Why Health Care Workers Decline Influenza Vaccination

by Brenda S. Moore, MSN, BSN, RN-BC

Influenza vaccine is essential to preventing influenza among health care workers and their patients. Therefore, the staff of the employee health clinic worked diligently to provide an opportunity for all employees to receive influenza vaccinations. Despite these efforts, a significant percentage of employees declined the vaccine. During the 2007-2008 influenza season, employees were instructed to either receive the influenza vaccine or decline in writing. The vaccination rate for all staff members and direct caregivers, during the 2007-2008 vaccination season, was 52%, with 35% declining and 13% not participating. In response to the 35% declining, data were analyzed to develop an effective educational tool focused on reasons for declination. This article presents an overview of the study, the reasons employees declined influenza vaccine, and strategies for improving vaccination rates.

During the 2007-2008 influenza season, institutional leaders decided that all employees, regardless of job code, should receive influenza vaccine or actively decline the vaccination. The influenza vaccine was available to employees at no cost, 24 hours a day, and in multiple locations during a period of approximately 120 days. At the completion of the vaccination program, statistics demonstrated a vaccination rate of 52%, with a declination rate of 35% and a nonparticipation rate of 13%. This study was initiated to better understand why 35% or 2,971 health care workers at the institution declined the influenza vaccination.

The primary objective of this study was to identify reasons for influenza vaccine declination by health care workers at a particular health care institution. The ultimate goal was to use this information to change the vaccination program and increase the percentage of employees receiving the vaccine.

ABOUT THE AUTHOR
Ms. Moore is Clinical Developmental Specialist, The Methodist Hospital, Houston, TX. The author discloses that she has no significant financial interests in any product or class of products discussed directly or indirectly in this activity, including research support.

Dr. Strasser is President, Partners in Business Health Solutions, Inc., Toledo, OH; and Adjunct Assistant Professor, University of Michigan, School of Nursing, Occupational Health Nursing Program, Ann Arbor, MI. doi:10.3928/08910162-20091027-02

BACKGROUND AND SIGNIFICANCE
A review of the literature demonstrated that low receipt of influenza vaccine is a national and worldwide health issue. The Centers for Disease Control and Prevention states that vaccine is effective for 70% to 90% of adults, yet only 10% to 40% of health care workers receive influenza vaccine in the United States (Pearson, Bridges, & Harper, 2006). The World Health Organization (WHO) has identified annual influenza vaccine as a priority for health care workers worldwide (WHO, 2009). Internationally, researchers have identified low vaccination rates in Switzerland (Tapiainen, Bar, Schaad, & Heininger, 2005), Spain (Galicia-Garcia et al., 2006), and the United Kingdom (Qureshi, Hughes, Murphy, & Primrose, 2004). In addition, multiple U.S. studies have reported low vaccination rates for health care workers (Qureshi et al.; Willis & Wortley, 2007). These studies indicate a growing need to further investigate the reasons health care workers decline vaccination and design materials to educate health care workers about the advantages and risks in accepting or declining influenza vaccine.

RESEARCH DESIGN AND METHODS
This nonexperimental, retrospective survey study included all employees of a particular health care institution. The employees were instructed by management to receive the influenza vaccination or decline by completing a declination form. The declination form was developed by the investigator and included reasons for declining vaccine based on a literature search and personal experience. The form was reviewed by a panel of experts for content validity. The panel reached 100% agreement on the included items.
The process of declining could be completed online or on paper. The opportunity to decline or receive the vaccine extended from October 15, 2007, to February 15, 2008. Data entry from the online declinations was autopopulated into the “Flu Tracker” database and information from the paper declinations was hand entered by employee health clinic staff into the same database. The Flu Tracker database is an online application that stores information reflecting the employee’s choice, including date and time of vaccine receipt or reason for vaccine declination. The Flu Tracker is password protected and only available to employee health clinic staff. All paper documents were stored in a locked cabinet. They have since been scanned into employee health records and the hard copies destroyed. Names of participants were not shared or attached to the data. All data were in the aggregate. During data analysis, data were located on one password-protected computer. The computer was locked whenever the investigator was away from her desk. The data were delinked and shared only with the statistical consultant.

**Sample**

The population consisted of 8,537 adult employees who, regardless of job code or level of patient contact, were required to receive the influenza vaccine or actively decline by completing the declination form. The declination and all influenza educational materials were available in English and Spanish. The sample included 2,971 employees who actively declined the vaccination by completing the online or paper declination form. After approval by the hospital institutional review board, the investigator accessed the database. Individuals’ receipt or declination of the influenza vaccine was not shared with managers or supervisors or any staff member other than the employee health clinic staff. Employees who declined the vaccination experienced no adverse consequences. Communication to management listed only employees who were noncompliant with the process; the choice of the employee was not communicated to management.

**Statistical Analysis**

Data from the declination form were reviewed for common themes. To control for bias, two reviewers separately scanned the data for common words and themes. The two reviewers compared their results and reached one conclusion about the themes and the phrases that represent those themes. Data from the current year will be compared with the following year’s data to determine if the rate of vaccine receipt has increased or decreased.

**RESULTS**

The results demonstrated that 52% of all staff members received the influenza vaccine and 35% declined immunization. The remaining 13% did not participate by either declining or receiving the vaccine (Fig. 1). Employees who chose not to comply with the influenza vaccination program were encouraged to participate or actively decline; how-

---

**Figure 1.** Percentage of employees ($N = 8,537$) who received, declined, or did not respond in February 2008.

**Figure 2.** Reasons cited by employees ($n = 2,971$) for declining.
ever, they were not penalized for not participating.

The reasons for declining the vaccine centered on the belief that the vaccine would cause illness, the belief that the vaccine would not work, and “other” or write-in reasons for declining the vaccine (Fig. 2). The write-in option was intended to capture declinations due to religious reasons or personal objections. Instead, employees chose “other” and wrote in comments such as, “I never get one,” “I was too busy,” and “I’m allergic to dairy products.” As a result, the data from this category are less useful as a declination reason than the other options in which an employee had specific alternatives. These reasons, although less easy to categorize, provide rich data.

The direct caregivers displayed exactly the same response to the receipt or declination of influenza vaccine (Fig. 3). The reasons for declination were similar: the belief that the vaccine can cause illness, the belief that the vaccine will not work, and other comments (Fig. 4). These data were not checked with the staff to validate findings because of confidentiality. The results were presented to administrators and educators in the institution and educational materials were prepared based on the findings.

**IMPLICATIONS FOR PRACTICE**

Education and increased accessibility to vaccine were identified as implications for practice. The majority of employees declined the vaccine because they believed the vaccine would make them sick. Yet, research demonstrates that the influenza vaccine is safe and is unlikely to cause a vaccine-related illness (Goldstein, Kincaid, Gamble, & Bearman, 2004; Novartis, 2008). Learning why employees decline the influenza vaccine can impact educational programs aimed at decreasing misunderstandings and barriers to receiving vaccinations. If more employees receive the vaccine, the number of patients exposed to the
Why Health Care Workers Decline Influenza Vaccination

Moore, B. S.


1. Influenza vaccination is recognized as the best method of preventing influenza. However, health care workers frequently resist influenza vaccination.

2. This institution used an active declination versus receipt of vaccination process that included all employees, regardless of position or potential for patient contact. During the research, the institution employed 8,537 individuals.

3. The most common reasons for declination of influenza vaccine were the belief the vaccine would cause illness, the belief the vaccine would not work, fear of an allergic reaction, and confusion or inconvenience surrounding receiving the vaccine. The reasons for declination were similar between direct patient caregivers and non-direct patient caregivers.

4. Several strategies were developed to encourage acceptance of influenza vaccination: multiple-language education targeted at reasons for declination, institutional champions from multiple disciplines, vaccine availability in multiple locations throughout a 24-hour period, and promotion of influenza vaccination as an institutional priority.

To counter the reasons for declination, several strategies were developed to encourage acceptance of influenza vaccination. These strategies included multiple-language education targeted at reasons for declination, institutional champions from multiple disciplines, vaccine availability in multiple locations, and encouragement throughout a 24-hour period, and promotion of influenza vaccination as an institutional priority.

In August 2009, the institution adopted a mandatory influenza vaccination policy. Employees no longer have the option to decline. Exemption from influenza vaccine is granted only secondary to health contraindications (signed by a physician), religious restrictions, or verification of vaccine receipt at an alternate location.

REFERENCES


