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Massachusetts Healthcare Personnel Influenza Vaccination in Health Care Facilities:

*Seasons 2019 -2022*

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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/prevent/keyfacts.htm*](https://www.cdc.gov/flu/prevent/keyfacts.htm)

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Backgroung

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

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 coverage of HCP.

The Advisory Committee on Immunization Practices (ACIP) recommends that HCP receive an annual influenza vaccination to reduce influenza related morbidity and mortality among HCP and their patients as well as reduce absenteeism among HCP.

[*https://www.healthypeople.gov/node/4668/data\_details*](https://www.healthypeople.gov/node/4668/data_details)

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COVD-19 Pandemic

Due to the COVID-19 pandemic, healthcare facility reporting deadlines and DPH data analysis were postponed during the 2019-2020 and 2020-2021 influenza seasons. **This presentation includes data from those previous seasons in addition to the latest season 2021-2022.**

In season 2019-2020, nursing homes and rest homes were offered an incentive in the form of a reimbursement for their licensure renewal fee if at least 90% of their staff were vaccinated against influenza.

In season 2020-2021, HCP vaccination against influenza was mandated by the Commonwealth for nursing homes, rest homes, and adult day health programs, with a financial penalty for each unvaccinated staff member without a medical or religious exemption

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Methodology

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

* 1. National Healthcare Safety Network (NHSN) at the Centers for Disease Control and Prevention (CDC): Acute care hospitals, ambulatory surgical centers, dialysis centers and non-acute hospitals
  2. Health Care Facility Reporting System (HCFRS): Nursing homes, rest homes, and adult day health programs
  3. Online survey: Clinics

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Reporting Requirements

All facilities were required to submit the following data elements, for the period October 1 to March 31 of each flu season:

* + Total number of HCP who worked at least one day in the reporting period
  + HCP vaccinated at the facility
  + HCP vaccinated elsewhere (PCP office, pharmacy, etc.)
  + HCP that declined vaccine
  + HCP with a medical contraindication to the vaccine
  + HCP with unknown vaccine status

Facilities that reported data to NHSN were required to stratify this data by HCP type

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Measures and Calculations

Percentage HCP vaccinated I each season

Vaccine coverage = HCP vaccinated at the facility + HCP vaccinated Elsewhere/total # HCP at facility

Percentage HCP in facility that declined vaccine in each season=

Vaccine declination = # HCP declined vaccine/total # HCP at facility

Percentage HCP in facility with a medical contraindication to vaccine in each season

Medical contraindication= # HCP wit medical contraindication/total # HCP at facility

Percentage HCP in facility with unknown influenza vaccine status in each season

Unknown vaccine status=#HCP with unknown vaccine status/total # HCP at facility

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Overall HCP Influenza Vaccine Coverage in Massachusetts Acute Care Hospitals by Health Care Worker Type 2021-2022

Key Findings

The statewide median for vaccine coverage was 95%

57 (83%) facilities achieved vaccine coverage of 90% or greater

Most HCP were vaccinated at their workplace

Median declination of vaccine was 3%

Total Vaccinated 95%; Vaccinated at facility, 56%; vaccinated elsewhere. 36%; declined vaccination, 1%; Medical contraindication, 0%; unknown, 3%

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2021-2022 Results Reported Through NHSN

Mean percentage of HCP Influenza During 2021-2022 Season

Acute care hospitals

Reporting facilities: 69; mean percent vaccinated, 94%; vaccinated at facility, 57%; vaccinated elsewhere, 36%; mean HCP declined vaccination, 1%; mean HCP with a medical contraindication, 1%; mean HCP with unknown vaccination status, 5%

Ambulatory surgical centers

Reporting facilities: 25; mean percent vaccinated, 94%; vaccinated at facility, 55%; vaccinated elsewhere, 45%; mean HCP declined vaccination, 7%; mean HCP with a medical contraindication, 1%; mean HCP with unknown vaccination status, 3%

Dialysis centers

Reporting facilities: 45; mean percent vaccinated, 59%; vaccinated at facility, 66%; vaccinated elsewhere, 34%; mean HCP declined vaccination, 3%; mean HCP with a medical contraindication, 1%; mean HCP with unknown vaccination status, 37%

Non-acute Care Hospitals

Reporting facilities: 29; mean percent vaccinated, 77%; vaccinated at facility, 58%; vaccinated elsewhere, 42%; mean HCP declined vaccination, 6%; mean HCP with a medical contraindication, 1%; mean HCP with unknown vaccination status, 16%

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State-wide Flu Vaccination Trends Over Time: Acute Care Hospitals

HCP Vaccination in acute Care Hospitals over 10 years.

2012-2013, n=76; mean percent vaccinated 85%; median percent declined 9%; median percent unknown, 4%

2013-2014, n=75; mean percent vaccinated 86%; median percent declined 9%; median percent unknown, 4%

2014-2015, n=74; mean percent vaccinated 92%; median percent declined 5%; median percent unknown, 3%

2015-2016, n=74; mean percent vaccinated 92%; median percent declined 4%; median percent unknown, 2%

2016-2017, n=72; mean percent vaccinated 94%; median percent declined 4%; median percent unknown, 1%

2017-2018, n=72; mean percent vaccinated 94%; median percent declined 4%; median percent unknown, 1%

2018-2019, n=72; mean percent vaccinated 94%; median percent declined 3%; median percent unknown, 0%

2019-2020, n=65; mean percent vaccinated 96%; median percent declined 3%; median percent unknown, 3%

2020-2021, n=70; mean percent vaccinated 97%; median percent declined 1%; median percent unknown, 1%

2021-2022, n=70; mean percent vaccinated 95%; median percent declined 1%; median percent unknown, 3%

Median HCP vaccine coverage remained constant in 2019-22 and exceeded the Healthy People 2020 benchmark of 90%.

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

Mean Percent of HCP Vaccination and Declination Rates for Ambulatory Surgical Centers, Dialysis Centers and Non-Acute Hospitals: 2017-2022 Influenza Seasons

Ambulatory Surgical Centers

2017-2018- 2021-2022 vaccinated and declined

Dialysis centers

2017-2018- 2021-2022 vaccinated and declined

Nonacute hospitals

2017-2018- 2021-2022 vaccinated and declined

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2021-2022 Results Reported to DPH

Mean percentage of HCP Influenza during 2021-2022 season

Clinics

Reporting facilities: 223; mean percent vaccinated, 73%; vaccinated at facility, 39%; vaccinated elsewhere, 61%; mean HCP declined vaccination, 2%; mean HCP with a medical contraindication, 2%; mean HCP with unknown vaccination status, 24%

Adult Day Health

Reporting facilities: 118; mean percent vaccinated, 66%; vaccinated at facility, 25%; vaccinated elsewhere, 75%; mean HCP declined vaccination, 29%; mean HCP with a medical contraindication, 6%; mean HCP with unknown vaccination status, -. The HCFRS form did not include unknown as an option for influenza season 2021-2022.

Nursing homes

Reporting facilities: 317; mean percent vaccinated, 75%; vaccinated at facility,67%; vaccinated elsewhere, 33%; mean HCP declined vaccination, 23%; mean HCP with a medical contraindication, 2%; mean HCP with unknown vaccination status, -. The HCFRS form did not include unknown as an option for influenza season 2021-2022.

Rest homes

Reporting facilities: 44; mean percent vaccinated, 80%; vaccinated at facility,54%; vaccinated elsewhere, 47%; mean HCP declined vaccination, 16%; mean HCP with a medical contraindication, 4%; mean HCP with unknown vaccination status, -. The HCFRS form did not include unknown as an option for influenza season 2021-2022

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Trends Over Time: Nursing homes, rest homes and adult day health programs.

Mean Percent of HCP Vaccination and Declination Rates for: Nursing homes, rest homes and adult day health programs: 2017-2022 Influenza Seasons`

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Conclusions

Overall acute care hospital vaccine coverage exceeds the DPH and Healthy People 2020 benchmark >90% for the three consecutive influenza seasons

Ambulatory Surgical Centers reached the established overall performance goal in 2021-2022 season

Four facility types reported higher vaccination rates in 2019-2020 when compared to prior seasons: Acute Care Hospitals, Ambulatory Surgical Centers, Non-Acute Hospitals, and Clinics

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DPH Incentive and Mandate

DPH has implemented multiple approaches to increase HCP flu vaccinations rates including:

In season 2019-2020, nursing homes and rest homes were offered an incentive in the form of a reimbursement for their licensure renewal fee if at least 90% of their staff were vaccinated against influenza.

* + 54 nursing homes and 3 rest homes qualified for the incentive.

In season 2020-2021, HCP vaccination against influenza was mandated by the Commonwealth for nursing homes, rest homes, and adult day health programs, with a financial penalty for each unvaccinated staff member without a medical or religious exemption.

* + 84 nursing homes and 14 rest homes qualified for a penalty.

DPH followed up with nursing homes during 2021-2022 season and found that administrators prefer receiving clear guidance and educational resources from the state in order to promote vaccination among staff.

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DPH Public Health Actions

DPH continues to take the following action steps:

Reinforcement of the reporting requirement and statewide performance goal during trainings, and on-site visits in adult day health programs, rest homes and 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, ombudspersons and patient/family councils

Distribution of job aids to assist clinics, adult day health centers, nursing homes and rest homes in tracking and monitoring HCP influenza vaccination progress.

Resume hosting webinars to provide updated information for each influenza season.

* + Topics will include: National and Massachusetts flu activity; best practices to promote HCP influenza vaccination; and guidance on data submission

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Enhanced DPH Public Health Response

DPH will develop programming to support and publicly recognize healthcare facilities’ commitment to high flu vaccination rates among health care personnel

During the ongoing COVID-19 pandemic with the potential for concurrent COVID-19 and influenza outbreaks, DPH will continue to promote the safe co- administration of flu and COVID-19 vaccination

Building on the success of LTCFs reporting COVID-19 data in NHSN, DPH will investigate the feasibility of transitioning LTCF HCP influenza reporting to the national application beginning with the 2022-2023 influenza season

DPH will continue to provide useful resources educational materials, strategies and interventions to promote increasing vaccination coverage among HCP

DPH will conduct focused outreach to facilities where opportunities for improvement have been identified to provide technical assistance on best practices to promote HCP influenza vaccination

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Next Steps

DPH will share this update with all licensed healthcare 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/info-details/flu-vaccination-reports-for-healthcare-personnel>

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Massachusetts Department of Public Health

Thank you for the opportunity to present this information today.

Please direct any questions to:

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