

# Flu vaccination disparities exacerbated by supply problems

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The gap in flu vaccination rates between elderly whites, African-Americans and Hispanics is amplified when vaccine supply is limited or delayed. That is the conclusion of a study out today in the *American Journal of Preventive Medicine*.

The study found that [disparities](#) in seasonal influenza vaccination rates between the groups grew by as much as 7 percentage points in years when there were problems with vaccine supply. By contrast, the gap narrowed by as much as 11 percentage points during years when the supply was more timely and abundant.

"There is a strong association between influenza vaccine supply and the gap in vaccination rates between racial and ethnic groups," said Byung-Kwang Yoo, M.D., Ph.D., an assistant professor in the Department of Community and Preventive Medicine at University of Rochester Medical Center and the lead author of the study. "These disparities are aggravated when vaccine supply is delayed or decreased."

Disparities in immunization rates represent a critical and persistent public health challenge. These discrepancies have significant public health consequences; influenza is one of the leading causes of death among people 65 and older. Nationwide, complications associated with influenza result in 36,000 deaths each year and over 120,000 hospitalizations.

Using data from the Medicare Current Beneficiary Survey, which

consists of claims data and survey results of individual Medicare recipients, the study looked at seasonal [influenza](#) vaccination rates from 2000 to 2005. The data was broken into four "periods" consisting of two concurrent flu seasons during which the same group of individuals was followed for each period. For example, the same group of respondents was followed for the 2000-2001 and 2001-2002 vaccine seasons.

This method allowed researchers to compare individual activity during years in which vaccine supply fluctuated. The 2000-2001 and 2004-2005 seasons were characterized by severe vaccine shortages, 2001-2002 and 2003-2004 saw moderate shortages, and there were no supply problems during the 2002-2003 season.

Overall vaccinate rates among non-Hispanic whites ranged from 71 to 78 percent during the study period, significantly higher than African-American (43-63 percent). Total vaccination rates were also lower among Hispanics which the study broke into English and Spanish speaking groups depending upon the language used to respond to the survey. Vaccination rates for English speaking Hispanics were 58-75 percent and the Spanish speaking group was 31-53 percent, the lowest among the groups studied.

In years when there were problems with vaccine supply, the gap in vaccination rates between whites and the other groups jumped by 2 to 7 percentage points, depending upon the severity of the shortage. When flu seasons with supply problems were followed by seasons with adequate vaccine supply, the gap between the groups would narrow by 2 to 11 percentage points.

The authors speculate that the sharper decline in [vaccination rates](#) among minorities is attributed to a number of factors including more pronounced vaccine shortages among providers in underserved communities and, in the case of Spanish-speaking populations, language

barriers.

The authors recommend a more concerted effort to ensure clinics that serve vulnerable populations are prioritized for vaccine supply and that the government to help mitigate the financial risk for these providers by covering the cost of purchasing the vaccines. They also recommend more broad-based and multilingual communication and outreach efforts.

Provided by University of Rochester Medical Center

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