Slide 1

Massachusetts Healthcare Personnel Influenza Vaccination in Health Care Facilities 2016-2017 Influenza Season

Slide 2

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

Slide 3

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).

Slide 4

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

Slide 5

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.

Slide 6

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

Slide 7

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, 2016 to March 31, 2017, 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

Slide 8

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 2016-2017

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 2016-2017

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

Slide 9

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 2016-2017

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 2016-2017

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

Slide 10

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

Facilities were required to report directly to DPH by April 15, 2017:

Total number of employees as of December 31, 2016;

Total number of employees receiving seasonal influenza vaccination provided by the health care facility between August 1, 2016 and March 31, 2017;

Total number of employees receiving seasonal influenza vaccination administered outside the health care facility between August 1, 2016 and March 31, 2017; and

Total number of employees who declined vaccination between August 1, 2016 and March 31, 2017

Slide 11

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.

Slide 12

Median and Range of HCP Influenza Vaccine Coverage at Massachusetts Acute Care Hospitals 2016-2017

Key Findings

The statewide median for vaccine coverage was 94%59 (82%) facilities achieved vaccine coverage of 90% or greater

Most HCP were vaccinated at their workplace

Median declination was only 4%

Slide 13

Acute Care Hospital Healthcare Personnel Vaccine Coverage in Aggregate

Acute Care Hospital Healthcare Personnel Vaccine Coverage in Aggregate

Mean State Aggregate HCP Vaccine Coverage and Range

Total HCP Vaccinated: 240,095 (92%) Range: 77 - 99%

Vaccinated at Facility: 175,626 (73%) Range: (47-91%)

Vaccinated Elsewhere: 64,469 (27%) Range: (34-50%)

HCP Declined Vaccination: 12,735 (5%) Range (0 - 20%)

HCP with Unknown Vaccination Status: 5710 (2%) Range (0 - 12%)

HCP with a Medical Contraindication: 1,759 (1%) Range (0 - 7%)

Slide 14

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.

Slide 15

Trends Over Time Acute Care Hospitals

Median HCP vaccine coverage increased slightly in 2016-17 and met the Healthy People 2020 benchmark of 90%. The median declination rate remained 4% in 2016-17.

Slide 16

2016-2017 Results: Ambulatory Surgical Centers

Mean percentage of HCP at Ambulatory Surgical Centers Vaccinated against Influenza During 2016-2017 season

Total vaccinated 85% Range: 43-100%

Vaccine Declination rate: 11% Range 0-57%

HCP with unknown vaccination status: 2% Range 0-30%

HCP with Medical Contraindication: 2% Range 0-12%

Location Vaccinated

At place of employment: 44% Range 0-90%

Outside place of employment: 37% Range 3-100%

Slide 17

2016-2017 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 86%; declination 10%: medical contraindication 1% and unknown 2%

Salaried employees: All 83%; declination 15%; medical contraindication 1% and unknown 1%

Licensed independent practitioner: All 90%; declination 5%; medical contraindication 3% and unknown 4%.

Student or volunteer: 100%

Slide 18

2016-2017 Results: Dialysis Centers

Mean Percent of Dialysis Center HCP Vaccinated against Influenza during the 2016-2017 Season

Total vaccinated: 88% Range 50-100%

Vaccination Declination Rate: 18% Range 0-50%

HCP with unknown vaccination status: 3% Range 0-24%

HCP with Medical Contraindication: 1% Range 0-11%

Location vaccinated:

At place of Employment: 59% Range 20-97%

Outside place of employment: 30% Range 3-59%

N=73 Reporting Facilities

Slide 19

2016-2017 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 89%; declination 10%; medical contraindication 1% and unknown 12%

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

Student or volunteer: unknown 100%

Slide 10

2016-2017 Results Non-Acute Care Hospitals

Mean Percent of Non-Acute Care Hospital HCP Vaccinated against Influenza during the 2016-2017 Season

Total Vaccinated 79% Range 35-98%

Vaccination Declination rate: 12% Range 0-52%

HCP with unknown vaccination status: 8% Range 0-43%

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

Location vaccinated

At place of employment: 56% Range 23-77%

Outside place of employment: 24% Range 3-45%

Slide 11

2016-2017 Results: Non-Acute Care Hospitals

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

All HCP 80%; declination 12%: medical contraindication 1% and unknown 7%

Salaried employees: All 79%; declination 14%; medical contraindication 1% and unknown 6%

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

Student or volunteer: All 88%; declination 3%; medical contraindication <1% and unknown 9%

N=39

Slide 12

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: 2012-2017 Influenza Season

Slide 13

2016-2017 Results: Clinics

Mean Percent of Clinic HCP Vaccinated against Influenza during the 2016-2017 Season

Total Vaccinated: 65% Range: 0-100%

Total exceptions\*: 27% Range 0-100%

Location vaccinated: at Place of Employment: 29% Range 0-100%; outside place of employment 36% Range 0-100%

N=164 Reporting Facilities

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

Slide 14

2016-2017 Results: Nursing Homes

Mean Percent of Nursing Home HCP Vaccinated Against Influenza during the 2016-2017 Season

Total vaccinated: 75% range 0-100%

Total exceptions\*: 23% Range 0-100%

Location vaccinated: at Place of Employment: 54% Range 0-100%; outside place of employment 21% Range 0-83%

N=358 Reporting Facilities

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

Slide 15

2016-2017 Results: Rest Homes

Mean Percent of Rest Home HCP Vaccinated Against Influenza during the 2016-2017 Season

Total vaccinated: 75% Range 47-100%

Total exceptions\*: 30% range 0-70%

Location vaccinated

At place of employment: 35% range 0-76%

Outside place of employment: 40% range 6-87%

N=20 Reporting Facilities.

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

Slide 16

2016-2017 Results: Adult Day Health Programs

Mean Percent of Adult Day Health HCP Vaccinated against Influenza during the 2016-2017 Season

Total vaccinated: 60% Range 0-100%

Total Exceptions\*: 40% Range 0-100%

Location vaccinated:

At place of employment: 32% Range 0-100%

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

N= 132 Reporting Facilities

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

Slide 17

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: 2012-2017 Seasons

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

Slide 18

Conclusions

All facility types (except Clinics) have reported higher vaccination rates in 2016-2017 when compared to 2012-2013 season.

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

No other facility type reached the established overall performance goal.

The range of vaccine coverage continues to vary widely.

Slide 19

Enhanced Public Health Actions

DPH is planning a two part webinar series targeting Adult Day Health Centers, Clinics, Nursing Homes and Rest Homes. Program content will include: Influenza disease burden, key facts about the current season; surveillance and reporting; and strategies for increasing HCP coverage.

DPH will continue to reinforce the reporting requirement and statewide performance goal during dialysis trainings, and on-site Infection Control Assessment and Response (ICAR) visits in nursing homes.

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 will continue to encourage 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

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

Slide 20

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 will be available on the MDPH website:

www.mass.gov/dph/dhcq

Please direct any questions to:

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