

# **NIOSH Research on Implementation of Influenza Preventive Measures in Workplaces**

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**HHE: 2009 PANDEMIC INFLUENZA  
AND PREVENTIVE MEASURES  
AMONG PHYSICIANS IN  
TRAINING**

## 2009 Pandemic Influenza in Physicians in Training

- ❑ ~110,000 physicians in training in U.S.
- ❑ Health hazard evaluation (HHE) request from residency program director in Utah
- ❑ Several residents with influenza-like illness (ILI) in June 2009
- ❑ Objectives:
  - To estimate prevalence of pH1N1 infection and ILI
  - To identify modes of transmission
  - To assess knowledge, attitudes, and practices regarding influenza infection control measures

## 2009 Pandemic Influenza in Physicians in Training

- ❑ Cross-sectional study design
- ❑ Electronic surveys sent to current, recently graduated internal medicine residents, fellows in 4 hospitals
- ❑ 88 (42%) physicians completed electronic survey
- ❑ Reported contact with ill (pH1N1 or ILI) persons:
  - Ill patient (65%)
  - Ill coworker at work (52%)
  - Ill coworker outside of work (32%)

## 2009 Pandemic Influenza in Physicians in Training

- ❑ 13 physicians reported ILI
- ❑ 5 confirmed to have influenza
  
- ❑ Influenza preventive measures
  - High seasonal influenza vaccination rate (90%)
  - Hand hygiene compliance (77% before, 81% after patient encounter)
  - 10 reported working despite being ill (1–4 days)
    - Professional obligation to patients, co-workers

## 2009 Pandemic Influenza in Physicians in Training

- ❑ Knowledge of minimum PPE recommendations for flu at 4 hospitals (13%–88%)
- ❑ PPE adherence (36% high, 63% low adherence)
- ❑ Most common reasons for not using recommended PPE:
  - I did not know the patient had pH1N1 or ILI (58%)
  - The recommended PPE was not near my patients' rooms (30%)



# **HHE: INFLUENZA VACCINATION IN CHILD CARE WORKERS**

## Influenza Vaccination in Child Care Workers

- ❑ > 1.3 million employed in child day care settings
- ❑ Technical assistance request from local county family services agency in 2010
- ❑ Objectives:
  - Determine pH1N1, seasonal influenza vaccination rates among child care center employees
  - Assess knowledge, attitudes regarding vaccine



de Perio MA et al. Low Influenza Vaccination Rates Among Child Care Workers in the United States: Assessing Knowledge, Attitudes, and Behaviors. *J Comm Health* 2012;37(2):272-81.

# Influenza Vaccination in Child Care Workers

- ❑ Cross sectional study design
- ❑ Study population: All part-time and full-time employees working at randomly selected licensed child care centers
- ❑ Administered in person paper surveys on-site January 30–March 1, 2010



## **Influenza Vaccination in Child Care Workers**

- ❑ **384 (95%) of 403 employees at 32 child care centers completed survey**
- ❑ **Only 45 (12%) received pH1N1 vaccine**
- ❑ **3 most common reasons for not getting the vaccine**
  - **I don't think I need the vaccine (25%)**
  - **I don't think the vaccine will keep me from getting the flu (16%)**
  - **The vaccine is not safe (16%)**

Look at how many members of our staff have gotten their flu vaccine this year.

**Our Goal**  
100%



Protect yourself.  
Protect your family.  
Protect the children you care for.

**Get your flu vaccine today!**



## Common Misunderstandings about the Flu

### The flu isn't that serious.

The flu is contagious and can lead to severe illness even in healthy children and adults. The number of U.S. flu-related deaths ranges from 3,000 to 49,000 per year. Around 12,000 people died from the 2009 H1N1 flu.

### My job doesn't put me at risk for getting the flu.

The flu can spread quickly in child care settings because children younger than 5 years of age are particularly vulnerable; they are constantly in close contact with one another and their caregivers; toys and other objects are often shared; and young children may not be able to wash their hands well or cover their mouth and nose when they cough or sneeze. These things increase the risk of spreading the flu.

### I don't need to get vaccinated.

Everyone who is 6 months of age or older should get the flu vaccine. Even healthy children and adults can get very sick from the flu. Pregnant women, adults aged 65 and over, and people with certain medical conditions are at greater risk of getting very sick from the flu. People who work in child care settings should get the vaccine to protect themselves, their families, and the children they care for. Infants under 6 months are too young to get the vaccine so it is especially important for their caregivers to get vaccinated.

### I got the flu and the H1N1 vaccine last year so I don't need to get vaccinated this year.

Flu viruses are constantly changing. Each year the flu vaccine is updated to protect against the three flu viruses that research indicates will be most likely to cause disease that season. Previous flu vaccines will not protect you from getting the flu this season.

### The flu vaccine doesn't work.

In adults, flu vaccines are very effective when the vaccine matches the flu viruses that are circulating in the community. In past years, the flu vaccine has usually been a good match.

### The flu vaccine can give me the flu.

The flu shot cannot give you the flu. The shot contains dead viruses that cannot cause infection. However, sometimes after getting the vaccine, people will have flu-like symptoms. These symptoms are not caused by the vaccine. The symptoms can be caused by exposure to a virus other than the flu, exposure to a flu virus before getting vaccinated or in the two weeks before the vaccine takes effect, or exposure to a flu virus that is not included in this season's vaccine.

### The vaccine is not safe.

Flu vaccines have been given for more than 50 years and they have a very good safety record.

### It's too late now to get the flu vaccine so I will have to wait until next year.

In the United States, flu season runs from fall through early spring. It is not too late to get vaccinated!

For more information about the flu and ways to protect yourself, your family, and the children you care for visit [www.cdc.gov/flu](http://www.cdc.gov/flu) or [www.flu.gov](http://www.flu.gov).

To find out where to get the flu vaccine visit [www.hamiltoncountyhealth.org/en/](http://www.hamiltoncountyhealth.org/en/) or call 513-931-SHOT.



Materials developed to encourage vaccination

**SURVEILLANCE STUDY:  
INFLUENZA VACCINATION  
AMONG NURSING ASSISTANTS**

## Nursing Assistants

- ❑ ~ 600,000 nursing assistants (NA) in U.S. long term care facilities (LTCF)
- ❑ Primary caregivers for LTCF residents
  - Provide 90% of hands-on care
  - Assist residents with activities of daily living, direct care



# Influenza Vaccination in Nursing Assistants

- ❑ Surveillance study using data from the National Center for Health Statistics (NCHS)
- ❑ Objectives
  - Estimate influenza vaccination rate among NAs in LTCFs
  - Identify demographic and occupational predictors of vaccination status

## **Influenza Vaccination in Nursing Assistants**

- ❑ **Analyzed cross-sectional data from 2004 National Nursing Assistant Survey (n = 2,873)**
- ❑ **Influenza vaccination coverage: 37%**
- ❑ **Similar to nationally reported HCP estimates**



## **Influenza Vaccination in Nursing Assistants**

- ❑ **Characteristics associated with not getting vaccine:**
  - **Non-hispanic blacks**
  - **Not feeling respected/rewarded for work**
  - **Work at for-profit facility**
  - **Receiving fewer than 7 of 15 nonwage job benefits**

## Recommendations

- ❑ Education and training to employees about
  - Risk of influenza
  - Efficacy and safety of vaccine
  - Other preventive measures
- ❑ Reduce attitudinal barriers to vaccination
- ❑ Make vaccination convenient and available
- ❑ Establish workplace policies that encourage employees with influenza to stay home

## **Current Work/Considerations**

- ❑ **Ongoing HHE looking at influenza vaccination among employees in local school district**
- ❑ **Collaborating with CDC's Immunization Services Division on national flu vaccine in HCP survey**
- ❑ **Other occupational groups at higher risk**
  - **Other health care personnel (home health)**
  - **Public administration workers**
  - **Transportation workers**
  - **Poultry and swine workers**

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# Questions

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