Health Care Professionals & Annual Flu Vaccination
Facilitators, Barriers, and Lessons Learned from CDC Research

Background
Influenza (flu) is a contagious respiratory illness caused by influenza viruses. CDC estimates that since 2010, flu-related hospitalizations in the United States have ranged from 140,000 to 710,000. The annual flu vaccine is the most effective way to prevent the flu. The Centers for Disease Control and Prevention (CDC) recommends that everyone 6 months of age and older get a flu vaccine every season, including health care professionals.

Flu among health care professionals can result in lost work days and has the potential to spread flu to other HCPs and their patients. Flu vaccination of HCPs has been shown to reduce the risk of flu and absenteeism in vaccinated HCPs and reduce the risk of respiratory illness and deaths in their patients. Most recent data found:

- About 79% percent of health care professionals were vaccinated during the 2015-16 flu season.
- Vaccination coverage was higher among HCP working in hospitals (91.2%) and lower among HCP working in ambulatory (79.8%) and long-term care (LTC) settings (69.2%).
- In terms of occupation, coverage was highest among physicians (95.6%) and lowest among assistants and aides (64.1%) during the 2015-16 flu season.

Increased efforts are needed to improve coverage among these HCP groups with lower coverage, especially those working in LTC settings where residents are often at higher risk of severe complications from flu. Research suggests that support from health care workers and personalized communications are critical factors for the improvement of seasonal flu vaccine coverage.

CDC has done a variety of communication research-related projects with HCPs, including nurses and allied health professionals (e.g. dental hygienists, dietitians, physical therapists) to assist in flu vaccination promotion, communication and messaging efforts.

Methodology
CDC reviewed flu vaccine-related research from 2000 through 2013 to gain an in-depth understanding around the reasons associated with decisions to get a flu vaccination, as well as barriers to flu vaccination. The qualitative meta-analysis reviewed 29 qualitative studies, including focus groups, in-depth interviews, survey research, and message testing. The participants of the studies represented a range of populations, including health care professionals such as nurses and allied health professionals.
Results
This analysis found a number of facilitators and barriers to getting a flu vaccination based on health care professionals' attitudes and beliefs toward influenza vaccine. Factors associated with being more accepting to flu vaccine include having:

- A basic understanding of flu, such as symptoms, how flu spreads, timing of flu season, and how long flu illness can last.
- An understanding and belief of the information given about vaccine safety, side effects, and effectiveness.
- Accepted that the vaccine is safe, will protect them and their families, and won't increase their chances of getting the flu.

Factors associated with being less accepting to flu vaccine include:

- Believing they're not likely to get the flu or think it's a “manageable” illness, even when suggesting it to their patients.
- Thinking they are unlikely to give the flu to their patients.
- Believing they are knowledgeable about high-risk populations, but being less likely to consider themselves at high risk of getting ill from the flu.
- Thinking the flu shot will cause the flu or flu-like symptoms.

Facilitators & Barriers to Flu Vaccination
Attitudes and beliefs of nurses and allied health professionals influencing the decision to get a seasonal flu vaccine are displayed in the table below.

<table>
<thead>
<tr>
<th>AUDIENCE</th>
<th>Facilitators to Flu Vaccination</th>
<th>Barriers to Flu Vaccination</th>
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| Nurses and Allied Health Professionals | - Motivated by the personal protection the flu vaccine provides  
  - Believe they need to be protected from their patients | - Consider the flu shot as only important to certain groups, such as “older nurses”  
  - Don’t see the need for a flu vaccine for themselves because they don’t believe they are at risk  
  - Don’t believe the flu vaccine is effective and believe the common misconception that the flu vaccine gives you the flu |

Research to Practice
After identifying the themes above, we developed communication materials and messages to increase facilitators to flu vaccination and decrease barriers. Below are examples of communication messages and strategies that have been shown to influence flu vaccination rates based on the findings of this research analysis.

<table>
<thead>
<tr>
<th>Conduct HCP Training</th>
<th>Use Effective Messages</th>
<th>Remind HCPs of the Vaccine Recommendation</th>
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| - Particularly for nurses and allied health professionals  
  - Stress information and data that show the safety of the vaccination  
  - Address misconceptions about the vaccine, such as the flu vaccine causes the flu as well as other misconceptions  
  See an HCP training example | - Focus vaccination messages on the safety of the flu vaccine and the protection it provides HCPs and their patients, friends and family members  
  - Messages urging guilt or mentioning missing work due to illness are not received well | - Actively promote the flu vaccine for HCPs with visible and frequent reminders, public service announcements, and media news stories |

For more information, visit: [www.cdc.gov/flu](http://www.cdc.gov/flu) or call 1-800-CDC-INFO