Survey Reveals Gaps in Public's Flu Awareness

BY JOHN R. BELL
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WASHINGTON — Much of the public harbors misperceptions about influenza and vaccination against it, according to data from a nationwide survey presented at a press briefing sponsored by the National Foundation for Infectious Diseases.

In the Public Perception of Influenza, Vaccination and Treatment Options Survey, randomly administered via telephone to more than 1,000 adults in all 50 states, only 48% of the respondents said they planned to be immunized this year.

Reasons given for not seeking immunization included the belief that influenza is not a serious enough disease to warrant vaccination (43%), that they were personally not at risk (38%), that they previously contracted the flu even after being vaccinated (23%), and that vaccination in a prior influenza season would offer protection against current infection (15%).

Overall, 46% of respondents believed influenza vaccine can cause influenza. Also, 30% said the vaccine is not worthwhile because it protects against only three strains of influenza. Many said vaccination in December or later was too late to be effective.

These findings underscore the need for physicians to recommend vaccination to their patients, said Dr. Susan J. Rehm, medical director of the National Foundation for Infectious Diseases. A direct recommendation from a health care provider "was one of the major drivers for individuals getting influenza vaccine," she said.

"The medical community must also reinforce the public health benefits of vaccination in the later season," Dr. Rehm said, "by educating patients throughout the winter months …about the benefits of the vaccine, even if disease has already begun to be seen in their area."

Also of concern: Only 49% of respondents knew annual influenza vaccination is recommended for pregnant women. ■

Air Travel Plays Role in Influenza Transmission

Air travel has finally been shown to influence the spread of influenza, said Dr. John S. Brownstein of the Children's Hospital Informatics Program at the Harvard-MIT division of health sciences and technology, Boston, and his associates.

They analyzed interregional influenza spread across the United States, then correlated the pattern with data on airline travel. Previous studies that used computer simulations have suggested that air travel may play a role in the spread of annual influenza, but "we provide what is to our knowledge the first empirical evidence to confirm the effect airline volume [has] on long-range spread," they said.

The investigators analyzed weekly influenza mortality data from the Centers for Disease Control and Prevention for nine influenza seasons between 1996-1997 and 2004-2005. They found strong correlations between monthly fluctuations in airline volume and two other measures: the rate of disease spread and the timing of seasonal influenza mortality.

The number of domestic passengers from November to January of a given season showed a strong inverse correlation with the time to the spread of influenza across the United States. "Although influenza activity is highest between January and March, initial regional seeding of infection may occur earlier," Dr. Brownstein and his associates said (PLoS Med. 2006 October [Epubdoi:10.1371/journal.pmed.0030401]).

"Our results suggest that for a nonpandemic year, travel during the Thanksgiving holiday may be central to the yearly national spread of influenza in the [United States]," they noted. The volume of international travel in all three months, but particularly in September, predicted the national seasonal peak in influenza mortality.

These findings suggest that airline passenger volume accounts for about 60% of the between-season variation in influenza spread and peak.

"Our results suggest that limiting domestic airline volume would have a measurable impact on the rate of spread of an influenza pandemic." Restricting international flights into the United States also would reduce the probability of a pandemic strain reaching the country.

—Mary Ann Moon