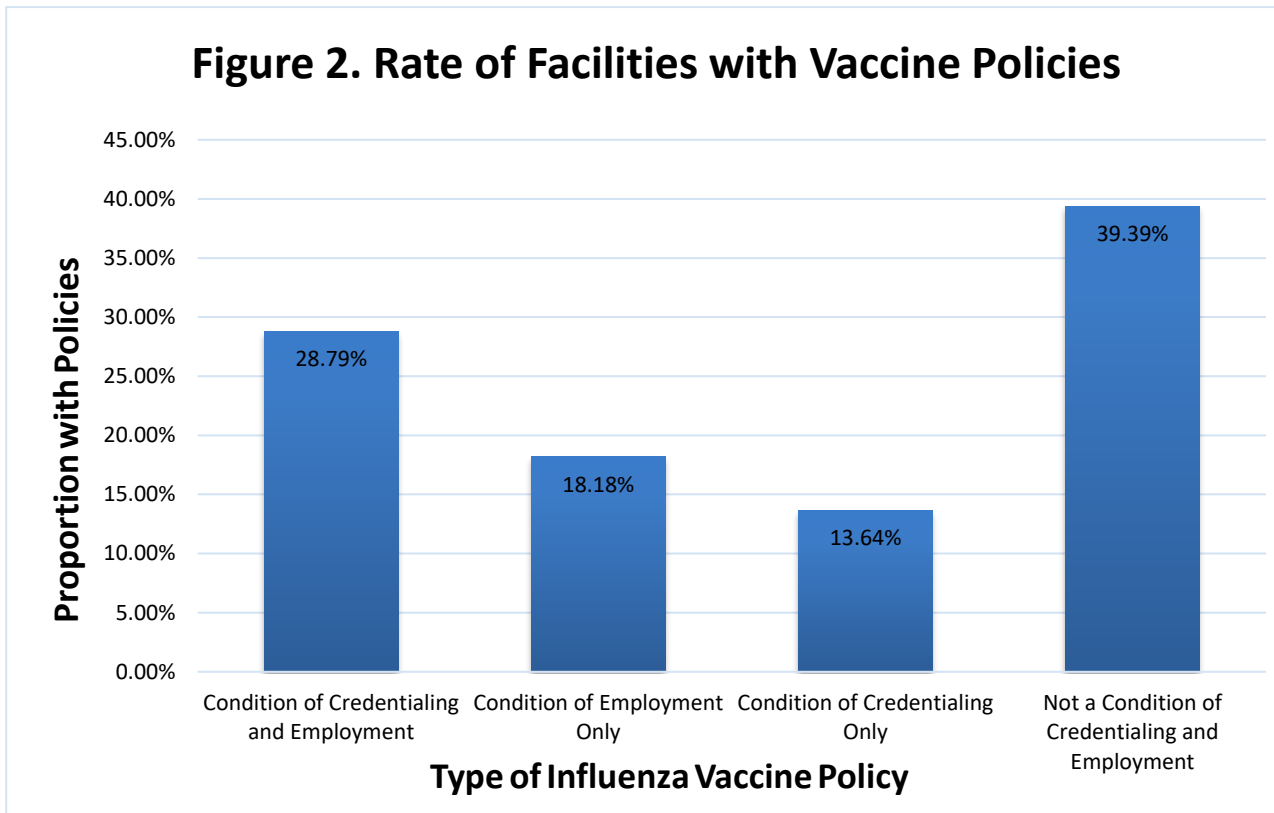
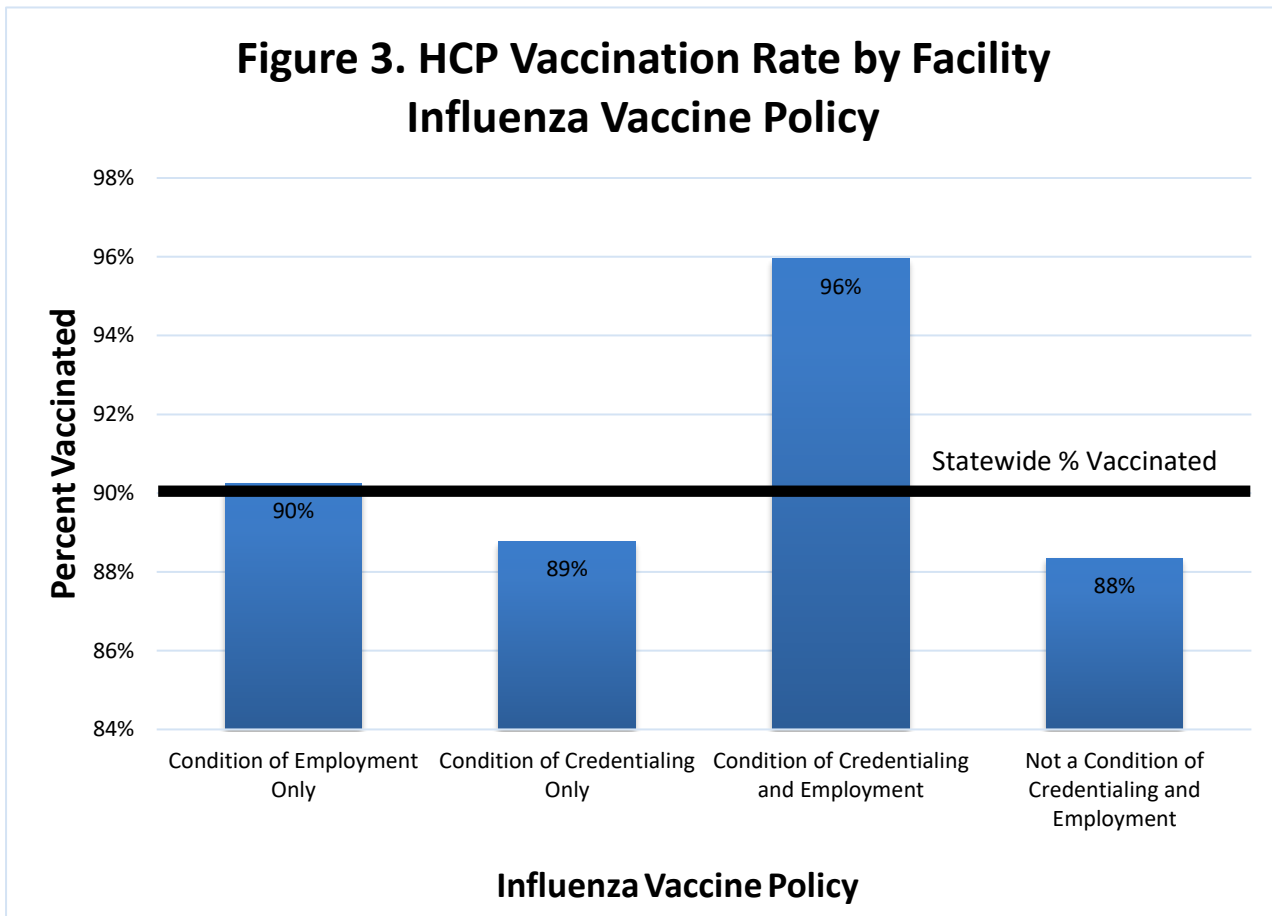


Figure 3 displays influenza vaccination rates for HCP working at facilities with and without influenza vaccination requirements. Influenza vaccination rates were higher among HCPs whose facilities reported influenza vaccination as a condition of employment and credentialing compared to the overall state influenza vaccination rate. Facilities that required vaccination of HCP as a condition of both credentialing and employment reported an average influenza vaccination rate of 96%, compared to the overall state rate of 90%. Facilities that required HCP influenza vaccination solely as a condition of employment had an average vaccination rate of 90% and facilities that required the HCP influenza vaccination only as a condition of credentialing had an average vaccination rate of 89%. HCP at facilities where the HCP influenza vaccination was not required for either

credentialing or employment had an average vaccination rate of 88%.



Of the 66 completed HCP Influenza Vaccination Seasonal Surveys for 2018-2019, 53 reported requiring the use of personal protective equipment (PPE) for staff that did not receive the influenza vaccine. Of the 53 facilities that reported requiring the use of PPE by un-vaccinated HCP, 13 were facilities that had classified vaccination as a condition of employment and credentialing, nine of them were facilities that classified vaccination as a condition of employment or credentialing, and 17 were facilities that did not consider vaccination as a condition of employment or credentialing.

Influenza Vaccination Rates by Facility

Table 2 shows the influenza vaccination percentages for all HCP at each reporting facility for the 2018-2019 influenza season. Of the 79 South Carolina facilities that reported influenza vaccination data in NHSN, there are only 78 facilities depicted in table 2 since two of these facilities combined their data when submitting to NHSN. Facility vaccination percentages ranged from 58% to 100%. Forty-nine facilities reported a higher overall HCP influenza vaccination rate compared to the overall state vaccination rate, while 28 facilities reported a lower overall HCP influenza vaccination rate compared to the overall state vaccination rate. One facility reported vaccination rates almost equal to the state vaccination rate.

Table 2. Influenza Vaccination Percentages for All Healthcare Personnel by Facility, 2018-2019 Influenza Season.

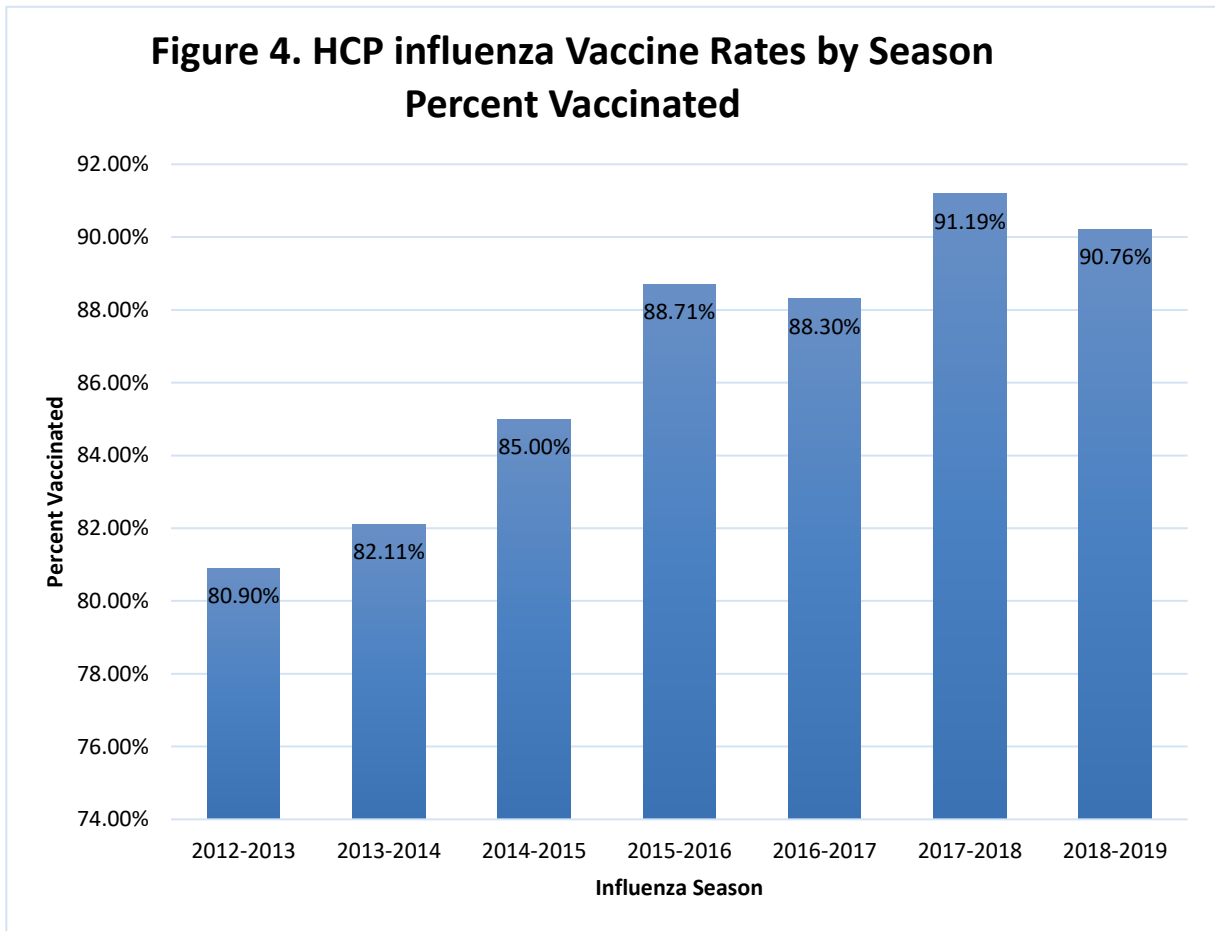
Facility Name	Total Vaccinated	Total # HCP	Vaccination %	Vaccine Rate Compared to State Average
Statewide Average	115,223	126,953	90.76%	.
Abbeville Area Medical Center	354	448	79%	Lower
Aiken Regional Medical Centers	1310	1374	95%	Higher
Allendale County Hospital	166	221	75%	Lower
AnMed Health	2635	2658	99%	Higher
AnMed Health Rehabilitation Hospital	303	316	96%	Higher
AnMed Health Women's and Children's Hospital	629	633	99%	Higher
Baptist Easley Hospital	641	660	97%	Higher
Beaufort Memorial Hospital	1874	2015	93%	Higher
Bon Secours St. Francis Eastside	1041	1113	94%	Higher
Bon Secours St. Francis Hospital - Downtown	2213	2432	91%	Higher
Bon-Secours St. Francis Xavier Hospital	1966	2380	83%	Lower
Cannon Memorial Hospital	388	389	100%	Higher
Carolina Pines Regional Medical Center	707	728	97%	Higher
Coastal Carolina Hospital	523	573	91%	Higher
Colleton Medical Center	574	668	86%	Lower
ContinueCARE Hospital at Prisma/Palmetto Health Baptist	128	129	99%	Higher
Conway Medical Center	1358	2027	67%	Lower
East Cooper Medical Center	869	909	96%	Higher
Edgefield County Hospital	194	221	88%	Lower

Facility Name	Total Vaccinated	Total # HCP	Vaccination %	Vaccine Rate Compared to State Average
Encompass Health Rehabilitation Hospital of Florence	251	272	92%	Higher
Encompass Rehabilitation Hospital of Charleston	405	412	98%	Higher
Encompass Rehabilitation Hospital of Columbia	452	462	98%	Higher
Encompass Rehabilitation Hospital of Rock Hill	204	215	95%	Higher
Grand Strand Regional Medical Center	2160	2340	92%	Higher
Greenville Memorial Hospital	13671	13806	99%	Higher
Greenwood Regional Rehabilitation Hospital	206	209	99%	Higher
Greer Memorial Hospital	842	854	99%	Higher
Hampton Regional Medical Center	225	255	88%	Lower
Hillcrest Memorial Hospital	650	655	99%	Higher
Hilton Head Hospital Regional Medical Center	735	748	98%	Higher
Kershaw Health Medical Center	929	939	99%	Higher
Lake City Community Hospital	284	347	82%	Lower
Lexington Medical Center	4269	6155	69%	Lower
Mary Black Health System Gaffney/Cherokee Medical Center	369	533	69%	Lower
McLeod Health Cheraw	329	388	85%	Lower
McLeod Health Clarendon	548	747	73%	Lower
McLeod Loris	645	921	70%	Lower
McLeod Medical Center - Darlington	130	139	94%	Higher
McLeod Medical Center - Dillon	446	493	90%	Same
McLeod Regional Medical Center	6013	6867	88%	Lower
McLeod Seacoast	617	694	89%	Lower
Medical University Hospital Authority (MUSC)	11523	11935	97%	Higher
Mount Pleasant Hospital	1257	1657	76%	Lower
MUSC Health Chester Medical Center	230	254	91%	Higher
MUSC Health Florence Medical Center & Women's Pavilion	1519	1699	89%	Lower
MUSC Health Florence Rehabilitation Center	217	237	92%	Higher
MUSC Health Lancaster Medical Center	789	1047	75%	Lower
MUSC Health Marion Medical Center	373	444	84%	Lower
Newberry County Hospital	648	654	99%	Higher
North Greenville Long Term Acute Care Hospital	237	246	96%	Higher
Oconee Medical Center	1330	1343	99%	Higher
Patewood Memorial Hospital	2033	2057	99%	Higher
Pelham Medical Center	915	1008	91%	Higher
Piedmont Medical Center	2493	2531	98%	Higher
Prisma Health Richland	7613	7716	99%	Higher
Prisma health TOUMEY Hospital	1796	1855	97%	Higher

Facility Name	Total Vaccinated	Total # HCP	Vaccination %	Vaccine Rate Compared to State Average
Prisma Health-Upstate Laurens County Hospital	450	456	99%	Higher
Prisma/Palmetto Health Baptist	3785	3833	99%	Higher
Prisma/Palmetto Health Baptist Parkridge	1154	1170	99%	Higher
Providence Hospitals NE	285	412	69%	Lower
Regency Hospital of Florence	169	183	92%	Higher
Regency Hospital of Greenville	220	258	85%	Lower
Regional Medical Center of Orangeburg and Calhoun Counties (RMC)	1923	2243	86%	Lower
Roper Hospital	2925	3353	87%	Lower
Self-Regional Healthcare	3018	3049	99%	Higher
Shriners Hospitals for Children---Greenville	358	362	99%	Higher
Sisters of Charity Providence Hospitals Downtown	1018	1745	58%	Lower
Spartanburg Hospital for Restorative Care	484	542	89%	Lower
Spartanburg Medical Center	5930	6853	87%	Lower
Spartanburg Medical Center Mary Black Campus	1002	1419	71%	Lower
Spartanburg Rehabilitation Institute	183	201	91%	Higher
Summerville Medical Center	829	883	94%	Higher
Tidelands Georgetown Memorial hospital	1351	1473	92%	Higher
Tidelands Waccamaw Community Hospital	1243	1368	91%	Higher
Trident Medical Center	2660	3040	88%	Lower
Union Medical Center	399	419	95%	Higher
Vibra Hospital of Charleston	331	359	92%	Higher
Williamsburg Regional Hospital	280	304	92%	Higher

Past Influenza Vaccination Rates

Figure 4 provides a snapshot of HCP statewide vaccination rates over the past seven influenza seasons. South Carolina has experienced a 12.18 percent improvement in HCP vaccination rates since the 2012-2013 season.



CONCLUSIONS

This report presents South Carolina HCP influenza vaccination surveillance data by facility and healthcare personnel type for the 2018-2019 influenza season. The information gathered in this report is self-reported by each facility and has not been validated by the South Carolina Department of Health and Environmental Control.

Key Findings:

- All HIDA reporting facilities in South Carolina complied with the HAI mandatory reporting requirement to report HCP influenza vaccination summary data for the 2018-2019 influenza season. All reported data were submitted to the Healthcare Personnel Vaccination Module within the NHSN Healthcare Personnel Safety Component.
- Vaccination rates for all HCP types by facility during the 2018-2019 influenza season ranged from 58% to 100%. The overall state influenza vaccination rate for all HCP types was 90.76%, a slight decrease from 91.13% in 2017-2018. Acute care facilities, LTAC facilities, and IRFs reported influenza vaccination rates of 90.66%, 91.38% and 95.57%, respectively.
- When compared to the overall state influenza vaccination rate, ASTVs and LIPs rates are lower, at 86.41% and 75.24%, respectively. It is important to note that ASTV and LIP rates may be underreported due to barriers in capturing the vaccination statuses of these healthcare personnel by facility's employee health departments.
- Sixty-seven facilities had conditional influenza vaccination policies regarding employment and/or credentialing for healthcare personnel during the 2018-2019 influenza season. Of the 67 facilities that completed the HCP Influenza Vaccination Seasonal Survey, 19 (28.79%) facilities required HCP influenza vaccination as a condition of both employment and credentialing, 12 (18.18%) facilities required vaccination as a condition of employment only, and 9 (13.64%) facilities required vaccination as a condition of credentialing only. These numbers depict significant decreases from 43.55%, 61.61% and 50.00% in 2017-2018, respectively. Twenty-six

(39.39%) facilities did not require vaccination as a condition of employment or credentialing.

Limitations:

There are several limitations of the data presented in this report. The first limitation is the lack of information regarding vaccination campaigns/incentives within hospitals. Although hospitals may not require mandatory influenza vaccines for employment and/or credentialing, it is possible that they have active influenza vaccination campaigns. These campaigns may even incentivize employees to receive the influenza vaccine. Information regarding incentives and educational campaigns are not considered for this report.

The second limitation is the variety of data collection methods within each facility. Hospitals rely on different employees (e.g., employee health nurses, infection preventionists, education department personnel, and/or volunteer departments) to track vaccination numbers and gather data. The methods of tracking these vaccination numbers may differ based on the type of employee recording the data. Other facilities may not have the staff capacity to feasibly assign a staff member to track influenza vaccination data onsite or follow up with employees that were vaccinated offsite. These methods or lack of methods are not considered for this report.

Finally, this report reflects HCP influenza vaccine rates in acute care and critical access hospitals, IRFs, and LTACs. Information regarding outpatient providers and long-term care or skilled nursing facilities is not reflected in this data.

Despite limitations, this report provides an invaluable view into HCP influenza vaccination data which can be used by healthcare facilities for improvement in their HCP influenza vaccination rates. The data in this report also allows healthcare consumers to make informed decisions when selecting healthcare providers in South Carolina.

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