

Use of Influenza Vaccination Declination Statements in 17 U.S. Hospitals: Results of an IDSA Emerging Infections Network Survey

Susan Beekmann RN MPH¹, Thomas Talbot MD MPH², Ed Septimus MD³, Michael Parry MD⁴, YiYi Chen MS¹, Philip Polgreen MD¹
and the Infectious Diseases Society of America Emerging Infections Network

¹University of Iowa, Iowa City, IA; ²Vanderbilt University, Nashville, TN; ³The Methodist Hospital System, Houston, TX; ⁴Stamford Hospital, Stamford, CT

Contact e-mail address:
ein@uiowa.edu



Modified Abstract

Introduction: To address low influenza vaccination rates among healthcare workers (HCWs), HICPAC and ACIP recently recommended that HCWs refusing vaccination be required to sign a declination form. Few data exist regarding the effectiveness of this approach. The purpose of this study was to learn about the impact of declination policies at multiple institutions.

Methods: The IDSA EIN selected a 100-physician subset of its membership based on previous responses indicating that their institutions had or were considering the introduction of a declination policy. Members were surveyed once in 2007 by facsimile or email regarding influenza vaccination declination policies and vaccination rates at their institutions. The vaccination rate during the year of policy implementation was compared to that of the previous year, using a paired t-test.

Results: Of the 45 respondents, 31 worked at hospitals with such policies, and 23 provided complete data. Mean vaccination rates were 52% (SD 0.14) the year before and 65% (SD 0.15) the year of declination implementation. The mean increase in vaccination rate was 11.6% (CI 6.3% - 16.9%, P=0.0002).

Twenty-four institutions concurrently used other strategies to increase vaccination rates (e.g., educational campaigns). While 16 institutions "mandated" declination, no penalties were enacted for failure to sign. Supervisors were only notified of vaccination refusals at 2 institutions. Resistance to the policy (primarily from individual HCWs) was reported at 20 institutions.

Conclusions: The use of declination policies (with no penalties) was associated with a statistically significant, but modest, increase in vaccination rates. However, part of the observed increase may be due to other concurrent strategies at these hospitals to increase vaccination rates. Specific factors associated with more successful declination policies, such as administrative support and penalties for failure to sign, should be examined.

Introduction

- Only 40% of U.S. healthcare workers are vaccinated each year against influenza
- 2006 guidelines by HICPAC and ACIP recommend that healthcare workers refusing vaccination be required to sign a declination form
- Few data exist regarding the effectiveness of declination forms
- The purpose of this study was to gather preliminary information about how declination policies at different institutions have been implemented and to determine the effect of such policies on vaccination rates among healthcare workers

Methods

- Survey (right) distributed in April 2007 to 100 infectious diseases consultant members in the U.S. who had indicated previously either that their institutions had or were considering a declination program, or had responded to a listserv posting about this topic
- We used a paired t-test to compare vaccination rates before and after the declination policies were implemented

EIN Query: Influenza Vaccination Declination Statements

Name: _____

1. Has your institution implemented an influenza vaccination declination statement AND do you know your institution's overall healthcare worker influenza vaccination rates?
 No, thank you for completing this survey.
 Yes, please go to question 2.

2. Please select the first full influenza season that your current declination policy was in place.
 2002-03 2003-04 2004-05 2005-06 2006-07

3. Your institution's influenza vaccination rate for all HCWs the year before you implemented the declination policy AND during subsequent years was: [Note: If the year BEFORE you started was 2004-05 (year of vaccine shortage), please also provide the rate for 2003-04]
 2002-03 2003-04 2004-05 2005-06 2006-07

4. Did your institution meet any resistance to the declination policy from [check all that apply]:
 Administrators
 Persons responsible for running the influenza vaccination campaign
 Individual health care workers
 Health care worker organizations (e.g., unions)
 Other, specify: _____
 If yes, what were the most common reasons cited? _____

5. Did your institution concurrently add any interventions other than declination statements in an attempt to increase vaccination rates? [Check all that apply]
 No
 New educational programs
 New vaccination locations
 New use of vaccination carts
 Other, specify: _____

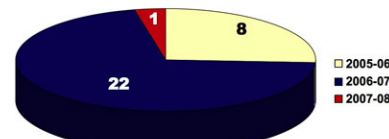
6. Completion of the declination form at my institution is:
 Optional
 Mandatory
 Were there penalties for refusing vaccine and not signing form? _____

7. The top two reasons that employees cite when declining vaccination (excluding medical contraindications) are:
 a. _____
 b. _____

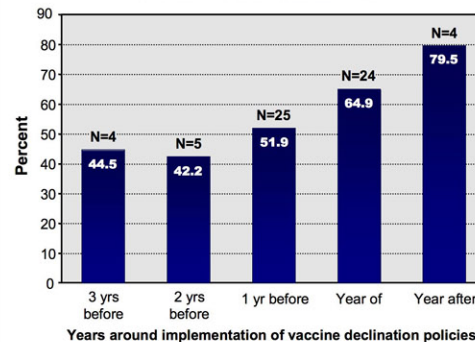
Comments about influenza vaccination declination statements or vaccination rates: _____

- 45/100 (45%) physicians responded; two had duplicate institutional data
- Respondents came from each of the 9 U.S. Census Bureau Divisions
- 31 of 43 respondents indicated that their institution had implemented an influenza vaccination declination policy

First influenza season that declination statements were implemented



Mean vaccination rates

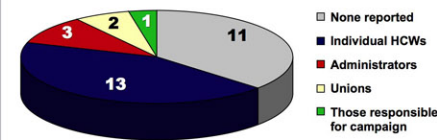


- 23 respondents were able to supply rates for both the year before and the year following implementation of a declination policy

The mean increase in the vaccination rates after implementation was 11.6% (paired t-test, P=0.0002; Confidence Interval 6.3-16.9) with a range from a 1% decrease to a 50% increase

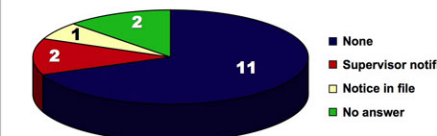
RESULTS

Resistance to the declination policy was encountered from:



Completion of the declination form was:
 Optional – 15 institutions
 Mandatory – 16 institutions

Penalties if mandatory

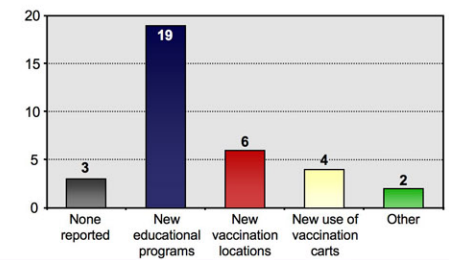


Representative comments by responders about influenza vaccination programs

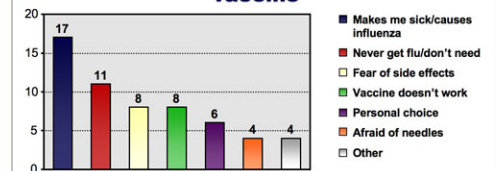
[Quotations taken from text typed into a Comments field]

- Our institution does not have a declination policy. My colleagues in occ med... say that the manpower required to administer a declination policy would be untenable.
- I don't think the declination statements made much difference, but having nurses on every unit encourage other nurses to take the flu shot made a big difference. The actual number of vaccines given did not change much, but many more vaccines were given to HCWs with direct patient contact than in prior years.
- "Mandatory" declination creates a large volume of work, and probably does not yield a significant increase in vaccination rates.
- I think it's good to make people sign when they decline – it may make them think about what they are doing. I would have no problem if flu shots were mandatory just like rubella.
- Given that we did not enforce compliance or have consequences, the program did not succeed in increasing vaccination rates significantly!
- Next year we will use a cardboard cut-out so those signing the roster cannot see the other responses (names). This was the advice of our HIPAA officer.

Other concurrent interventions



Top reasons cited when HCWs decline vaccine



Summary

- The use of declination statements was associated with an increase in vaccination rates among HCWs
- The true impact of these statements is unclear due to the concurrent implementation of other strategies to increase HCW vaccination rates as well as the lack of consequences for those who refused vaccination but failed to sign a declination statement
- Significant resistance from hospital employees was encountered in a number of institutions, and the costs of implementing such a system may be significant
- Declination policies without penalties will not solve the problem of low vaccination rates among HCWs, as the observed effects were modest
- Declination policies appear to be another component to increase the effectiveness of influenza vaccine campaigns