

# Interventions to Promote Seasonal Influenza Vaccinations among Healthcare Workers Interventions with On-site, Free, Actively Promoted Vaccinations

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## Task Force Finding and Rationale Statement

### Intervention Definition

Interventions with on-site, free, and actively promoted influenza vaccinations provide access to free vaccinations to workers at the healthcare facility in which recipients normally work. They announce vaccination availability through formal worksite announcements, such as in newsletters, e-mails, or paycheck inserts. These interventions may include additional components, such as health education and mobile carts.

### Task Force Finding (June 2008)

The Community Preventive Services Task Force recommends interventions with on-site, free, and actively promoted influenza vaccinations, when implemented alone or as part of a multicomponent intervention, based on strong evidence of their effectiveness in increasing influenza vaccination coverage among healthcare workers when implemented alone or as part of a multicomponent intervention.

The Task Force recommends interventions with on-site, free, and actively promoted influenza vaccinations based on sufficient evidence of their effectiveness in decreasing cases of influenza among healthcare workers and patients when implemented alone or as part of a multicomponent intervention.

### Rationale

Studies evaluating the effectiveness of interventions with free, on-site, and actively promoted influenza vaccinations to increase vaccination coverage among workers in healthcare worksites provided strong evidence to support a determination on effectiveness. The evidence included 45 studies (5 with greatest suitability of study design, 6 with moderate suitability, and 34 with least) with moderate to large effect estimates in favor of the intervention. All but one study evaluated vaccination coverage and the median difference was an absolute increase of 17 percentage points (range: 3-46) for the greatest and 22 for the moderate and least suitable design studies (IQI: 11-5). Six studies evaluated intervention effectiveness on seasonal influenza-related morbidity. Four of these reported on the effect of the intervention on nosocomial influenza rates. In three studies that presented the change in the number of cases in the facility per year, estimated effects all showed reductions of about four influenza cases and relative changes ranged from -40% to -100%. Two studies evaluated change in mortality with one study observing a 100% reduction in nosocomial infections confirmed at death, and the other study reporting a lower rate of all-cause mortality after the first year.

All of the included studies evaluated free, on-site, actively promoted influenza vaccination programs when combined with additional interventions including provision of information, efforts to enhance access, activities to change attitudes and norms, and policy changes. Two sets of analyses were conducted to determine the applicability of review finds including comparisons by type of facility and job duties of healthcare providers (HCP). Information regarding the country the study was conducted in is also reported. There was limited information on HCP population characteristics such as race, gender, education, and native language so comparisons could not be made for these variables. In general, the study combinations were unique and demonstrated increases in influenza vaccination coverage among workers, though

stratification analysis according to job duties, showed a median absolute difference in vaccination coverage that was highest among physicians (median difference: 19 percentage points; (interquartile interval [IQI]: 4, 21). Post-intervention vaccination coverage rates for nurses was a median 11 percentage points (IQI: –1, 25). The included studies evaluated interventions conducted in medium and large hospitals, and in long-term care facilities. Most of the studies were conducted in the United States, Europe, and Canada, however the body of evidence included studies from Singapore, Brazil, South Korea, and Australia.

## Economic Review

An economic evaluation to examine the costs and benefits of these on-site interventions was conducted and three evaluations were identified. One study focused on averted costs due to the intervention, another conducted a cost-benefit analysis and a third study conducted a cost-effectiveness analysis of one of the interventions that it selected for its systematic review—a cluster randomized controlled trial (RCT) implemented in the U.K. All of the interventions were undertaken in large hospitals.

There is considerable variability in the type and value of the economic estimators presented in the three reviewed studies. Also, the costs of promotion and campaign and the benefits of preventing nosocomial infections were not examined uniformly across the three studies, and none of the studies included the averted medical care costs to both patients and staff due to reduction in nosocomial influenza cases. Although the findings from these studies suggest that vaccinating healthcare workers through promotion can be cost-effective and probably cost-saving, a firm conclusion about economic effectiveness of such programs is difficult given the limited number of available studies.

*The data presented here are preliminary and are subject to change as the systematic review goes through the scientific peer review process.*

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## Disclaimer

The findings and conclusions on this page are those of the Community Preventive Services Task Force and do not necessarily represent those of CDC. Task Force evidence-based recommendations are not mandates for compliance or spending. Instead, they provide information and options for decision makers and stakeholders to consider when determining which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.

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