



DELAWARE HEALTH AND SOCIAL SERVICES

Division of Public Health

**Influenza Vaccination Rates among Healthcare Personnel in
Delaware Acute Care Hospitals for the
2018-2019 Influenza Season**

Delaware Health and Social Services
Division of Public Health
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Introduction

The Advisory Committee on Immunization Practices (ACIP) recommends that all healthcare personnel and persons in training for healthcare professions should be vaccinated annually against influenza.¹ Persons who are infected with influenza virus can transmit the virus to others, particularly those who are at high risk for complications from influenza (e.g., elderly, immunocompromised, etc.). Vaccination of working age adults, including healthcare personnel, has been associated with reduced risk of influenza illness and reduced work absenteeism. Also, vaccination of healthcare personnel has been shown to reduce deaths among nursing home patients and elderly hospitalized patients.² The Healthy People 2020 (HP2020) goal for healthcare personnel influenza vaccination in the United States is 90% (i.e., 90% of healthcare personnel in every facility receive the influenza vaccine).³

As with healthcare-associated infections (HAI) outcome measures, showing facility-specific healthcare personnel influenza vaccination percentages may influence performance and encourage facilities with lower vaccination percentages to improve their vaccination efforts.

Methods

Healthcare personnel comprise the following four categories regardless of full-time/part-time status or patient contact:

- (1) **Employees:** This includes all persons who receive a direct paycheck from the reporting facility (i.e., on the facility's payroll), regardless of clinical responsibility or patient contact.
- (2) **Licensed independent practitioners (LIPs):** This includes physicians (MD, DO), advanced practice nurses, and physician assistants who are affiliated with the reporting facility, but are not directly employed by it (i.e., they do not receive a paycheck from the facility), regardless of clinical responsibility or patient contact. Post-residency fellows are also included in this category if they are not on the facility's payroll.
- (3) **Adult students/trainees and volunteers:** This includes medical, nursing, or other health professional students, interns, medical residents, or volunteers aged 18 or older who are affiliated with the healthcare facility, but are not directly employed by it (i.e., they do not receive a paycheck from the facility), regardless of clinical responsibility or patient contact.
- (4) **Other contract personnel (optional):** Facilities may also report on individuals who are contract personnel. However, reporting for this category is optional at this time. Contract personnel are defined as persons providing care, treatment or services at the facility through a contract who do not fall into any of the above-mentioned denominator categories.

The healthcare personnel vaccination rate for the 2018-2019 season is calculated as:

Denominator: Number of healthcare personnel who meet the criteria above and were physically present in the healthcare facility for at least one working day between October 1, 2018, and March 31, 2019 (i.e., the measure reporting period). Prior to the 2014-2015 season, the requirement was that the healthcare worker had to be physically present for at least 30 working days during the measure reporting period.'

Numerator: Number of healthcare personnel from the denominator population who received the influenza vaccine during the time from when the vaccine became available (e.g., August or September, 2018) through

¹ Centers for Disease Control and Prevention. "Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009." MMWR 58, no. Early Release (2009):1-52.

² Centers for Disease Control and Prevention. Healthcare Personnel Vaccination Module: Influenza Vaccination Summary <http://www.cdc.gov/nhsn/pdfs/hps-manual/vaccination/4-hcp-vaccination-module.pdf>

³ Healthy People 2020 Goal: <http://www.healthypeople.gov/2020/topicsobjectives/topic/immunization-and-infectious-diseases/objectives>

March 31, 2019. The healthcare personnel either had to receive the vaccine at the healthcare facility or provide attestation of influenza vaccination outside of the healthcare facility to be included in the numerator. Although data are available for four healthcare personnel groups, CDC’s recommendation is to present a total vaccination percentage inclusive of all healthcare personnel by healthcare facility.

Comparison Group

CDC recommends using the HP2020 goal for healthcare personnel influenza vaccination of 90 percent as the standard against which each facility’s vaccination rate should be compared. Since this benchmark stays standard from year to year, each facility can show progress towards a goal that is shared among all states in the nation.

Results

During the 2018-2019 influenza season, Delaware’s average vaccination rate for healthcare personnel in the eight acute care hospitals was 94.3 percent, 4.3 percent higher than the HP2020 goal of 90 percent (Table 1). Vaccination rates ranged from 88.7 percent (St. Francis Healthcare) to 97.5 percent (Nanticoke Memorial), with seven of eight hospitals exceeding the HP 2020 goal (Nanticoke Memorial, Milford Memorial - Bayhealth, Al DuPont Hospital for Children, Beebe Healthcare, Kent General - Bayhealth, Wilmington Hospital and Christiana Hospital). Delaware’s overall rate for 2018-2019 (90.5 percent) was a marked improvement of 4.2 percent over the rate for the 2017-2018 season (Figure 1).

Table 1. Numbers of Healthcare Personnel (HCP) and Influenza Vaccination Rates for Delaware Acute Care Hospitals; 2018 – 2019 Influenza Season*

Acute Care Hospital	Number HCP	Percent and Number Vaccinated
Nemours Al duPont Hospital for Children	6,007	96.3% 5,782
Beebe Healthcare	3,636	95.5% 3,472
Christiana Hospital, CCHS*	11,671	92.5% 10,799
Kent General, Bayhealth	4,672	94.6% 4,422
Milford Memorial, Bayhealth	2,205	97.2% 2,143
Nanticoke Memorial Hospital	1,453	97.5% 1,416
St. Francis Healthcare	1,775	88.7% 1,575
Wilmington Hospital, CCHS*	5,788	94.4% 5,461
ALL HOSPITALS	37,207	94.3% 35,070

Note: Data were generated through CDC’s National Safety Healthcare Network (NHSN) on May 29, 2019.

* CCHS – Christiana Care Health System

In Figure 1 are healthcare personnel vaccination rates by acute care hospital for five influenza seasons, 2014-2015 through 2018-2019. Seven of the eight acute care hospitals showed an improved vaccination rate from the 2017-2018 to the 2018-2019 season. St. Francis Healthcare and Wilmington Hospital showed the most improvement, with 3.9 and 2.8 percent, respectively.

Figure 1. Influenza Vaccination Rates among Healthcare Personnel by Delaware Hospital, for Influenza Seasons 2014-2015 to 2018-2019 Compared with HP2020 Goal of 90 Percent

