

# Media coverage responsible for growth in vaccination rates

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Mass media coverage of flu-related topics such as vaccine shortages and delays appears to boost overall vaccination rates and prompt people to get their shots earlier in the flu season. A study published online today in the journal *Health Service Research* shows that, on average, national news reports involving the flu are estimated to increase annual vaccination rates by as many as 8 percentage points.

"There is a strong correlation between media coverage and the timing and annual receipt of [influenza vaccine](#) among the elderly," said Byung-Kwang Yoo, M.D., Ph.D., assistant professor in the University of Rochester Medical Center Department of Community and [Preventive Medicine](#) and lead author of the study. "We know that mass media can substantially influence health knowledge and the use of health services. In this instance, it is also clear that the media play a significant role in public health."

The study focused on vaccination trends over three [flu](#) "seasons" from 1999 to 2001, a period that included 2 years with a vaccine supply shortage and/or delay in delivery (2000 and 2001.)

Researchers examined trends among approximately 22 million individuals over the age of 65; a population that accounts for approximately 90% of influenza-related deaths and 63% of hospitalizations. Annual [vaccination rates](#) for this population are approximately 70% based on self-reported surveys. Researchers excluded individuals in assisted living facilities under the assumption

that they would receive vaccinations in an institutional setting as opposed to during a scheduled visit with a health care provider or at a flu clinic. Data from Medicare provided the exact date individuals in the study population received a flu shot.

The researchers collected news transcripts which mentioned the influenza vaccine from the four major national television networks (ABC, CBS, NBC and Fox News), the Associated Press, and USA Today. They then compared Nielsen television viewership ratings and newspaper circulation figures (USA Today) by state and created a statistically weighted model that enabled them to predict the state-by-state penetration of these media outlets and the influence of the news coverage on vaccine rates and timing.

The dates of the flu stories were compared to vaccination dates in the study population. The researchers assumed that there would be a lag of a week or so between the news stories and the actual date that people received their flu shots because of the time required to make an appointment with their health care provider.

Researchers noticed spikes in vaccination activity following news reports and the models indicated that the news coverage may have been responsible for increasing overall vaccination rates in the study population by up to 7.9 percentage points. The reports also appear to have moved up the date on which people received their vaccinations by an average of 4.1 days among the more than 10 million in the study population who received a flu shot. This effect was even more pronounced when terms like "shortage" and/or "delay" were included in the story or when these and other key terms such as "influenza" and/or "vaccine" appeared in a headline - as opposed to just in the body of the story.

"Our analysis provides a framework with which we can predict the

impact of both existing and expanded news coverage," said Yoo. "This points to a model in which closer collaboration between the news media and the public health community could have an ongoing and significant impact on not only seasonal vaccination rates but also during pandemic outbreaks."

Provided by University of Rochester Medical Center

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