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Massachusetts Healthcare Personnel Influenza Vaccination in Health Care Facilities 2017-2018 Influenza Season

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

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

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

For each category of HCP, for the period October 1, 2017 to March 31, 2018**,** 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 2017-2018

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 2017-2018

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 2017-2018

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 2017-2018

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 via online survey by April 15, 2018:

Number of healthcare facility employees who worked at this healthcare facility for at least 1 day between October 1, 2017 and March 31, 2018;

Total number of employees receiving seasonal influenza vaccination provided by the health care facility between August 1, 2017 and March 31, 2018;

Total number of employees receiving seasonal influenza vaccination administered outside the health care facility between August 1, 2017 and March 31, 2018;

Total number of employees who reported medical contraindications to flu vaccination between August 1, 2017 and March 31, 2018;

Total number of employees who declined vaccination between August 1, 2017 and March 31, 2018; and

Total number of employees with unknown vaccination status between August 1, 2017 and March 31, 2018.

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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.

Percentage HCP vaccinated in 2017-2018

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 2017-2018

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

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Median and Range of HCP Influenza Vaccine Coverage at Massachusetts Acute Care Hospitals 2017-18

Key Findings

The statewide median for vaccine coverage was 94%

56 (78%) facilities achieved vaccine coverage of 90% or greater

Most HCP were vaccinated at their workplace

Median declination was only 4%

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Acute Care Hospital Healthcare Personnel Vaccine Coverage in Aggregate

Mean State Aggregate HCP Vaccine Coverage and Range

Total HCP Vaccinated: 249,224 (93%) Range: 75 - 99%

Vaccinated at Facility: 180,468 (72%) Range: (38-82%)

Vaccinated Elsewhere: 68,756(28%) Range: (11-58%)

HCP Declined Vaccination: 11, 367 (4%) Range (0 - 18%)

HCP with Unknown Vaccination Status: 6939 (2%) Range (0 - 12%)

HCP with a Medical Contraindication: 1411 (1%) Range (0-2%)

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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.

Both Licensed Independent Practitioners and Students or Volunteers were most likely to have unknown vaccine status.

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Trends Over Time Acute Care Hospitals

Median HCP vaccine coverage remained constant in 2017-18 and met the Healthy People 2020 benchmark of 90%. The median declination rate remained 4% in 2017-18.

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2017-2018 Results: Ambulatory Surgical Centers

Mean percentage of HCP at Ambulatory Surgical Centers Vaccinated against Influenza During 2017-2018 season

Total vaccinated 83% Range: 38-100%

Vaccine Declination rate: 12% Range 0-62%

HCP with unknown vaccination status: 4% Range 0-5%

HCP with Medical Contraindication: 2% Range 0-10%

Location Vaccinated

At place of employment: 46% Range 0-97%

Outside place of employment: 37% Range 0-100%

N=48 reporting ASCs.

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2017-2018 Results: Ambulatory Surgical Centers

Overall Ambulatory Surgical Center Vaccination of HCP by Personnel Category

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

All HCP 81%; declination 10%: medical contraindication 2% and unknown 7%

Salaried employees: All 81%; declination 15%; medical contraindication 2% and unknown 2%

Licensed independent practitioner: All 80%; declination 6%; medical contraindication 2% and unknown 13%.

Student or volunteer: 100%

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2017-2018 Results: Dialysis Centers

Mean Percent of Dialysis Center HCP Vaccinated against Influenza during the 2017-2017 Season

Total vaccinated: 86% Range 50-100%

Vaccination Declination Rate: 8% Range 0-42%

HCP with unknown vaccination status: 5% Range 0-34%

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

Location vaccinated:

At place of Employment: 60% Range 11-100%

Outside place of employment: 26% Range 0-60%

N=71 Reporting Facilities

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2017-2018 Results: Dialysis Centers

Graph illustrating overall dialysis center vaccination of HCP by personnel category

All HCP 87%; declination 8%: medical contraindication 1% and unknown 4%

Salaried employees: All 86%; declination 10%; medical contraindication 1% and unknown 3%

Licensed independent practitioner: All 84%; declination 1%; medical contraindication 0% and unknown 15%.

Student or volunteer: unknown 100%

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2017-2018 Results Non-Acute Care Hospitals

Mean Percent of Non-Acute Care Hospital HCP Vaccinated against Influenza during the 2017-2018 Season

Total Vaccinated 80% Range 30-97%

Vaccination Declination rate: 13% Range 2-45%

HCP with unknown vaccination status: 7% Range 0-38%

HCP with medical contraindication: 1% Range 0-4%

Location vaccinated

At place of employment: 55% Range 14-75%

Outside place of employment: 25% Range 5-41%

N=36 reporting facilities

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2017-2018 Results: Non-Acute Care Hospitals

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

All HCP 83%; declination 10%: medical contraindication 1% and unknown 6%

Salaried employees: All 82%; declination 12%; medical contraindication 1% and unknown 5%

Licensed independent practitioner: All 76%; declination 6%; medical contraindication 0% and unknown 20%.

Student or volunteer: All 86%; declination 4%; medical contraindication 0% and unknown 10%

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: 2012-2018 Influenza Season

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2017-2018 Results: Clinics

Mean Percent of Clinic HCP Vaccinated against Influenza during the 2017-2018 Season

Total Vaccinated: 75% Range: 10-100%

Medical: 1% Range 0-14%

Declined: 20% Range 20-100%

Unknown: 7% Range 0-90%

Location vaccinated: at Place of Employment: 31% Range 0-100%; outside place of employment 44% Range 0-100%

N=181 Reporting Facilities

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

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2017-2018 Results: Nursing Homes

Mean Percent of Nursing Home HCP Vaccinated Against Influenza during the 2017-2018 Season

Total vaccinated: 71% range 0-100%

Exceptions:

Medical: 1% Range 0-16%

Declined: 18% Range 0-71%

Unknown: 12% Range 0-100%

Location vaccinated: at Place of Employment: 52 % Range 0-100%; outside place of employment 19% Range 0-98%

N=351 Reporting Facilities

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

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2017-2018 Results: Rest Homes

Mean Percent of Rest Home HCP Vaccinated Against Influenza during the 2017-2018 Season

Total vaccinated: 71% Range 16-100%

Total Exceptions:

Medical: 1% Range 0-8%

Declined: 40% Range 0-100%

Unknown: 6% Range 0-63%

Location vaccinated

At place of employment: 30% range 0-76%

Outside place of employment: 41% range 4-100%

N=32 Reporting Facilities.

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

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2017-2018 Results: Adult Day Health Programs

Mean Percent of Adult Day Health HCP Vaccinated against Influenza during the 2017-2018 Season

Total vaccinated: 63% Range 0-100%

Total Exceptions:

Medical: 3% Range 0-25%

Declined: 36% Range 0-100%

Unknown: 4% Range 0-50%

Location vaccinated:

At place of employment: 34% Range 0-100%

Outside place of employment: 29% range 0-100%

N= 144 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: 2012-2018 Seasons

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

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Conclusions

All facility types have reported higher vaccination rates in 2017-2018 when compared to 2012-2013 season. (Adult Day Health facility vaccination rates are equal to their earliest reported season, 2015-2016).

Overall acute care hospital vaccine coverage exceeds the DPH and Healthy People 2020 benchmark for the fourth consecutive year.

No other facility type reached the established overall performance goal.

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Enhanced DPH Public Health Actions

NEW

DPH is hosting an October 2018 webinar to improve healthcare personnel influenza coverage. Program content will include: Influenza disease burden, key facts about the current season; surveillance and reporting; and strategies for increasing HCP coverage.

NEW

DPH Quality improvement initiative targeting facilities from the lowest quartile of HCP influenza vaccination coverage during the 2017-18 season.

Direct outreach to assess previous vaccination strategies and perceived barriers to implementation.

Provide facility specific evidence-based recommendations to improve vaccination coverage.

January 2019: Conduct outreach to monitor progress and provide additional support to promote success.

Post-season interview to review performance and to assess strategies utilized during the 2018-2019 influenza season.

Share aggregate findings with facilities and public health partners.

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Ongoing DPH Public Health Actions

Reinforcement of the reporting requirement and statewide performance goal during trainings, and on-site visits in nursing homes.

Monitoring trends and reporting annual compliance with the HCP influenza vaccination requirements.

Promotion of continuous quality improvement, by recommending licensed facilities share vaccination rates with all staff, including administrators, boards of directors, practice managers, ombudsperson and patient/family councils.

Encouraging facilities to evaluate their current influenza vaccination program and policies and develop an action plan to maximize influenza vaccination coverage of HCP to achieve the Healthy People 2020 and DPH target of 90% vaccination.

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

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Next Steps

DPH will disseminate this update to all licensed facilities with recommendations to distribute broadly within each facility and to use the reported data to drive improvement.

This update and facility specific results will be available on the MDPH website:

https://www.mass.gov/service-details/flu-vaccination-reports-healthcare-personnel

Please direct any questions to:

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