



Long-term Care Facility Healthcare Personnel Immunization Toolkit

INDIANA STATE DEPARTMENT OF HEALTH
EPIDEMIOLOGY RESOURCE CENTER

| September 2018 |

September 7, 2018

Dear Long-Term Care Facility Administrator:

Influenza season poses a unique and significant risk to the residents of your facility. With flu season approaching we are taking this opportunity to ask for your help in ensuring that health care personnel (HCP) who work in long-term care (LTC) settings are vaccinated against influenza. Influenza vaccination rates of HCP have been increasing slowly over time but are still well below 90%, the national Healthy People 2020 goal for influenza immunization.

Annual influenza vaccinations are recommended for both residents and HCP of long-term care facilities. All staff who have access to patient areas, not just clinical staff, are considered HCP. Vaccinating HCP has been shown to reduce the mortality of nursing home residents and decrease risk of influenza outbreaks. During a confirmed influenza outbreak, it is estimated that one-third of residents and one-quarter of staff develop an influenza-like illness.¹

Last flu season, there were 117 LTC facility influenza outbreaks reported to the Indiana State Department of Health (ISDH). Many of these outbreaks carry substantial societal and financial costs through increased health care costs and worker absenteeism. The Centers for Disease Control and Prevention (CDC) shows that HCP vaccination could result in one-third fewer lost workdays and one-quarter fewer days working with reduced effectiveness.²

The ISDH has put together a toolkit of resources with evidence-based strategies and tools to help you increase the influenza vaccination rate of your HCP including:

- Indiana long-term care HCP survey results about influenza vaccination
- Influenza background information
- Case study of successful vaccination programs in LTC facilities
- Common barriers faced and strategies to improve vaccination rates
- Influenza virus and influenza vaccine myths and reality
- CDC influenza vaccination information statement
- Sample vaccination declination form
- Vaccination coverage tracking form
- Sample letter to staff
- Infographics and posters to hang around facility

As we approach the upcoming influenza season, we urge you to support vaccination of HCP in your organizations. Thank you for your efforts to reduce infectious diseases and improve public health.

Sincerely,
Epidemiology Resource Center
317-233-7125

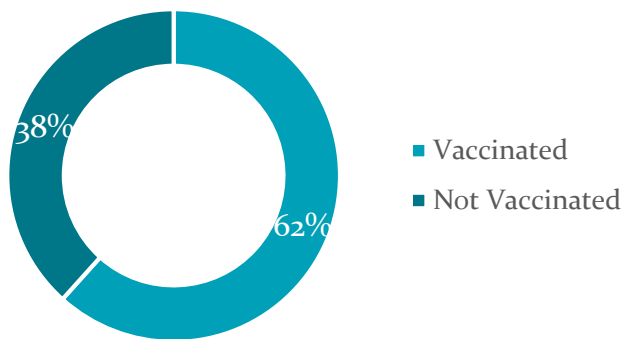
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Long-Term Care Health Care Personnel Survey on Influenza Vaccination

The Indiana State Department of Health surveyed health care personnel (HCP) at long-term care facilities in Indiana. There were 133 survey respondents including all clinical and nonclinical staff at long-term care facilities.

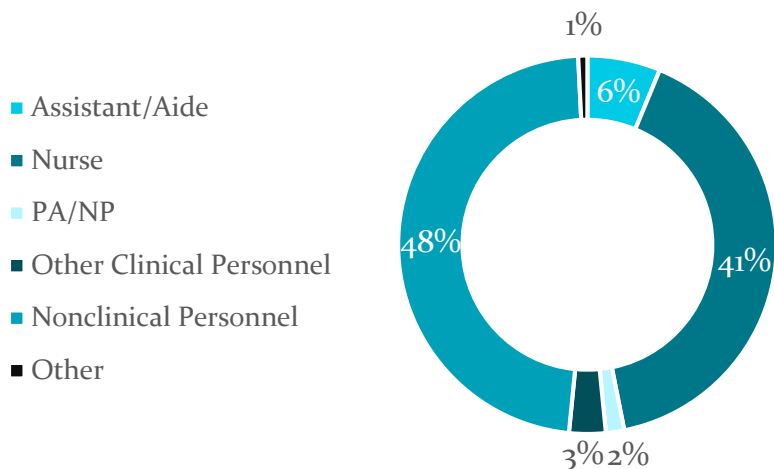
HCP Influenza Vaccination (n=133) during 2017-18 Flu Season



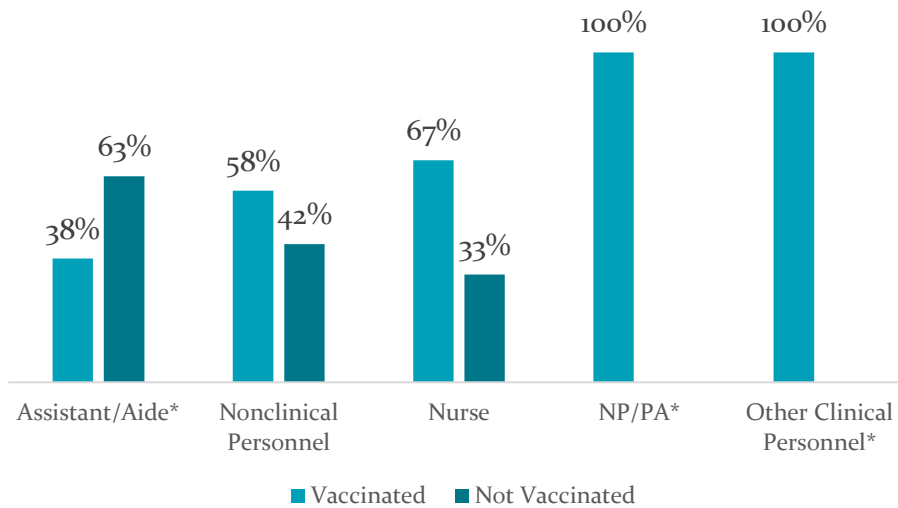
62% of surveyed HCP responded that they got the influenza vaccine during the 2017-2018 flu season, while 38% responded that they did not get the influenza vaccine.

Professional Role of Surveyed HCP (n=128)

The majority of survey respondents were nurses (41%) or nonclinical personnel (48%).



Influenza Vaccination by Professional Role

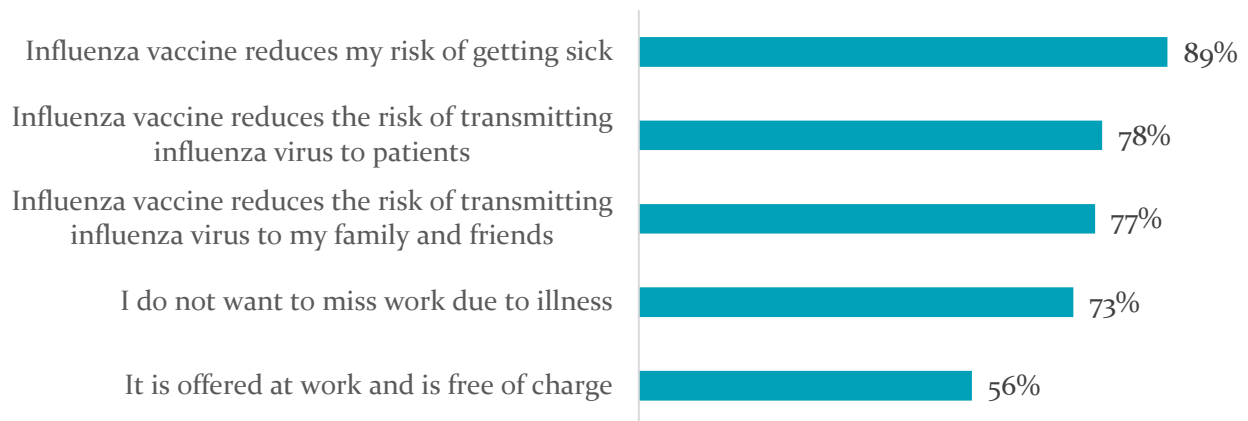


67% of nurses (n=52) and 58% of nonclinical personnel (n=61) reported getting their influenza vaccine.

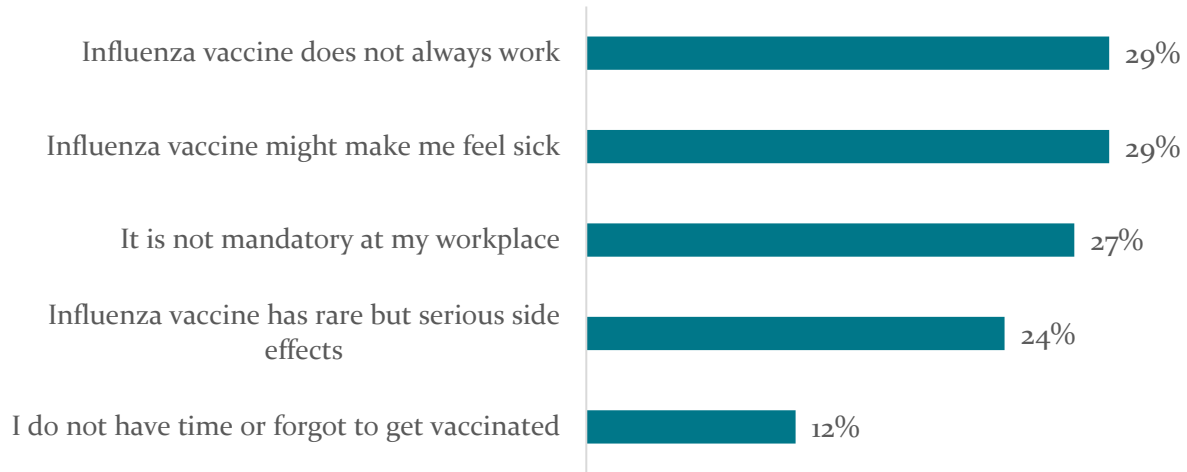
*sample size less than 10

Survey respondents were asked to select all the reasons that they did or did not get their influenza vaccine during the 2017-2018 influenza season.

Top 5 reasons why HCP received their influenza vaccine during last flu season (n=82)



Top 5 reasons why HCP did not receive their influenza vaccine during last flu season (n=51)



95%

of survey respondents said they regularly recommend the influenza vaccine to their patients if applicable.



33% of survey respondents work in a facility in an urban location.



22% of survey respondents work in a facility in a suburban location.



45% of survey respondents work in a facility in a rural location.

Influenza and Influenza Vaccination Campaign Background Information

Influenza is a significant public health issue. Every year, flu affects millions of people. It causes 140,000 – 710,000 hospitalizations and 12,000 – 56,000 deaths¹. The most important prevention measure for influenza is getting an annual influenza vaccination. From 2005-2011 it is estimated that influenza vaccination averted approximately 13.6 (CI 8.0–22.8) million illnesses, 5.8 (CI 3.4–10.1) million medical visits, and 112,900 (CI 65,000–191,500) influenza-related hospitalizations.² People who have the flu often feel some or all of the following signs and symptoms: fever, cough, sore throat, runny or stuffy nose, muscle or body aches, headaches, and fatigue. However, not everyone with flu will have fever.¹ Most experts think that flu viruses are spread by droplets made when people with flu cough, sneeze, or talk. Those droplets can land in mouths or noses of people nearby (up to 6 feet away) or be inhaled into lungs.¹ Most healthy adults are able to spread influenza one day before their symptoms develop and 5-7 days after becoming sick, while some people with weakened immune systems might be able to infect others for even longer.¹

Influenza poses a unique threat to people ages 65 and older. People over 65 have an increased risk of complications from influenza and should be vaccinated to be protected. It's estimated that 71%-85% of seasonal flu-related deaths, and 54%-70% of seasonal flu-related hospitalizations, have occurred in people 65 years and older². Complications from flu can be moderate like sinus and ear infections or serious like pneumonia.¹ Other examples of possible serious complications triggered by influenza

include inflammation of the heart (myocarditis), brain (encephalitis), or muscle (myositis, rhabdomyolysis) tissues and multi-organ failure (for example, respiratory and kidney failure). Flu virus infection of the respiratory tract can trigger an extreme inflammatory response in the body and can lead to sepsis.¹ Influenza virus can also cause worsening of chronic medical conditions, such as congestive heart failure, asthma, or diabetes.¹

The United States Department of Health and Human Services (HHS) has set a goal for all health care facilities to reach a 90% influenza vaccination rate of all health care personnel (HCP) each flu season. Long-term care facilities especially need to be vaccinated because many of their residents are at-risk populations for complications of influenza. However, health care personnel working in long-term care facilities have the lowest rates of influenza vaccination compared to other types of health care facilities. During the 2016-17 flu season, 68% of long-term care personnel were vaccinated compared to the overall health care personnel influenza vaccination rate of 78.6%³.

Influenza outbreaks in long-term care facilities have substantial societal and financial costs. It's estimated that each year, between 13% and 14% of skilled nursing homes report an influenza outbreak^{4,5}. During a confirmed outbreak, it's estimated that 33% of residents and 23% of staff develop an influenza-like illness. Among affected residents, an estimated 14% are hospitalized and 6% die⁶. Vaccinating health care personnel against influenza is an important step in protecting residents. Even when patient vaccination coverage is high, increased vaccination rates of health care personnel have been shown to reduce mortality of nursing home residents by 30%-40%⁷⁻⁹. One study of 44 long-term care facilities showed that facilities participating in the intervention to increase vaccination rates (48.2% HCP vaccination rate) showed significant reduction in

mortality of residents and influenza-like illness consultations than the control facilities (5.9% HCP vaccination rate).⁹ The reduction was “equivalent to preventing five deaths, two admissions to hospital with influenza-like illness, seven general practitioner consultations for influenza-like illness, and nine cases of influenza-like illness per 100 residents during the period of influenza activity. The numbers of staff vaccinations needed to prevent one death, one case of influenza-like illness, one general practitioner consultation for influenza-like illness, and one admission to hospital with influenza-like illness were 8, 5, 6, and 20”⁹. Another study found that health care personnel vaccination levels of 60% or greater led to significant decrease in risk of nursing home influenza outbreaks¹⁰.

In addition to improving the health of residents, influenza vaccination of health care personnel has been shown to be highly cost effective for facilities in reducing medical costs and indirect costs such as reduced work productivity. The National Foundation for Infectious Diseases (NFID) cites one study where health care personnel “who received the influenza vaccine had 25% fewer episodes of respiratory illness, 43% fewer days of sick leave from work due to respiratory illness, and 44% fewer visits to physicians' offices for upper respiratory illness than those who received a placebo”¹¹. “The Centers for Disease Control and Prevention (CDC) finds that vaccination could result in 13%–44% fewer health-care provider visits, 18%–45% fewer lost workdays, 18%–28% fewer days working with reduced effectiveness, and a 25% decrease in antibiotic use for influenza-like illness.¹² In addition, vaccination may contribute to \$60–\$4,000 savings per illness in healthy adults under 65 years of age depending on the cost of vaccination, the influenza attack rate, and

vaccine effectiveness against influenza-like illness”¹². Health care personnel vaccination protects residents of long-term care facilities and can reduce costs to the medical facility.

Multiple professional health organizations such as CDC, NFID, and The National Vaccine Advisory Committee (NVAC) have identified evidence-based approaches to increasing influenza vaccination rates among health care personnel. With comprehensive influenza vaccination programs, health care facilities including long-term care facilities have been able to consistently reach the HHS goal of 90% health care personnel influenza vaccination rates. A comprehensive influenza prevention plan should include education and campaigns, improved access to vaccination, role models of senior staff or opinion leaders, and measurement and feedback¹².

Education and Campaigns: Basic knowledge about influenza and influenza vaccination varies among health care personnel and has been associated with receipt of the influenza vaccine¹². Participation in structured in-service education or conference has also been associated with improved vaccination rates among health care personnel ¹². In a meta-analysis of studies about why health care personnel do not get the influenza vaccine, two major reasons were identified. “The first was a wide range of misconceptions or lack of knowledge about influenza and its risks for patients, including the potential risk of transmission by HCW to their patients, and about the vaccine’s effectiveness and safety”¹³. When conducting a vaccine campaign, studies show that self-protection is the most important reason health care personnel give for influenza vaccine acceptance¹³. The second most common reason contributing to low health care personnel vaccine uptake was a lack of convenient access to influenza vaccine¹³.

Improved Access: Removing barriers for health care personnel like cost and improving access by providing the vaccine at work over multiple days and work shifts and in different areas of the facility can substantially improve vaccine acceptance¹². During the 2016-17 flu season, 76.5% of all health care personnel who received their influenza vaccine were vaccinated at their workplace³. However, 30.5% of health care personnel working at long-term care facilities reported that their employer did not require, provide, or promote vaccination³. This was the highest rate of any health care facility type. Improved access and convenient availability of the influenza vaccine can increase vaccine uptake without a requirement. During the 2016-17 flu season, among the health care personnel who worked in facilities that did not have a requirement, “coverage was higher among those who worked in locations where vaccination was available at the worksite at no cost for >1 day (80.3%) than among those with vaccination available for 1 day only (73.8%) or among those who worked in locations where their employer did not provide influenza vaccination on-site at no cost but actively promoted vaccination through other mechanisms (70.4%)”³.

Role Models: Vaccinating senior medical staff or other staff opinion leaders has been associated with higher vaccine acceptance among health care personnel under that leadership³.

Measurement and Feedback: Measuring vaccine acceptance of health care personnel and gathering feedback from staff is another recommended component of a successful vaccination program. The Advisor Committee of Immunization Practices suggests monitoring vaccine coverage by facility area or occupational group to pinpoint areas where vaccination is low and target future interventions¹². Gathering feedback from staff

who decline to be vaccinated can help target future topics of educational campaigns. A meta-analysis reported that the five most frequently reported categories for vaccine refusal included “1) fear of adverse reactions; 2) lack of concern (i.e., perception that influenza does not pose a serious public health risk); 3) inconvenient delivery; 4) lack of perception of own risk; and 5) doubts regarding vaccine efficacy”¹³.

Influenza can be a serious threat to residents at long-term care facilities, and vaccinating health care personnel can help reduce that threat to residents and be cost effective at the same time. There are evidence-based strategies to overcoming barriers to achieving the HHS goal of health care personnel vaccination of 90%. Using a comprehensive education campaign, improving access for health care personnel to get vaccinated, having facility role models, measuring vaccination rates, and reporting feedback can all contribute to successful health care personnel vaccination campaigns and a safer facility for both residents and staff.

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Achieving and Sustaining High Rates of Influenza Immunization Among Long-Term Care Staff

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Background: Influenza causes significant morbidity and mortality in long-term care facilities. Immunization of health care workers has been shown to reduce the impact of influenza in this setting, yet few studies address improvement efforts aimed at long-term care staff immunization.

Objective: To determine the feasibility of achieving and sustaining high rates of staff influenza immunization for a community-based long-term care facility.

Methods: A needs analysis was conducted to determine the organizational and individual level barriers to influenza vaccination of staff. Systems changes, educational interventions, and reminders were implemented based on the barriers assessment. Staff immunization rates were calculated over a 10-year period from 1996 to 2006.

Results: Organizational and individual barriers were identified and targeted. Using data from 1996 and 1997 as a baseline, staff immunization rates improved from 54% to 55% to between 74% and 95% over the past 4 years.

Conclusions: Achieving and sustaining high staff influenza immunization rates is possible in a community-based long-term care facility with an involved quality improvement team and medical director. (*J Am Med Dir Assoc* 2007; 8: 128–133)

Keywords: Nursing homes; immunization programs; influenza; health care workers

Influenza remains a major source of morbidity and mortality in the United States, with approximately 114,000 hospitalizations and more than 36,000 deaths each year.^{1,2} Older adults are particularly at risk given that 90% of influenza deaths occur in those aged 65 years and older.³ Long-term care (LTC) facilities, which generally have older and frailer resident populations, can experience attack rates of up to 60% and case fatality rates as high as 55%.^{4–7} Given the seriousness of such outcomes, prevention of influenza in LTC facilities is of paramount importance.

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While resident immunization is the cornerstone of primary prevention efforts, influenza outbreaks may still occur despite optimal resident immunization rates.^{8,9} Health care worker vaccination is an overlooked primary prevention strategy in LTC settings. Healthcare worker vaccination is thought to reduce the risk of residents getting influenza in at least 2 different ways. First, by reducing the likelihood of the employee introducing influenza into the facility (ie, acting as the source vector), and second, by reducing the likelihood of transmission of influenza from resident-to-resident once influenza has been established in the facility.

Results of 2 recent studies have shown that staff immunization in LTC facilities reduced mortality by 40%. The effective health care worker vaccination rates associated with decreased mortality in these 2 studies were 60% and 50.9%.^{10,11} Despite these 2 successful immunization interventions, health care worker influenza vaccination in the United States remains suboptimal with current national estimates ranging from 34% to 40%.^{1,12,13}

Published immunization improvement efforts show modest improvements in vaccination rates among staff, most do not involve LTC facilities, and rarely do rates reach 60%.^{14–16} One older LTC facility intervention study that used an annual educational intervention, a “vaccination fair,” was able to improve rates from 8% to 54% over 2 years.¹⁷ The only randomized intervention study to date, which compared ed-

ucation and access to free vaccine with placebo in LTC facilities, increased rates 2-fold to 53%.¹⁸ To our knowledge, no studies have reported sustained LTC staff vaccination rates greater than 60%, which has been shown to reduce mortality. There is a need for novel, comprehensive approaches to improving staff vaccination rates and this has been echoed by others.^{19,20} The purpose of this paper is to address the following practical questions: (1) can any nonacademic, community-based, LTC facility achieve staff vaccination rates in excess of 60%, and if so (2) can these rates be sustained over time? To this end, we report on our clinical experience over the past 10 years in reaching and sustaining staff vaccination rates above 60%.

METHODS

Study Population/Setting

The Baptist Homes of Western Pennsylvania is a 300-bed nonprofit multilevel campus providing independent living, assisted living, and nursing facility services. The facility is nonacademic and community based, with more than 200 nonunionized employees. The physical structure consists of 3 interconnected buildings spanning a 12-acre campus in the urban Pittsburgh region. The medical director oversees the immunization program and works collaboratively with the entire leadership team, which is comprised of all department managers. A nurse, whose primary responsibilities are for quality improvement, is charged with overseeing administration of staff immunizations.

Needs Analysis and Barriers Assessment

In 1996, members of the quality improvement (QI) team decided that immunization rates should be a target for process improvement. Members of the QI team performed a current condition assessment in which they clarified the current staff immunization process using observation and semi-structured interviews.^{21,22} Next, under the direction of the medical director, a formal needs analysis was conducted. The goal of the needs analysis was to determine the barriers to, and drivers of, staff immunization. Barriers were categorized as either organizational or individual factors, and subsequent interventions were designed to overcome these barriers. The process followed by the QI team over the study period is consistent with that of the Veterans Administration Quality Enhancement Research Initiative (VA QUERI) and uses interventions associated with successful adult immunization programs identified by Stone and colleagues.^{23,24}

Staff immunization rates (SIR) are reported from 1996, when staff immunization rates were first targeted for improvement, to 2006. Staff immunization rates are defined as the number of facility employees receiving the flu shot divided by the total number of facility employees multiplied by 100 to give a percentage. Facility employees include all paid employees hired by the facility, including part-time and dietary staff. Volunteer staff, agency staff, physician staff, and contracted rehabilitation, laboratory, and radiology personnel are not included in this definition, although they were offered vaccine. SIR were calculated based on information available for

Table 1. Characteristics of Current Facility Staff

Demographics	Percentage (n = 236)
Position	
Nursing	59
Dietary	15
Housekeeping	4
Laundry	2
Maintenance	6
Activities, social work, wellness	7
Administration	7
Race	
White	81
African American	18
Other	<1
Age, y	
<20	3
20–29	12
30–39	15
40–49	29
50–59	28
60–69	12
70–79	1

December 31 of each year. This date was chosen based on our observations of this and other immunization programs over the past decade: most staff electing immunization do so by December.

Institutional review board approval was not solicited because this immunization program was deemed a QI project based on the University of Pittsburgh's QI criteria.

RESULTS

Study Population

Demographic information describing the facility's current staff is presented in Table 1. Ages of the staff range from 16 to 75 years. Staff turnover rates for the study period ranged between 21% and 44%, with an average of 34%. The specific nurse directly responsible for staff immunizations has changed 3 times over the time period, while the medical director remained the same for the first 9 years of the study period.

Initial Immunization Process

At baseline, the immunization program included 4 primary tasks: (1) vaccine ordering, (2) staff notification, (3) vaccine administration, and (4) record keeping. In the vaccine-ordering stage, vaccine supplies were negotiated with various suppliers who delivered the vaccine in September of each year. Staff was notified about vaccination availability by department managers and by flyers posted at various sites in the facility. No information on the benefits of immunization was included in the flyers. Vaccine was administered at no charge during limited daytime hours. Facility policy required the vaccine to be administered only with a physician onsite at the facility. Vaccine was offered through December, or until supplies were exhausted. Records were kept for those consenting to the vaccine, but were not reported back to the QI or infection control team.

Table 2. Barriers to Immunization Performance

Organizational barriers to better immunization performance
<ul style="list-style-type: none"> • Inadequate vaccine supplies • General vaccine inaccessibility • Lack of positive incentives for immunization • Requirement of written consent • Limited record keeping • Lack of any feedback or shared learning
Individual barriers to better immunization performance
<ul style="list-style-type: none"> • Limited leadership knowledge and support • Poor staff knowledge about influenza • Negative staff attitudes about the vaccine and injections

Barriers Identified

Organizational barriers included inadequate vaccine supplies; general vaccine inaccessibility; lack of positive incentives for immunization; requirement of written consent to receive the vaccine; limited record keeping; and lack of any feedback or shared learning. Individual barriers included limited leadership knowledge and support; poor staff knowledge about influenza; negative staff attitudes about the vaccine and injections (Table 2).

Systems Changes Made Based on Barriers Assessment

The process developed and followed by the leadership team over the study period is shown in Figure 1. Interventions included system changes, educational interventions, and reminders. System changes were actions taken to alter the way vaccines were obtained, delivered, and tracked at the facility. Educational interventions included verbal or written information, and were both informal and formal in format. Reminders made facility staff aware of the start of the flu season, availability of the vaccine, and the need to be immunized. As changes were made, immunization rates were monitored and feedback provided to the QI team, facility leadership, and all staff.

Organizational barriers were addressed through system changes and education. Individual barriers were addressed through educational efforts and reminders. Our current program addressed these barriers and is divided into the following tasks:

- Vaccine Planning:** To accurately estimate vaccine supply, the team reviews prior year usage, sets target immunization goals, and considers potential staff turnover rates. The facility has committed to a regular supplier and routinely orders the vaccine in the spring quarter of the year.
- Staff Education:** Staff and department managers are provided ongoing education about the impact of influenza on LTC residents, the ability of the vaccine to reduce resident mortality, and vaccine safety. Education is provided through both formal (in-services and informational flyers) and informal (point of contact conver-

sations with individual staff by the medical director or any leadership team member) processes. Also, general information about the vaccine, including risks and benefits are provided to the staff at time of administration.

- Leadership Commitment:** Department managers are accountable to the QI leadership team for discussing influenza immunization in one of their staff meetings and following up with nonresponders. Department performance is reviewed at QI meetings.
- Staff Notification:** Each September, paycheck notices and leadership personnel remind staff how to get the vaccine.
- Vaccine Administration:** Each October, the QI coordinator begins vaccinations directly at employee work units, during all shifts, and throughout the entire flu season. The requirements for an onsite physician and written consent were removed. Starting in 2002, all staff who refuse the vaccine must sign a written refusal stating they have been offered the immunization. This form is referred to as the *refusal consent*. A copy is provided in Appendix.
- Nonresponder Notification:** Those staff failing to receive the vaccine, regardless of reason, are contacted and must either elect the vaccine or sign the *refusal consent*.
- Data Tracking:** Nursing staff maintain accurate administration records including date administered, site, lot number, and expiration date for the vaccine administered. Potential adverse reactions are referred to the medical director and reported according to established recommendations.²⁵
- Continual Performance Feedback and Shared Learning:** Feedback on facility performance is provided to all staff by the medical director through QI reporting, paycheck mailings, and flyers. The medical director also monitors and reports to the facility outbreak information posted on the Centers for Disease Control and Prevention (CDC) (www.cdc.gov/flu) or local public health department Web sites.

Impact on Immunization Rates Over Time

SIR are presented in Figure 2. SIR increased over the study period from a low of 54.0% in 1996, to a high of 95.5% in

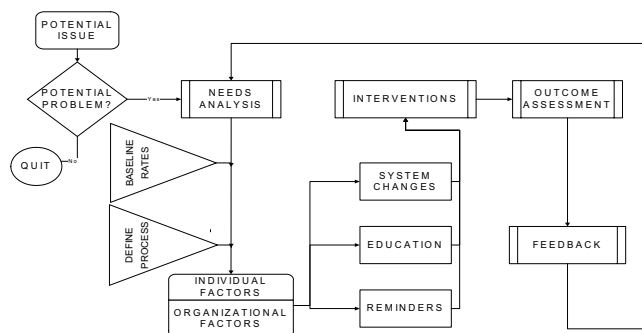
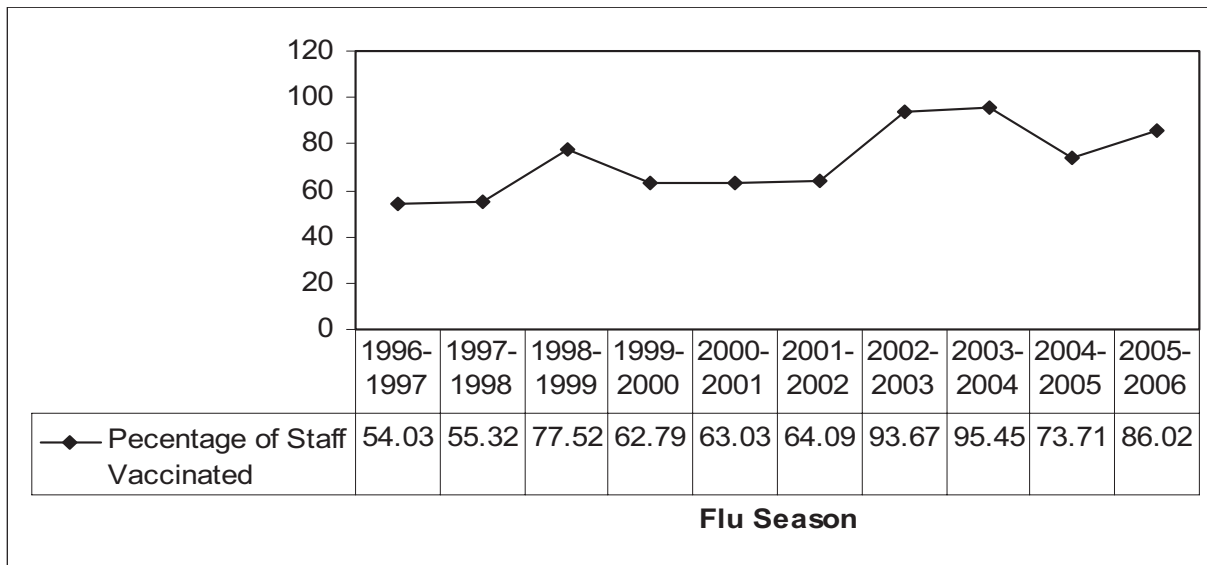


Fig 1. Process for organizational change.



	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
No. Staff	211	235	218	215	211	220	221	242	232	236
No. Vaccinated	114	130	169	135	133	141	207	231	171	203
Percent Vaccinated (%)	54.03	55.32	77.52	62.79	63.03	64.09	93.67	95.45	73.71	86.02

Fig 2. Staff immunization rates: 1996–2006.

2003. Rates remained high, even during the 2004–2005 season when a severe national vaccine shortage occurred. As noted, nonemployee staff including volunteer staff; agency staff; physician staff; and contracted rehabilitation, laboratory, and radiology personnel were not included in the SIR calculations. The nonemployee staff population is relatively small and includes approximately 20 volunteers, 5 rehabilitation staff, 3 to 5 laboratory and radiology staff, and 10 physicians at the facility. Of the physicians, 3 provide care to 90% of the facility residents and all received vaccine.

DISCUSSION

Our experience demonstrates that it is possible for a nonacademic community-based LTC care facility to both achieve and sustain high influenza immunization rates. To the best of our knowledge, the staff immunization rates achieved in this study are the highest reported in the literature and also represent the longest follow-up period for any LTC facility to date. Further, this paper provides practical observations on the steps taken to reach these goals.

One potential explanation of our high rates of staff immunization could be attributed to the facility leadership committing resources each year to the immunization process. We have shown elsewhere that leadership support in the LTC environment is critical to the success of QI projects and failure of this support is highly probable given the unique, tightly regulated structure and nature of the LTC industry.²⁶

Another potential explanation of our high staff immu-

nization rates could be attributed to staff turnover rates that are slightly lower than the national average.²⁷ The relationship between staff turnover rates and SIR is not known; however, lower staff turnover has been shown to be associated with better patient outcomes.²⁸ One could postulate that facilities with lower turnover rates have greater “institutional memory,” which may increase the chance that a particular care process is maintained from year to year. A study of factors affecting influenza vaccine uptake in German LTC facilities supports this concept. This study showed a carryover effect in which interventions done to improve vaccine uptake during one year seemed to have positive effects in subsequent years.²⁹

Another potential explanation for the continued and sustained increase in immunization rates, especially over the past 4 years, could be the use of refusal consent forms started in 2002. Refusal consents have been recommended by several organizations, including The Society for Healthcare Epidemiology of America, and the Occupational Safety and Health Administration’s (OSHA) Bloodborne Pathogens and Needlestick Prevention program.^{30,31} Refusal consent forms should be particularly effective since they are both a systems change (effective for organizational barriers) and an educational reminder (targeting individual barriers), consistent with recommendations of other authors.³² Also, as an educational reminder, a simple refusal consent represents a targeted communication. Targeted communication has been shown to increase vaccine uptake 2-fold.³³

Limitations

Although we provide a description of the processes taken and barriers addressed to improve our performance, this information is only observational. The impact of each individual intervention addressed by our group cannot be quantified, since multiple changes were often made at once. Because the results are from a single facility, we do not know their generalizability to other facilities. Other facilities will need to consider the specific barriers they face. However, the specific steps used in our QI efforts are consistent with other published studies showing improvements in immunizations and preventive services when health care organizations employ the use of organization changes, reminder systems, and education.^{18,24}

There is no consensus in the literature that defines which staff should be included when reporting SIR; however, our definition is similar to or more inclusive than that used in other studies.^{10,11,15–17} Consistent with the majority of these studies, we did not include volunteer staff; physician staff; and outside rehabilitation, laboratory, and radiology personnel in the staff immunization rate calculations. These staff represent a small portion of the total staff, and accurate vaccination records were not available for our analysis. Agency nursing staff were also excluded in the calculation of SIR since they rarely worked in this particular facility. This may reduce the generalizability of our results to other facilities that regularly use agency staff.

We used a single point prevalence estimate in December of each year to report the SIR. This method is consistent with other published studies, although it could lead to an erroneously high or low estimate for the SIR rates each year owing to staff turnover occurring after this date.¹⁶ However, following our cutoff, only 3 months remain during the influenza season making the number of potential new staff members hired low, especially considering the turnover rate of this facility. More importantly, given the lag of several weeks between the actual immunization and the generation of an immune response in an individual, it is important to measure staff rates just before the height of flu season, which typically occurs after December of each year.

A potential confounder is that the Pennsylvania state legislature enacted legislation in 2003 requiring facilities to offer vaccine to their staff (Long-Term Care Resident and Employee Immunization Act 95, 2003). However, we do not believe this has had an impact on our findings for 2 reasons. First, a published analysis of the impact of similar legislation in Tennessee nursing facilities found no difference in immunization rates.³⁴ Second, Pennsylvania has incorporated mandatory reporting of facility staff immunization rates, but this change has not improved immunization rate uptake. In fact, rates actually declined from 32% to 21% during the first 3 years of reporting (B. Showalter, Personal communication, June 7, 2006).

Strengths

This study covers a LTC facility's immunization improvement efforts spanning a 10-year period. Even during the national vaccine shortage of 2004–2005, this facility was able

to reach a staff immunization rate of 72%. National data from this same time period demonstrated a significant decrease in LTC staff immunization rates.³⁵ Unlike many other studies, we calculate SIR using the actual vaccination rosters that can be verified, rather than relying on self-reported survey data, which is subject to recall and ascertainment bias. Staff turnover is lower than the national average, which contributes to organizational stability, institutional memory, and organizational change efforts. These collectively support the role of a proactive, supportive interdisciplinary LTC QI team that includes an involved medical director consistent with Institute of Medicine recommendations on physician involvement.³⁶

Implications and Further Research

Further research is needed to determine if these immunization rates could be achieved and sustained in facilities with differing characteristics such as unionization status, profit status, and turnover rates. Future studies should also be conducted to determine the impact of individual components of our multicomponent intervention such as the use of refusal consent forms on staff immunization rates. This information may help guide other facilities to improve their SIR by selecting changes that are most likely to improve the SIR.

CONCLUSION

In summary, it is possible for nonacademic, community-based LTC facilities to achieve and sustain high SIR with a supportive QI and leadership team. Our experience can provide suggestions and tools that can be used by other health care organizations to improve staff immunization programs.

ACKNOWLEDGMENTS

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APPENDIX 1.

Refusal consent form

VACCINATION FORM

2005-2006
Flu Season

RECEIVED FLU VACCINE

I previously received the influenza flu vaccine and therefore decline the immunization at this time.

Date received _____

Signature _____ Printed Name _____

Date
(Resident, Responsible Person or Employee)

DECLINED FLU VACCINE

I have been offered the flu vaccine, however, decline at this time. I realize that:

- the flu shot does not give me the flu
- the flu shot may help me from getting sick with the flu
- the flu shot may help prevent me from giving the flu to someone else
- the flu can cause serious illness in residents
- Reason for refusal _____

Signature _____ Printed Name _____

Date
(Resident, Responsible Person or Employee)

Barriers and Strategies to Improving Influenza Vaccination Among Health Care Personnel

Barriers	Strategies to Overcome Barriers
Lack of access to influenza vaccine	<ul style="list-style-type: none"> • Provide free vaccine at the workplace • Offer vaccine at multiple times and locations convenient to all workers on all shifts during the flu season • Use a mobile vaccination cart to take influenza vaccinations to staff • Provide staff with a voucher for vaccination at a drugstore or clinic • Partner with a larger health care organization (e.g., hospital) to provide vaccinations • Work with pharmacy consultants to offer influenza vaccinations for facility staff • Work with visiting nurses associations or other community immunizers to provide vaccination on-site • Offer influenza vaccine at mandatory trainings, departmental conferences, and other meetings
Beliefs <ul style="list-style-type: none"> • Belief that influenza is not a serious illness/not a risk for young or healthy people • Believe that influenza vaccine is not effective • Belief that influenza vaccine causes illness/side effects • Fear of injections 	<ul style="list-style-type: none"> • Provide a strong educational program for staff. <ul style="list-style-type: none"> ○ Focus on protecting the worker and their family as well as the residents in the educational materials ○ Share CDC's Influenza Vaccine Information Statements ○ Share the Joint Commission's Influenza and Influenza Vaccine Myths and Reality ○ Use a declination form to learn why staff are declining vaccination to focus your own messages ○ Ask vaccinated health care personnel to encourage their coworkers to get vaccinated
Lack of enthusiasm about influenza vaccination	<ul style="list-style-type: none"> • Establish a culture of prevention in your organization with the following ideas <ul style="list-style-type: none"> ○ Publicize a “vaccine day” in combination with education to offer influenza vaccinations ○ Emphasize that flu vaccination protects the employees, their loved ones and those they work with

	<ul style="list-style-type: none"> ○ Encourage employees to set an example; remind them that their action and recommendation carries a lot of weight in others' decisions to get vaccinated ○ Encourage employees via e-mail, posters, an employee newsletter, and any other communication tools used in your workplace to get the vaccine ○ Track and report vaccination rates to staff and supervisors ○ Remind unvaccinated employees with e-mail, letters, encouragement from supervisors, and telephone calls ○ Provide contests or incentives to get vaccinated (small gift cards, raffles, pizza party, etc.) ○ Vaccinate the medical director and all managers in front of the staff ○ Foster team building to increase trust and cooperation <ul style="list-style-type: none"> ▪ Team building may lead to increased compliance with organizational goals including immunization
High staff turnover	<ul style="list-style-type: none"> ● Offer influenza vaccination education multiple times during the flu season ● Offer opportunities to be vaccinated at multiple times and locations convenient to all workers on all shifts during the flu season ● Educate and vaccinate staff as part of new employee orientations ● Establish a process to determine and track proof of influenza vaccination each year for each employee ● Establish a written influenza vaccination policy for employees ● Work with pharmacy consultants to offer influenza vaccination for facility staff, as a standard procedure
HCP represent diverse cultures	<ul style="list-style-type: none"> ● Access guidance from the HHS National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care ● Provide educational materials in multiple languages including <ul style="list-style-type: none"> ○ CDC's Vaccine Information Statements ○ Flu information: MedlinePlus ● MedlinePlus provides tutorials and videos on health topics that might be good for low literacy groups

Lack of centralized workplace	<ul style="list-style-type: none">• Educate and vaccinate staff as part of new employee orientation, training, and meetings• Establish a process to determine and track proof of influenza vaccination each year for each employee
Lack of incentive for employer to cover cost of influenza vaccination	<ul style="list-style-type: none">• LTC organizations could advertise high HCP influenza vaccination rates to consumers to indicate patient safety

<https://www.cdc.gov/flu/toolkit/long-term-care/strategies.htm>

Influenza (Flu) Vaccine (Inactivated or Recombinant): *What you need to know*

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite www.immunize.org/vis

1 Why get vaccinated?

Influenza (“flu”) is a contagious disease that spreads around the United States every year, usually between October and May.

Flu is caused by influenza viruses, and is spread mainly by coughing, sneezing, and close contact.

Anyone can get flu. Flu strikes suddenly and can last several days. Symptoms vary by age, but can include:

- fever/chills
- sore throat
- muscle aches
- fatigue
- cough
- headache
- runny or stuffy nose

Flu can also lead to pneumonia and blood infections, and cause diarrhea and seizures in children. If you have a medical condition, such as heart or lung disease, flu can make it worse.

Flu is more dangerous for some people. Infants and young children, people 65 years of age and older, pregnant women, and people with certain health conditions or a weakened immune system are at greatest risk.

Each year **thousands of people in the United States die from flu**, and many more are hospitalized.

Flu vaccine can:

- keep you from getting flu,
- make flu less severe if you do get it, and
- keep you from spreading flu to your family and other people.

2 Inactivated and recombinant flu vaccines

A dose of flu vaccine is recommended every flu season. Children 6 months through 8 years of age may need two doses during the same flu season. Everyone else needs only one dose each flu season.

Some inactivated flu vaccines contain a very small amount of a mercury-based preservative called thimerosal. Studies have not shown thimerosal in vaccines to be harmful, but flu vaccines that do not contain thimerosal are available.

There is no live flu virus in flu shots. **They cannot cause the flu.**

There are many flu viruses, and they are always changing. Each year a new flu vaccine is made to protect against three or four viruses that are likely to cause disease in the upcoming flu season. But even when the vaccine doesn’t exactly match these viruses, it may still provide some protection.

Flu vaccine cannot prevent:

- flu that is caused by a virus not covered by the vaccine, or
- illnesses that look like flu but are not.

It takes about 2 weeks for protection to develop after vaccination, and protection lasts through the flu season.

3 Some people should not get this vaccine

Tell the person who is giving you the vaccine:

- **If you have any severe, life-threatening allergies.**

If you ever had a life-threatening allergic reaction after a dose of flu vaccine, or have a severe allergy to any part of this vaccine, you may be advised not to get vaccinated. Most, but not all, types of flu vaccine contain a small amount of egg protein.

- **If you ever had Guillain-Barré Syndrome (also called GBS).**

Some people with a history of GBS should not get this vaccine. This should be discussed with your doctor.

- **If you are not feeling well.**

It is usually okay to get flu vaccine when you have a mild illness, but you might be asked to come back when you feel better.



4 Risks of a vaccine reaction

With any medicine, including vaccines, there is a chance of reactions. These are usually mild and go away on their own, but serious reactions are also possible.

Most people who get a flu shot do not have any problems with it.

Minor problems following a flu shot include:

- soreness, redness, or swelling where the shot was given
- hoarseness
- sore, red or itchy eyes
- cough
- fever
- aches
- headache
- itching
- fatigue

If these problems occur, they usually begin soon after the shot and last 1 or 2 days.

More serious problems following a flu shot can include the following:

- There may be a small increased risk of Guillain-Barré Syndrome (GBS) after inactivated flu vaccine. This risk has been estimated at 1 or 2 additional cases per million people vaccinated. This is much lower than the risk of severe complications from flu, which can be prevented by flu vaccine.
- Young children who get the flu shot along with pneumococcal vaccine (PCV13) and/or DTaP vaccine at the same time might be slightly more likely to have a seizure caused by fever. Ask your doctor for more information. Tell your doctor if a child who is getting flu vaccine has ever had a seizure.

Problems that could happen after any injected vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit: www.cdc.gov/vaccinesafety/

5 What if there is a serious reaction?

What should I look for?

- Look for anything that concerns you, such as signs of a severe allergic reaction, very high fever, or unusual behavior.

Signs of a severe allergic reaction can include hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, and weakness. These would start a few minutes to a few hours after the vaccination.

What should I do?

- If you think it is a severe allergic reaction or other emergency that can't wait, call 9-1-1 and get the person to the nearest hospital. Otherwise, call your doctor.
- Reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your doctor should file this report, or you can do it yourself through the VAERS web site at www.vaers.hhs.gov, or by calling **1-800-822-7967**.

VAERS does not give medical advice.

6 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines.

Persons who believe they may have been injured by a vaccine can learn about the program and about filing a claim by calling **1-800-338-2382** or visiting the VICP website at www.hrsa.gov/vaccinecompensation. There is a time limit to file a claim for compensation.

7 How can I learn more?

- Ask your healthcare provider. He or she can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636 (1-800-CDC-INFO)** or
 - Visit CDC's website at www.cdc.gov/flu

Vaccine Information Statement
Inactivated Influenza Vaccine

08/07/2015

42 U.S.C. § 300aa-26

Office Use Only



Influenza and Influenza Vaccine Myths and Reality

Myth	Reality
The flu vaccine can cause influenza.	<p>The injectable flu vaccine does not contain the live virus so it is impossible to get influenza from the vaccine. Side effects may occur in some people, such as mild soreness, redness, or swelling at the injection site, headache, or a low-grade fever. The nasal spray flu vaccine contains live, attenuated (weakened) viruses that can cause mild signs or symptoms such as runny nose, fever, sore throat, and nasal congestion. This vaccine, however, cannot cause influenza infection in the lower respiratory tract.</p> <p>Vaccination is safe and effective, and the best way to help prevent influenza and its complications. ¹</p>
The flu shot doesn't work.	<p>The influenza vaccine will prevent influenza most of the time. In scientific studies, the effectiveness of the vaccine ranges from 70 to 90 percent, depending on how well the circulating viruses match those in the vaccine. In populations in which the vaccine is less effective in preventing influenza, such as the elderly, the vaccine reduces the severity of the disease and the incidence of complications by 50 to 60 percent and the incidence of death by approximately 80 percent. Getting vaccinated is the most effective way to protect against influenza and its serious outcomes. ²</p>
Our staff follows Standard Precautions, with good hand hygiene practices and appropriate glove and mask use – so vaccination is not necessary.	<ul style="list-style-type: none"> • Influenza is spread by respiratory droplets generated when talking, coughing or sneezing. Adults shed influenza virus <i>at least one day before</i> any signs or symptoms of the disease, so health care personnel can unknowingly infect patients or other staff.^{3,4} • 50 percent of influenza infections can be asymptomatic, and both symptomatic and asymptomatic individuals can shed the virus and infect others. ^{5,6,7,8}
Our staff stays at home if they are sick - so vaccination is not necessary.	<ul style="list-style-type: none"> • Since unvaccinated individuals are contagious at least one day before any signs or symptoms of influenza appear, they can still shed the virus and infect patients and other staff. ^{3,4} • Unvaccinated health care personnel can become infected with influenza and not have any symptoms, and both symptomatic and asymptomatic individuals can shed the virus and infect others. ^{5,6,7,8}
There is no evidence to support that influenza vaccination of staff improves patient outcomes.	<p>Health care personnel can acquire influenza from the community or their patients and can transmit it to patients or other staff. Influenza transmission and outbreaks in health care organizations have been recognized for many years and have been associated with substantial morbidity, mortality, and costs.^{9,10,11} Influenza's short incubation period and ease of transmission through respiratory droplets from person to person can result in explosive outbreaks of febrile respiratory illness. Health care settings are favorable environments for such transmission.^{8,12} Increased rates of staff vaccination result in decreased rates of health care-associated influenza.^{10,13} In fact, one group of researchers concluded that the reduction in morbidity, mortality, and use of health service resources associated with vaccinating their long term care facility was "equivalent to preventing five deaths, two admissions to hospitals with influenza-like illness, seven general practitioner consultations for influenza-like illness, and nine cases of influenza-like illness per 100 residents during the period of influenza activity."¹³</p>
Influenza vaccinations for staff will be too costly.	<p>The cost savings associated with health care personnel influenza vaccination programs generally outweigh the costs associated with providing the vaccine, and vaccinating ultimately results in a safer environment for patients.^{5,14,15,16,17}</p>

See footnotes on next page...

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Declination of Influenza Vaccination

My employer or affiliated health facility, _____, has recommended that I receive influenza vaccination to protect the patients I serve.

I acknowledge that I am aware of the following facts:

- ◆ Influenza is a serious respiratory disease that kills thousands of people in the United States each year.
- ◆ Influenza vaccination is recommended for me and all other healthcare workers to protect this facility's patients from influenza, its complications, and death.
- ◆ If I contract influenza, I can shed the virus for 24 hours before influenza symptoms appear. My shedding the virus can spread influenza to patients in this facility.
- ◆ If I become infected with influenza, even if my symptoms are mild or non-existent, I can spread it to others and they can become seriously ill.
- ◆ I understand that the strains of virus that cause influenza infection change almost every year and, even if they don't change, my immunity declines over time. This is why vaccination against influenza is recommended each year.
- ◆ I understand that I cannot get influenza from the influenza vaccine.
- ◆ The consequences of my refusing to be vaccinated could have life-threatening consequences to my health and the health of those with whom I have contact, including
 - all patients in this healthcare facility
 - my coworkers
 - my family
 - my community

Despite these facts, I am choosing to decline influenza vaccination right now for the following reasons: _____

I understand that I can change my mind at any time and accept influenza vaccination, if vaccine is still available.

I have read and fully understand the information on this declination form.

Signature: _____ Date: _____

Name (print): _____

Department: _____

Reference: CDC. Prevention and Control of Influenza with Vaccines—
Recommendations of ACIP at www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/flu.html

Technical content reviewed by the Centers for Disease Control and Prevention

Influenza Vaccination Coverage Tally Sheet

The table below can be used for calculating the percentage of staff or residents immunized for influenza. Use the Tally Sheet for staff only or residents only, don't add the two together. For a list of valid contraindications to influenza vaccination, refer to the Vaccine Information Statement (VIS) which is given with each immunization.

Facility Name: _____

Flu Season Used for Analysis: __/__/____ to __/__/____

Chart for Staff or Residents (pick just one at a time):

	Description	Total for Facility
A	Total # of staff <u>or</u> residents receiving flu vaccine at your facility	
B	Total # of staff <u>or</u> residents receiving flu vaccine outside your facility	
C	Total # of staff <u>or</u> residents (include part time)	
D	Total # of staff <u>or</u> residents refusing flu vaccine or having valid contraindications	

1. Add A+B=_____ (total vaccinated staff or residents)
2. Divide _____ (total vaccinated staff or residents) by C
3. Multiply by 100 to get percentage (%) vaccinated:
(compare to your goal for flu vaccination coverage)

Sample Letter to Employees from Administrator

Place on your own letterhead or consider distributing via email or with paycheck

Dear Employee:

Each year on average 36,000 people die from vaccine preventable influenza and an additional 310,000 are hospitalized, despite the availability of effective annual vaccines. A large portion of these illnesses and severe complications could be prevented with vaccination.

You can protect yourself, your family and our long-term care residents from the flu and its complications by getting immunized each year. A flu vaccination may protect you from getting influenza and prevent you from passing this serious illness to our most vulnerable residents. The flu vaccine is not as effective for our residents with weakened immune response so it is important to surround them with immunized individuals to add an extra barrier of protection. Getting immunized demonstrates your professional commitment to preserving the health of our residents.

Our goal is to increase our influenza immunization rates to 90 percent or better this year. If you have any questions or concerns please contact

Thank you for making a difference and join me in getting the flu vaccine.

Sincerely,

First Do No Harm: Mandatory Influenza Vaccination Policies for Healthcare Personnel Help Protect Patients

VIEW THE COMPLETE LIST:

www.immunize.org/honor-roll/influenza-mandates

Refer to the position statements of the leading medical organizations listed below to help you develop and implement a mandatory influenza vaccination policy at your healthcare institution or medical setting. Policy titles, publication dates, links, and excerpts follow.

American Academy of Family Physicians (AAFP)

AAFP Mandatory Influenza Vaccination of Health Care Personnel (6/11)

- ▶ www.aafp.org/news-now/health-of-the-public/20110613-mandatoryfluvacc.html

"The AAFP supports annual mandatory influenza immunization for health care personnel (HCP) except for religious or medical reasons (not personal preferences). If HCP are not vaccinated, policies to adjust practice activities during flu season are appropriate (e.g. wear masks, refrain from direct patient care)."

American Academy of Pediatrics (AAP)

Influenza Immunization for All Health Care Personnel: Keep It Mandatory, a reaffirmation of AAP's policy on mandatory influenza immunization of health care personnel (Oct. 2015)

- ▶ <http://pediatrics.aappublications.org/content/136/4/809>

"Mandating influenza vaccine for all HCP nationwide is ethical, just, and necessary. For the prevention and control of influenza, we must continue to put the health and safety of the patient first."

American College of Physicians (ACP)

ACP calls for immunization for all health care providers (1/14/2013)

- ▶ www.acponline.org/newsroom/hcp_vaccinations.htm

"Proper immunization safely and effectively prevents a significant number of infections, hospitalizations, and deaths among patients as well as preventing workplace disruption and medical errors by absent workers due to illness."

American Hospital Association (AHA)

AHA Endorses Patient Safety Policies Requiring Influenza Vaccination of Health Care Workers (7/22/11)

- ▶ www.aha.org/advocacy-issues/tools-resources/advisory/2011/110722-quality-adv.pdf

"To protect the lives and welfare of patients and employees, AHA supports mandatory patient safety policies that require either influenza vaccination or wearing a mask in the presence of patients across healthcare settings during flu season. The aim is to achieve the highest possible level of protection."

American Medical Directors Association (AMDA)

Mandatory Immunization for Long Term Care Workers (3/11)

- ▶ www.amda.com/governance/resolutions/J11.cfm

"Therefore be it resolved, AMDA – Dedicated to Long-Term Care Medicine – supports a mandatory annual influenza vaccination for every long-term health care worker who has direct patient contact unless a medical contraindication or religious objection exists."

American Pharmacists Association (APhA)

Requiring Influenza Vaccination for All Pharmacy Personnel (4/11)

- ▶ www.pharmacist.com/sites/default/files/files/2011-ActionsoftheAPhAHoD-Public.pdf

"APhA supports an annual influenza vaccination as a condition of employment, training, or volunteering, within an organization that provides pharmacy services or operates a pharmacy or pharmacy department (unless a valid medical or religious reason precludes vaccination)."

American Public Health Association (APHA)

Annual Influenza Vaccination Requirements for Health Workers (11/9/10)

- ▶ www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/11/14/36/annual-influenza-vaccination-requirements-for-health-workers

"Encourages institutional, employer, and public health policy to require influenza vaccination of all health workers as a precondition of employment and thereafter on an annual basis, unless a medical contraindication recognized in national guidelines is documented in the worker's health record."

Association for Professionals in Infection Control and Epidemiology (APIC)

Influenza Vaccination Should Be a Condition of Employment for Healthcare Personnel, Unless Medically Contraindicated (2/1/11)

- ▶ www.apic.org/resource_/tinymcefilemanager/advocacy-pdfs/apic_influenza_immunization_of_hcp_12711.pdf

"As a profession that relies on evidence to guide our decisions and actions, we can no longer afford to ignore the compelling evidence that supports requiring influenza vaccine for HCP. This is not only a patient safety imperative, but is a moral and ethical obligation to those who place their trust in our care."

Infectious Diseases Society of America (IDSA)

Mandatory Immunization of Health Care Personnel Against Influenza and Other Infectious Diseases (rev. 12/10/13)

- ▶ www.idsociety.org/HCW_Policy

"Preventing healthcare-associated transmission of influenza and other infectious diseases can protect patients, HCP, and local communities. For this reason, IDSA supports mandatory immunization of HCP according to recommendations of the Advisory Committee for Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC)."

National Business Group on Health (NBGH)

Hospitals Should Require Flu Vaccination for all Personnel to Protect Patients' Health and Their Own Health (10/18/11)

- ▶ www.businessgrouphealth.org/pub/f314b0a7-2354-d714-511f-57f12807ba2c

"Hospitals should require flu vaccination for all personnel to protect patients' health and their own health."

National Patient Safety Foundation (NPSF)

NPSF Supports Mandatory Flu Vaccinations for Healthcare Workers (11/11/15)

- ▶ www.npsf.org/news/259784/National-Patient-Safety-Foundation-Supports-Mandatory-Flu-Vaccine-for-Health-Care-Workers.htm

"NPSF recognizes vaccine-preventable diseases as a matter of patient safety and supports mandatory influenza vaccination of health care workers to protect the health of patients, health care workers, and the community."

Society for Healthcare Epidemiology of America (SHEA)

Influenza Vaccination of Healthcare Personnel (rev. 8/31/10)

- ▶ www.journals.uchicago.edu/doi/full/10.1086/656558

"SHEA views influenza vaccination of HCP as a core patient and HCP safety practice with which noncompliance should not be tolerated."

Practical resources for vaccinating healthcare personnel against influenza

U.S. Department of Health and Human Services (HHS)

Influenza Vaccination of Healthcare Personnel, part of HHS' National Action Plan to Prevent Healthcare-Associated Infections: Roadmap to Elimination

► www.hhs.gov/ash/initiatives/hai/hcpflu.html

Centers for Disease Control and Prevention (CDC)

Read the joint HICPAC/ACIP Recommendations *Influenza Vaccination of Health-Care Personnel* (MMWR, 2/24/06)

► www.cdc.gov/mmwr/PDF/rr/rr5502.pdf

For more recent guidance from CDC, see *Immunization of Health-Care Personnel: Recommendations of the Advisory Committee on Immunization Practices* (MMWR, 11/25/11)

► www.cdc.gov/mmwr/pdf/rr/rr6007.pdf

Visit CDC's Influenza web section

► www.cdc.gov/flu

American Nurses Association (ANA)

Bring Immunity to Every Community webpage provides a listing of links for staff and patient educational materials, posters, and recommendations.

► www.anaimmunize.org/Main-Menu-Category/Vaccines-for-nurses/Influenza/default.aspx

Nurse-to-Nurse Influenza Vaccination video uses principles of risk communication to address the concerns of a nurse hesitant to receive influenza vaccine

► www.anaimmunize.org/flu-video

Colorado Hospital Association

Guidance for Developing a Mandatory Influenza Vaccination Program. This document is intended to provide guidance and information for developing a mandatory influenza vaccination program within individual hospitals:

► www.immunize.org/honor-roll/cha_guidance_mandatory_influenza_policy_hcp.pdf

Immunization Action Coalition of Washington Tool Kit

Make the Case toolkit promotes influenza and Tdap immunization among healthcare providers

► www.withinreachwa.org/what-we-do/healthy-communities/immunizations/providers/health-care-workers-toolkit/

National Adult and Influenza Immunization Summit (NAIS)

Co-sponsored by the National Vaccine Program Office, CDC, and the Immunization Action Coalition. Visit the Summit website:

► www.izsummitpartners.org/vaccinating-healthcare-personnel

Immunization Action Coalition • Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org

immunization
action coalition



Immunization Action Coalition (IAC)

Visit the IAC's **Influenza Vaccination Honor Roll** to view stellar examples of influenza vaccination mandates in healthcare settings:

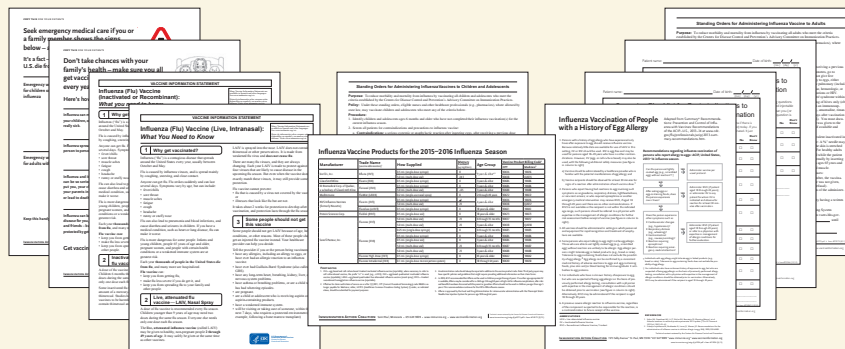
www.immunize.org/honor-roll/influenza-mandates



Visit IAC's **Influenza web section**: www.immunize.org/influenza

Get these IAC print materials online:

- Healthcare Personnel Vaccination Recommendations: www.immunize.org/catg.d/p2017.pdf
- Access Influenza Vaccine Information Statements (VISs) in more than 35 languages: www.immunize.org/vis



- How to Administer Intramuscular, Intradermal, and Intranasal Influenza Vaccines*: www.immunize.org/catg.d/p2024.pdf
- Influenza Vaccine Products for the 2015–16 Influenza Season*: www.immunize.org/catg.d/p4072.pdf
- Standing Orders for Administering Influenza Vaccine to Adults*: www.immunize.org/catg.d/p3074.pdf
- Screening Checklist for Contraindications to Inactivated Injectable Influenza Vaccination*: www.immunize.org/catg.d/p4066.pdf
- Screening Checklist for Contraindications to Live Attenuated Intranasal Influenza Vaccination*: www.immunize.org/catg.d/p4067.pdf
- Influenza Vaccination of People with a History of Egg Allergy*: www.immunize.org/catg.d/p3094.pdf
- Declination of Influenza Vaccination* (for healthcare worker refusal): www.immunize.org/catg.d/p4068.pdf

The Joint Commission

Titled *Influenza Information*, this web section provides resources for healthcare institutions, including a free monograph, *Providing a Safer Environment for Health Care Personnel and Patients through Influenza Vaccination: Strategies from Research and Practice*

► www.jointcommission.org/topics/hai_influenza.aspx

Commentary by Arthur L. Caplan, PhD

Managing the Human Toll Caused by Seasonal Influenza – New York State's Mandate to Vaccinate or Mask (JAMA, 10/1/2013)

► <http://jama.jamanetwork.com/article.aspx?articleid=1746248>

Why Hospital Workers Should Be Forced to Get Flu Shots

► www.medscape.com/viewarticle/770383 (log-in required)

Attention! Attention! All Healthcare Workers! **THIS IS NOT A TEST**

This is an Important Notice about Common Misperceptions of Influenza

MYTH #1

You are not at risk for getting influenza because you're healthy, and as someone who works in a healthcare environment, you've been exposed to so many germs that you're immune to everything.

FACT

Healthcare workers can have an increased risk of exposure to influenza due to the nature of the job.

MYTH #2

You don't have any influenza symptoms so you can't transmit the influenza virus to your patients.

FACT

Even if you don't show symptoms of having influenza yet, the virus can still be transmitted to patients. Healthcare workers infected with influenza can transmit the highly contagious virus to patients in their care, which is particularly troubling for the many patients at high-risk for influenza-related complications that can lead to serious illness, and even death. Preventing the incidence of the influenza virus protects patients and may save lives.

MYTH #3

You work in a large facility and there are many staff members who don't get vaccinated against influenza. So, one influenza vaccination won't make a difference.

FACT

You can demonstrate your leadership by getting vaccinated against influenza and show that quality of patient care is important to you. Vaccination of healthcare workers can prevent the incidence of influenza in healthcare settings. In addition, the Centers for Disease Control and Prevention (CDC) clearly states that influenza vaccination is the most effective method for preventing influenza virus infection and its potentially severe complications. Healthcare worker vaccination is important for influenza prevention and control.

MYTH #4

Getting the influenza vaccine can actually give you influenza.

FACT

Trivalent inactivated influenza vaccine (TIV) contains killed viruses and thus cannot cause influenza. However, live, attenuated influenza vaccine (LAIV) contains live, attenuated viruses and therefore does have the potential to produce mild signs or symptoms related to attenuated influenza virus infection.

MYTH #5

The influenza vaccine doesn't work.

FACT

The influenza vaccine can be expected to reduce influenza illness by approximately 70% to 90% in healthy adults less than 65 years of age, when the vaccine and circulating virus are well matched. The ability of the influenza vaccine to protect a person depends on the age and health status of the person getting the vaccine, and the similarity or "match" between the virus strains in the vaccine and those in circulation.

MYTH #6

Antibiotics can work just as well as the influenza vaccine.

FACT

The single best way to protect yourself against influenza is by getting vaccinated. Influenza is a viral infection and cannot be treated by antibiotics. Taking antibiotics when they aren't needed contributes to the serious problem of antibiotic resistance. Antibiotics are not a substitute for the influenza vaccine.

MYTH #7

By January, it's too late to get the influenza vaccine.

FACT

The CDC recommends that influenza vaccination begin as soon as healthcare providers have the vaccine in stock, and should continue throughout the influenza season, even into January. In most years the influenza season does not peak until January or February, therefore vaccination beyond December is medically beneficial and necessary in order to protect as many people as possible.



Care For Older Adults? Care About Flu!

The flu can be serious for everyone – but for adults age 65 years and older, the risk of flu-related hospitalization and complications is particularly high.

Annual influenza vaccination is essential to help protect older adults 65+ against flu. There are specifically-designed influenza vaccines available to help protect older adults.

WHAT ARE THE RISKS?

Older adults are at higher risk:

50%-70%
of flu-related hospitalizations

85%
of flu-related deaths

- Those with chronic conditions are at an even higher risk of developing serious complications
- Several weeks after recovering from flu symptoms, older adults may still be at an increased risk of a heart attack, stroke, or other cardiovascular problems
- Even if they recover from flu, older adults may never fully regain their pre-influenza health and abilities, significantly impacting their lifestyle

IMMUNOSENESCENCE

The gradual deterioration of the immune system due to aging – *immunosenescence* – results in an elevated risk of complications from flu in adults age 65 years and older. The weakened immune system makes it harder for older adults to combat disease, and decreases the immune response to standard influenza vaccines.

HOW CAN OLDER ADULTS BE PROTECTED?



The good news is that in the US, there are safe and effective influenza vaccines specifically-designed for older adults (65+). High-dose and adjuvanted vaccines are designed to overcome the effects of an aging immune system, producing an improved immune response.

WHAT ACTIONS CAN HEALTHCARE PROFESSIONALS TAKE?

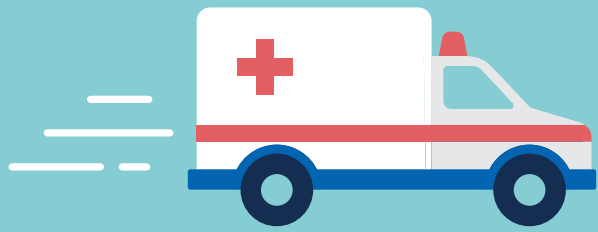


Older adults are much more likely to get a flu shot when it is offered or recommended by a healthcare professional. Talk to patients 65+ about the importance of annual flu vaccination and specific vaccines most beneficial for them.

Care For Older Adults? Care About Flu!


Adults 65+
Are At Higher Risk

50%-70%
of flu-related **HOSPITALIZATIONS**



UP TO 85%
of flu-related **DEATHS**


INCREASE
in the risk of **HEART ATTACK**
AND STROKE – even weeks
after recovery


DECLINE
in general health and abilities
MAY BE PERMANENT


Annual Vaccination Is Essential To
Protect Adults 65+ Against Flu

Boost Immune Response

Immune systems weaken with age, however
SPECIFICALLY-DESIGNED VACCINES help
PROTECT OLDER ADULTS against flu by
creating a stronger immune response



Talk To Your Patients

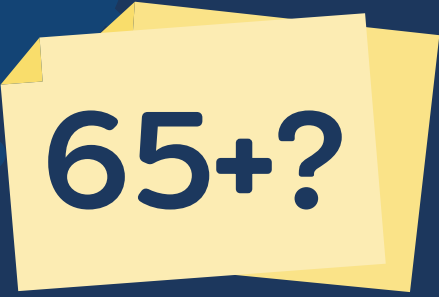


RECOMMEND VACCINATION

Older adults are much more likely to get a flu shot when it is offered or recommended by a healthcare professional

DISCUSS OPTIONS

Talk to patients 65+ about the importance of annual flu vaccination and specific vaccines most beneficial for them



65+?

Learn What's True About Flu.



1

The immune system gets stronger with age, making vaccines less important.

FALSE. The immune system gradually deteriorates over time, making it harder for our bodies to fight disease.

2

The risk of serious complications from flu increases with age.

TRUE. Adults who are age 65 years and older are at a higher risk for flu-related hospitalization, complications, and even death.

3

Age does not impact the ability to recover from flu.

FALSE. Even if they recover from flu, older adults (65+) may never fully regain pre-flu health and abilities, significantly impacting their lifestyle.

4

Adults with chronic conditions are at an even higher risk of flu-related complications.

TRUE. Several weeks after recovering from flu symptoms, older adults may still be at an increased risk of a heart attack, stroke, or other cardiovascular problems.

ASK YOUR HEALTHCARE PROFESSIONAL

about the specific influenza vaccine most beneficial for you.
#GetVaccinated to #FightFlu!

