

# STEP 1

## Initiate the Campaign

*A successful campaign is based upon an understanding of the rationale and benefits of vaccinating health care personnel (HCP) against the flu.*

	Action Items	Resources in this Kit
①	Consider the who, what, where, when, and why of an immunization campaign.	The Five <i>Ws</i> : Foundational Questions for a Successful Campaign
②	Become familiar with the differences between Trivalent Inactivated Vaccine (TIV) and Live, Attenuated Influenza Vaccine (LAIV).	Just the Facts: TIV vs. LAIV
③	Find up-to-date information about influenza and immunizations.	Annotated Web Links to Rapidly Changing Information
④	Review all current vaccination recommendations for HCP.	Health Care Worker Immunizations — Massachusetts Recommendations

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# The Five Ws: Foundational Questions for a Successful Campaign

*Consider the answers to the following questions as you plan to vaccinate HCP:*

- Who?
- What?
- Where?
- When?
- Why?

## Who?

The Advisory Committee on Immunization Practices (ACIP) develops written recommendations regarding the routine administration of vaccines to the pediatric and adult populations for the secretary of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC). The Committee also issues schedules regarding the appropriate periodicity, dosage, and contraindications applicable to each vaccine.

### Health Care Personnel (HCP)

In February 2006, the ACIP and the Healthcare Infection Control Practices Advisory Committee (HICPAC) reaffirmed long-standing guidance and **recommended that all HCP be vaccinated annually against influenza, and that facilities that employ HCP are strongly encouraged to provide influenza vaccine to their staff.**

To view the "Influenza Vaccination of Health Care Personnel: Recommendations of the Healthcare Infection Control Practices Advisory Committee (HICPAC) and the Advisory Committee on Immunization Practices (ACIP)," visit [www.cdc.gov/mmwr/preview/mmwrhtml/rr5502a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5502a1.htm).

Specific recommendations include the following:

- Educating HCP regarding the benefits of influenza vaccination and the potential health consequences of influenza for their patients, their co-workers, and themselves
- Offering influenza vaccine annually to all eligible HCP
- Providing influenza vaccination to HCP at the work site and at no cost

Print and review the complete recommendations each year.

## What?

All HCP should be vaccinated annually against influenza. Two options are now available to employers who want to provide influenza immunizations to their employees:

- Inactivated influenza vaccine
- Live, attenuated influenza vaccine (LAIV)

Either inactivated influenza vaccine or LAIV can be used to reduce the risk for influenza among HCP. LAIV is an option for nonpregnant healthy persons 5 to 49 years of age. Inactivated influenza vaccine is approved for persons  $\geq 6$  months of age, including those with high-risk conditions.

## Using LAIV for HCP

LAIV may be used for vaccination of healthy, nonpregnant persons 5 to 49 years of age, including HCP. When feasible, use of LAIV for vaccination of eligible HCP is especially encouraged during periods of limited supply of inactivated influenza vaccine, because use of LAIV for HCP might increase availability of inactivated influenza vaccine for persons at high risk. Use of LAIV also provides an alternative vaccine strategy for HCP who avoid influenza vaccination because of an aversion to intramuscular injections.

HCP who work with severely immunocompromised patients requiring a protective environment should not receive LAIV, or should wait until seven days after vaccination before contact with such severely immunocompromised patients.

If you use or intend to use LAIV, you should review the ACIP recommendations: [www.cdc.gov/mmwr/preview/mmwrhtml/rr55e209a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr55e209a1.htm). The recommendations provide detailed information on LAIV, including dosage, route, administration, and storage.

## Just the Facts: Trivalent Inactivated Influenza Vaccine (TIV) Versus Trivalent Live, Attenuated Influenza Vaccine (LAIV)

	<b>Trivalent Inactivated Influenza Vaccine (TIV)</b>	<b>Live, Attenuated Influenza Vaccine (LAIV)</b>
Influenza Strains	Contains strains of influenza viruses that are antigenically equivalent to the annually recommended strains	Same as TIV
Method of Manufacturing	Virus strains are grown in eggs	Same as TIV
Frequency of Administration	Administered annually to provide optimal protection against influenza infection	Same as TIV
Efficacy	When the vaccine and circulating viruses are antigenically similar, influenza vaccine prevents influenza illness among approximately 70 to 90% of healthy adults <65 years of age. Comparisons between LAIV and inactivated vaccine have not found a statistically significant difference in efficacy.	Same as TIV
Virus State	Contains killed (inactivated) viruses	Contains live, attenuated viruses still capable of replication
Route of Administration	Administered intramuscularly by injection	Administered intranasally by sprayer
Approved Age and Risk Groups	Approved for use among persons $\geq 6$ months of age, including both those who are healthy and those with chronic medical conditions	Approved for use only among healthy persons 5 to 49 years of age

## Where?

- Studies have found that education programs alone have not had a significant impact on increasing HCP immunization rates.<sup>1-3</sup>
- Increasing evidence shows that providing flu immunizations to employees on-site and *free of charge* yields the most positive response.<sup>4,5</sup>
- **Most Effective:** The combination of an educational program and providing vaccine at multiple access points on-site during the entire flu season is the most effective strategy for vaccinating HCP. Employers providing such comprehensive programs report immunization rates as high as 80%.<sup>1,2, 6-8</sup>

## When?

There are two fundamental “when” questions:

### When to Order Vaccine

- Many health care organizations have a process for ordering medical supplies including vaccines. When ordering through a pharmacy or a distributor, speak with them as early in the year as possible about placing an order. Consider whether to obtain specific quantities of both the inactive vaccine and the LAIV.
- Vaccine manufacturers generally begin taking orders soon after January 1. Contact a vaccine sales representative to determine the manufacturer’s pre-booking schedule. A list of current manufacturers can be found at [www.cdc.gov/flu/professionals/vaccination](http://www.cdc.gov/flu/professionals/vaccination). (Scroll down to “Vaccine Supply, Ordering, and Distribution.”)

### When to Immunize HCP

- In New England, the flu season usually begins in December and extends through April and May. The optimal time to vaccinate HCP is October and November. However, if circumstances prevent vaccination during the optimal time, it is not too late to vaccinate into March. A good HCP immunization program should target all employees, including new employees who join the organization during the winter months.
- In times of shortage or delays in the availability of influenza vaccine, the Massachusetts Department of Public Health (MDPH) may develop and promulgate recommendations regarding revised immunization schedules.
- Recommendations are published on the MDPH website at [www.mass.gov/dph/flu](http://www.mass.gov/dph/flu).

## Why?

### Patient Safety

Unimmunized HCP can put patients and nursing home residents at risk for serious illness and even death.<sup>9</sup> Influenza outbreaks in hospitals and nursing homes have been associated with low immunization rates among HCP.<sup>10</sup> Since HCP often work while ill or return to work as soon as possible, unvaccinated HCP are more likely to transmit influenza than vaccinated workers. Creating a culture of safety that includes a clear policy on HCP immunization should be a priority for all health care facilities.

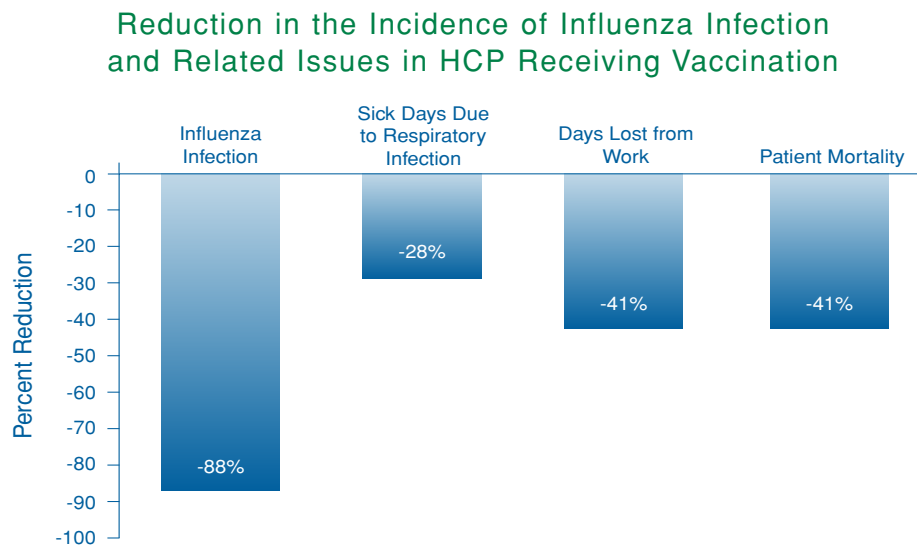
### Financial Impact

According to the National Foundation for Infectious Diseases, "There are many benefits of health care worker vaccination, including decreased illness leading to reduced absenteeism, reduced medical visits, and reduced antibiotic use among health care workers themselves."<sup>3</sup> Studies have shown a range in savings from \$13 to more than \$100 for each employee immunized.

In addition to the direct costs of influenza-related absenteeism, there are indirect costs, including:

- Hiring temporary and often less-experienced replacements
- Additional stress placed upon other staff, which could impact patient care

When employers offer influenza vaccine to their staff, it can provide added value. The employer's effort can demonstrate its investment in employees, which can help increase staff morale and help raise staff understanding of the need for both HCP and patients to receive influenza vaccination to prevent institutional outbreaks.



Adapted from: Talbot TR, Bradley, SF, and Cosgrove SE, et al. SHEA Position Paper: Influenza Vaccination of Healthcare Workers and Vaccine Allocation for Healthcare Workers During Vaccine Shortages. Society for Healthcare Epidemiology of America. *Infect Control Hosp Epidemiol*. 2005; 26:882-890.

## References

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8. Salgado CD, Giannetta ET, Hayden FG, et al. Preventing nosocomial influenza by improving the vaccine acceptance rate of clinicians. *Infect Control Hosp Epidemiol*. 2004; 25:923-928.
9. Carman WF, Elder AG, Wallace LA, et al. Effects of influenza vaccination of health care workers on mortality of elderly people in long-term care: a randomised controlled trial. *Lancet*. 2000; 355:93-97.
10. Nichol KL, Lind A, Margolis KL, et al. The effectiveness of vaccination against influenza in healthy, working adults. *N Engl J Med*. 1995; 333(14):889-893.

## Annotated Web Links to Rapidly Changing Information

Information about influenza and immunizations changes rapidly. Please refer to the following websites for the most up-to-date information.

### Direct Access to Web Links

Note: This kit can be accessed electronically from the Massachusetts Medical Society's website, [www.massmed.org/flu\\_kit](http://www.massmed.org/flu_kit), allowing direct access to the Internet sites listed below and throughout the kit.

### Key Websites

#### Centers for Disease Control and Prevention

Influenza Home Page

[www.cdc.gov/flu](http://www.cdc.gov/flu)

Advisory Committee on Immunization Practices (ACIP) Recommendations Inactivated Influenza Vaccine and Live, Attenuated Influenza Vaccine

[www.cdc.gov/nip/publications/acip-list.htm](http://www.cdc.gov/nip/publications/acip-list.htm) (Scroll down to Influenza.)

#### Massachusetts Department of Public Health

Influenza Home Page

[www.mass.gov/dph/flu](http://www.mass.gov/dph/flu)

#### Masspro Immunization Services

[www.masspro.org](http://www.masspro.org) (Click on Immunization Services.)

## Educational Materials

### Immunization Action Coalition

Find camera-ready and copyright-free educational materials for health professionals and the public.

[www.immunize.org](http://www.immunize.org)

Locate vaccine information statements (VISs) in multiple languages for the injectable influenza vaccine and for intranasal influenza vaccine.

[www.immunize.org/vis](http://www.immunize.org/vis)

### National Foundation for Infectious Diseases

*Influenza Immunization Among Health Care Workers: Call to Action*

[www.nfid.org/publications/calltoaction.pdf](http://www.nfid.org/publications/calltoaction.pdf)

*Improving Influenza Vaccination Rates in Health Care Workers: Strategies to Increase Protection for Workers and Patients*

[www.nfid.org/publications/hcwmonograph.pdf](http://www.nfid.org/publications/hcwmonograph.pdf)

### Association for Professionals in Infection Control and Epidemiology (APIC)

Access a toolkit, "Protect Your Patients. Protect Yourself," to help increase health care worker influenza immunization rates.

[www.apic.org/Content/NavigationMenu/PracticeGuidance/Topics/Influenza/toolkit\\_welcome.htm](http://www.apic.org/Content/NavigationMenu/PracticeGuidance/Topics/Influenza/toolkit_welcome.htm)

### National Immunization Program

This site lists immunization self-study programs. Most programs are free of charge and offer continuing education credit.

[www.cdc.gov/nip/ed/video\\_selfstudy.htm](http://www.cdc.gov/nip/ed/video_selfstudy.htm)

## Pandemic Influenza

### U.S. Department of Health and Human Services

This site offers one-stop access to U.S. Government avian and pandemic flu information.

[www.pandemicflu.gov](http://www.pandemicflu.gov)

### Massachusetts Department of Public Health

Find information about pandemic planning in Massachusetts.

[www.mass.gov/dph/cdc/epii/flu/pandemic.htm](http://www.mass.gov/dph/cdc/epii/flu/pandemic.htm)

## Other Helpful Resources

### Massachusetts Medical Society

Flu Page

Find resources for both physicians and patients (includes this kit).

[www.massmed.org/flu](http://www.massmed.org/flu)

### Masspro

This site provides a detailed list of public flu clinics by town.

<http://flu.masspro.org>

## Health Care Worker Immunizations Massachusetts Recommendations and Requirements for 2006

<b>Recommended Immunizations for Health Care Workers<sup>1</sup></b>		
<b>Vaccine</b>	<b>Persons Born Before 1957</b>	<b>Persons Born In or After 1957</b>
MMR <sup>2</sup> (Measles, mumps, rubella)	1 dose	2 doses
Varicella <sup>3</sup>	2 doses	2 doses
Influenza	1 dose/year	1 dose/year
Hepatitis B <sup>4</sup>	3 doses	3 doses
Td/Tdap <sup>5</sup> (Tetanus, diphtheria, pertussis)	1 Td booster every 10 years, Substitute 1 dose of Tdap for Td	Booster every 10 years
Pneumococcal	1 dose at any age if at risk for pneumococcal disease; 1 dose for everyone ≥65 years of age	1 dose at any age if at risk for pneumococcal disease

- 1 Health care workers (HCWs) are defined as full- and part-time staff with or without direct patient care responsibilities, including physicians, students and volunteers who work in inpatient, outpatient and home-care settings.
- 2 Unvaccinated HCWs born before 1957 should receive 1 dose of MMR, unless they have documented immunity to measles, mumps **and** rubella. HCWs born in or after 1957, should receive 2 doses of MMR, one month apart, unless they have documented immunity to measles, mumps **and** rubella. In Massachusetts, proof of immunity to measles and rubella is required for certain HCWs. (Refer to: MASSACHUSETTS IMMUNIZATION REQUIREMENTS FOR HEALTH CARE WORKERS below.)
- 3 Varicella vaccine is indicated for HCWs who have neither a reliable history (physician diagnosis or personal recall) of varicella disease nor serologic evidence of immunity.
- 4 Prevacination hepatitis B serologic screening is not indicated for persons being vaccinated because of occupational risk. HCWs who have contact with patients or blood **and** who are at ongoing risk for injuries with sharp instruments or needlesticks should be tested 1 to 2 months after vaccination to determine serologic response.
- 5 HCWs who work in hospitals or ambulatory care settings and have direct patient contact should receive a single dose of Tdap as soon as feasible if they have not previously received Tdap. Priority should be given to vaccination of health-care personnel with direct contact with infants aged < 12 months. An interval as short as 2 years from the last dose of Td is recommended for the Tdap dose. Other health-care personnel (i.e., those who do not work in hospitals or ambulatory care settings or who do not have direct patient contact) should receive a single dose of Tdap according to the routine recommendation and interval guidance for use of Tdap among adults. However, these personnel are encouraged to receive the Tdap dose at an interval as short as 2 years following the last Td.

<b>Massachusetts Immunization Requirements for Health Care Workers</b>		
<b>Group and Regulation</b>	<b>Requirement</b>	<b>Proof of Immunity</b>
Health care personnel assigned to maternal-newborn areas (105 CMR 130.626)	Immunity to measles and rubella	At least one dose of vaccine on or after 12 months of age; serologic evidence of immunity to rubella and measles; or, for measles only, physician-diagnosed disease.

Note: Federal Occupational Safety and Health Administration (OSHA) regulations may include other immunization requirements for workers in certain occupational settings.

These Adult Immunization Guidelines are based on the recommendations of the Advisory Committee on Immunization Practices (ACIP) and the National Coalition for Adult Immunization. For specific ACIP recommendations refer to the full statements at [www.cdc.gov/nip/publications/ACIP-list.htm](http://www.cdc.gov/nip/publications/ACIP-list.htm). They are also published in the MMWR. For questions about these recommendations visit the MDPH website at [www.mass.gov/dph](http://www.mass.gov/dph) or call MDPH toll-free at (888) 658-2850.