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Massachusetts Healthcare Personnel Influenza Vaccination in Health Care Facilities

2015-2016 Influenza Season

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Presentation Overview

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Background

Health care personnel (HCP) are at high risk for influenza exposure and illness, and may be a source of influenza virus transmission in health care settings.

Annual immunization is the best method of preventing influenza and potentially serious complications.\*

The Massachusetts Department of Public Health (DPH) considers the prevention of influenza by promoting vaccination an organizational priority that should be part of the overall institutional commitment to improvement for licensed healthcare facilities.

\*https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm

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Background

As a condition of licensure, DPH regulations require health care facilities, including hospitals, ambulatory surgical centers, dialysis centers, clinics, nursing homes, rest homes, and adult day health programs to:

Offer free-of-charge, annual influenza vaccine to all personnel (full and part-time employees, contracted employees, volunteers, house staff and students);

Document receipt of influenza vaccine administered within and outside the facility or document the declination of immunization for HCP; and

Report information to DPH documenting compliance with the vaccination requirement, in accordance with reporting and data collection guidelines of the Commissioner (105 CMR.)

105 CMR 130.325, 105 CMR 140.150, 105 CMR 150.002(D)(8), 105 CMR 158.030(L)(8)

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Performance Goal

To protect the lives and welfare of patients, employees, and communities, as well as to improve quality and reduce healthcare costs, DPH has established an overall minimum influenza vaccination rate of 90% or greater for eligible HCP at all licensed healthcare facilities.

This performance goal is intended to advance patient and HCP health and safety by ensuring optimal HCP influenza vaccination coverage, and is in alignment with the National Healthy People 2020 target of 90% influenza vaccination coverage of HCP.

<https://www.healthypeople.gov/node/4668/data_details>

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Methodology

Health Care Facilities report HCP influenza vaccination rates to DPH in two ways:

Consistent with the Centers for Medicare & Medicaid Services (CMS) Quality Reporting Programs, DPH requires acute care hospitals, ambulatory surgical centers, dialysis centers and non-acute hospitals to report health care personnel influenza data through the National Healthcare Safety Network (NHSN) of the Centers for Disease Control and Prevention (CDC).

Clinics, nursing homes, rest homes, and adult day health programs are required to report health care personnel influenza data directly to the DPH Healthcare Associated Infection (HAI) Prevention Program.

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NHSN Methodology  
Acute Care Hospitals, Ambulatory Surgical Centers, Dialysis Centers and Non-acute Hospitals

NHSN requires facilities to provide the number of HCP physically at the facility for one or more days between October 1 and March 31 of the influenza season for each of the following three categories:

Employees on facility payroll;

Licensed independent practitioners; and

Students/trainees and volunteers

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NHSN Reporting Requirements  
Acute Care Hospitals, Ambulatory Surgical Centers, Dialysis Centers and Non-acute Hospitals

For each category of HCP, for the period October 1, 2015 to March 31, 2016, facilities must collect and report the number of:

HCP vaccinated at the facility;

HCP vaccinated elsewhere (PCP office, pharmacy, etc.);

HCP that declined vaccine;

HCP with a medical contraindication to the vaccine; and

HCP with unknown vaccine status

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NHSN Measures  
Acute Care Hospitals, Ambulatory Surgical Centers, Dialysis Centers and Non-acute Hospitals

Calculated aggregate percentage for all HCP across Massachusetts acute care hospitals, ambulatory surgical centers, dialysis facilities and non-acute hospitals.

Percentage HCP vaccinated in 2015-2016

Vaccine Coverage equals HCP vaccinated at facility plus HCP vaccinated elsewhere divided by the total number of HCP at the facility

Percentage HCP in facility that declined vaccine in 2015-2016

Vaccine declination equals HCP declined vaccine divided by the total number of HCP at the facility

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NHSN Measures  
Acute Care Hospitals, Ambulatory Surgical Centers, Dialysis Centers and Non-acute Hospitals

Percentage HCP in facility with a medical contraindication to vaccine in 2015-2016

Medical contraindications equal the number of HCP with a medical contraindication divided by the total number of HCP at the facility

Percentage HCP in facility with unknown influenza vaccine status in 2015-2016

Unknown vaccine status equals the number of HCP with unknown vaccine status divided by the total number of HCP at the facility

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Clinic, Nursing Home, Rest Home, and Adult Day Health Program Measures

Facilities are required to report directly to DPH by May 15, 2016:

Total number of employees as of December 31, 2015;

Total number of employees receiving seasonal influenza vaccination provided by the health care facility between August 1, 2015 and March 31, 2016;

Total number of employees receiving seasonal influenza vaccination administered outside the health care facility between August 1, 2015 and March 31, 2016; and

Total number of employees who declined vaccination between August 1, 2015 and March 31, 2016.

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Clinic, Nursing Home, Rest Home, and Adult Day Health Center Methodology

The facility vaccination rate was calculated by dividing the number of facility HCPs vaccinated by the total number of facility HCPs.

Vaccine Coverage equals the HCP Vaccinated at Facility plus HCP Vaccinated Elsewhere divided by the total number of healthcare personnel

The overall mean percentage of HCPs vaccinated by facility type was calculated as the mean of all facility vaccination rates.

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Median and Range of HCP Influenza Vaccine Coverage at Massachusetts Acute Care Hospitals 2015-16

Key Findings: the statewide median for vaccine coverage was 92% 39 (53%) facilities achieved vaccine coverage of 90% or greater. Most HCP were vaccinated at their workplace Median declination was only 4%.

Total unvaccinated 92%; vaccinated at facility: 65%; vaccinated elseware: 26%; declined vaccine: 4%; unknown statue 2%; medical contraindication 1%

N=74 acute care hospitals.

\*Median and range are measures of HCP vaccine coverage by reporting MA acute care hospitals, not state aggregate rates for HCP

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Acute Care Hospital Healthcare Personnel Vaccine Coverage in Aggregate

Mean State Aggregate HCP Vaccine Coverage and Range

Total HCP Vaccinated: 231,727 (91%) Range: 71 - 99%

Vaccinated at Facility: 173,121 (68%) Range: (41 - 89%)

Vaccinated Elsewhere: 58,606 (23%) Range: (3 - 45%)

HCP Declined Vaccination 14,122 (5%) Range (0 - 17%)

HCP with Unknown Vaccination Status: 7,946 (3%) Range (0 - 26%)

HCP with a Medical Contraindication: 1,653 (1%) Range (0 - 2%)

Please note the median is the midpoint of the distribution of each measure at MA acute care hospitals. The medians will not necessarily sum to 100%.

Median and range are measures of HCP vaccine coverage by reporting MA acute care hospitals, not state average for vaccinated HCP

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Overall HCP Influenza Vaccine Coverage in Massachusetts ACHs by HCP Type

Key Findings

Overall, salaried employees were most likely to decline vaccine when compared to other HCP types. This may be partially explained by salaried employees having the most complete reporting.

Licensed Independent Practitioners were most likely to have unknown vaccine status.

Graph depicting:

All HCP 91%; declination 5%: medical contraindication 1% and unknown 3%

Salaried employees: All 91%; declination 6%; medical contraindication 1% and unknown 2%

Licensed independent practitioner: All 89%; declination 1%; medical contraindication 1& and unknown 9%.

Student or volunteer: All 92%; declination 3%; medical contraindication 0% and unknown 5%

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Graph illustrating Trends Over Time Acute Care Hospitals

Median HCP vaccine coverage remained steady in 2015-16 and met the Healthy People 2020 benchmark of 90%. The median declination rate decreased to 4% in 2015-16. This reporting year shows a continued decrease in median declination and unknown categories since data collection began in the 2008-09 season

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2015-2016 Results: Ambulatory Surgical Centers

Mean percentage of HCP at Ambulatory Surgical Centers Vaccinated against Influenza during 2015-2016 season

Total vaccinated 82% Range: 22-100%

Vaccine Declination rate: 14% Range 0-77%

HCP with unknown vaccination status: 2% Range 0-77%

HCP with Medical Contraindication: 1% Range 0-9%

Location Vaccinated

At place of employment: 45% Range 0-93%

Outside place of employment: 37% Range 0-90%

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2015-2016 Results: Ambulatory Surgical Centers

Graph describing Overall Ambulatory Surgical Center Vaccination of HCP by Personnel Category

All HCP 85%; declination 11%: medical contraindication 1% and unknown 2%

Salaried employees: All 80%; declination 18%; medical contraindication 1% and unknown 1%

Licensed independent practitioner: All 90%; declination 5%; medical contraindication 1% and unknown 4%.

Student or volunteer: All 95%; declination 2%; medical contraindication 0% and unknown 3%

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2015-2016 Results: Dialysis Centers

Mean Percent of Dialysis Center HCP Vaccinated against Influenza during the 2015-2016 Season

Total vaccinated: 86% Range 20-100%

Vaccination Declination Rate: 10% Range 0-50%

HCP with unknown vaccination status: 4% Range 0-30%

HCP with Medical Contraindication: 1% Range 0-5%

Location vaccinated:

At place of Employment: 59% Range 0-90%

Outside place of employment: 28% Range 0-100%

N=57 reporting facilities

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Graph illustrating overall dialysis center vaccination of HCP by personnel category

All HCP 87%; declination 9%: medical contraindication 1% and unknown 4%

Salaried employees: All 87%; declination 10%; medical contraindication 1% and unknown 3%

Licensed independent practitioner: All 89%; declination <1%; medical contraindication 10% and unknown 0%.

Student or volunteer: All 86%; declination 14%; medical contraindication 0% and unknown 0%

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2015-2016 Results Non-Acute Care Hospitals

Mean Percent of Non-Acute Care Hospital HCP Vaccinated against Influenza during the 2015-2016 Season

Total Vaccinated 78% Range 49-98%

Vaccination Declination rate: 13% Range 0-38%

HCP with unknown vaccination status: 9% Range 0-33%

HCP with medical contraindication: 1% Range 0-6%

Location vaccinated

At place of employment: 53% Range 20-77%

Outside place of employment: 25% Range 0-50%

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2015-2016 Results: Non-Acute Care Hospitals

Overall Non-Acute Care Hospital Vaccination of HCP by Personnel Category

All HCP 78%; declination 12%: medical contraindication 1% and unknown 9%

Salaried employees: All 78%; declination 13%; medical contraindication 1% and unknown 8%

Licensed independent practitioner: All 72%; declination 6%; medical contraindication 1% and unknown 2%.

Student or volunteer: All 83%; declination 5%; medical contraindication <1% and unknown 11%

N=36

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Trends over Time: ASCs, Dialysis Centers and Non-Acute Hospitals

Graph illustrating the Mean Percent of HCP Vaccination and Declination Rates for Ambulatory Surgical Centers, Dialysis Centers and Non-Acute Hospitals: 2011-2016 Influenza Season

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2015-2016 Results: Clinics

Mean Percent of Clinic HCP Vaccinated against Influenza during the 2015-2016 Season

Total Vaccinated: 66% Range: 0-118%

Total exceptions\*: 31% Range 0-1--%

Location vaccinated: at Place of Employment: 31% Range 0-100%; outside place of employment 35% Range 0-118%

N=142 Reporting Facilities

\*Total exceptions may include declination, medical contraindications or religious exemption.

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2015-2016 Results: Nursing Homes

Mean Percent of Nursing Home HCP Vaccinated Against Influenza during the 2015-2016 Season

Total vaccinated: 73% range 0-108%

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2015-2016 Results: Rest Homes

Mean Percent of Rest Home HCP Vaccinated Against Influenza during the 2015-2016 Season

Total vaccinated: 76% Range 0-100%

Total exceptions\*: 26% range 0-58%

Location vaccinated

At place of employment: 26% range 0-100%

Outside place of employment: 40% range 0-97%

N=32 Reporting Facilities.

\*Total exceptions may include declination, medical contraindications or religious exemption.

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2015-2016 Results: Adult Day Health Programs

Mean Percent of Adult Day Health HCP Vaccinated against Influenza during the 2015-2016 Season

Total vaccinated: 63% Range 0-113%

Total Exceptions\*: 39% Range 0-100%

Location vaccinated:

At place of employment: 33% Range 0-113%

Outside place of employment: 30% range 0-100%

N=114 Reporting Facilities

\*Total exceptions may include declination, medical contraindications or religious exemption

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Trends over Time: Clinics, Nursing Homes, Rest Homes and Adult Day Health Programs

Graph illustrating Mean Percent of HCP Influenza Vaccinations and Declinations as Reported by Massachusetts Clinics, Nursing Homes, Rest Homes and Adult Day Health Programs: 2011-2016 Seasons

2015-2016 Season was the first year Adult Day Health Programs were required to report.

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All facility types have reported higher vaccination rates in 2015-2016 when compared to 2011-2012 season.

Overall ACH vaccine coverage exceeds the DPH and Healthy People 2020 benchmark for the second consecutive year.

No other facility type reached the established overall performance goal.

The range of vaccine coverage varies widely.

Transitioning the required reporting to the CDC’s National Healthcare Safety Network will result in improved capacity to track, monitor and report HCP influenza data in Massachusetts health care facilities.

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Enhanced Public Health Actions

DPH will continue to monitor trends and report annual compliance with the HCP influenza vaccination requirements.

DPH will promote continuous quality improvement, and recommend licensed facilities share vaccination rates with all staff, including administrators, boards of directors, practice managers, ombudsperson and patient/family councils.

DPH hosted an acute care hospital HCP Influenza Summit in January 2016.

DPH will use lessons learned to foster improvement in facilities new to reporting.

DPH presented the 2015-16 nursing home findings at a Massachusetts Senior Care Association meeting of over 300 participants in December 2016 and emphasized the importance of vaccination as well as tools to increase adherence.

DPH encourages facilities to review reported data and current HCP influenza policies, and as necessary implement processes to maximize vaccination coverage.

DPH will promote the DPH and Healthy People 2020 target to vaccinate 90% or greater of eligible HCP in all licensed health care settings.

DPH will collaborate with public health partners to intensify efforts to improve immunization rates among HCP, especially among low outliers.