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OCCASIONAL PAPER

Influenza Vaccine Use by Adults in the U.S.

A Snapshot from the End of the 2008–2009 Vaccination Season

Katherine M. Harris, Juergen Maurer, and Nicole Lurie

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In March 2009, the RAND Corporation conducted a survey of a nationally representative sample of adults age 18 and over (n=5,203) to collect data on the receipt of the influenza vaccine in the United States. The results of this survey will inform public health officials and other stakeholders about the vaccination status of key subgroups shortly following the end of the 2008–2009 vaccination season.

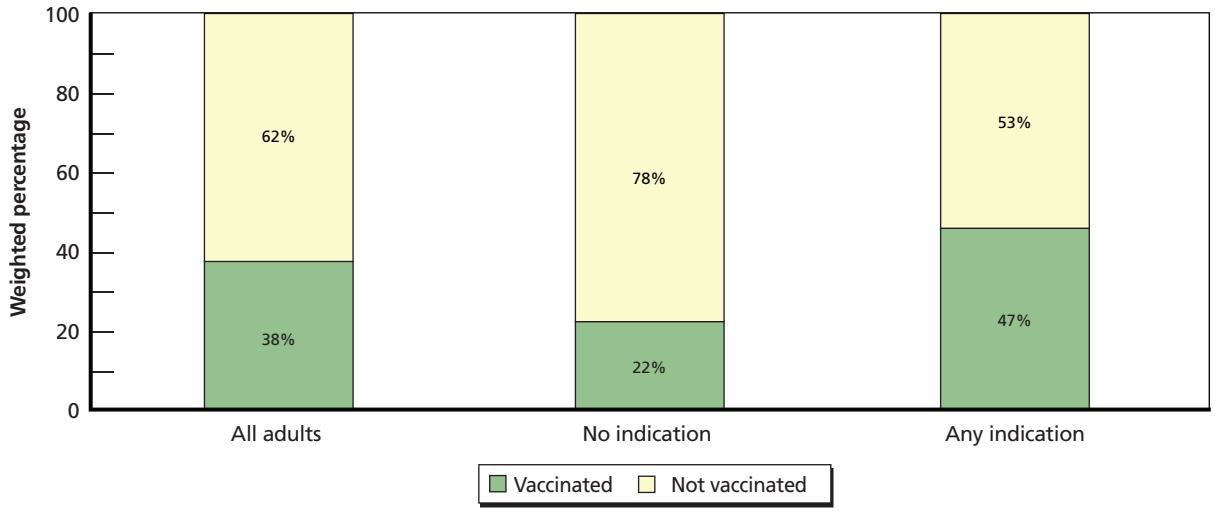
By March 2009:

- **38 percent of all U.S. adults had been vaccinated against influenza**
- **47 percent of adults with a health or occupational indication had been vaccinated**
- **Not needing influenza vaccine was the most commonly cited reason for not being vaccinated.**

The Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC) specifically recommends annual influenza vaccination for adults with one or more of the following indications: age 50 or older; having a high-risk health condition; being a health-care worker; or having contact with or caring for young children, the elderly, or high-risk individuals.[1] Survey results suggest individuals with indications comprise roughly seven in ten U.S. adults. The ACIP also recommends annual vaccination against influenza for any adult who wants to reduce the risk of becoming ill with influenza or of transmitting it to others.

Receipt of Influenza Vaccine by Adults Age 18 and Older in the United States, 2008–2009

By the end of the 2009–2009 vaccination season, less than four in ten adults had been vaccinated against influenza. Adults with a specific indication were more than twice as likely to have been vaccinated against influenza during the 2008–2009 season compared to those without a specific indication.



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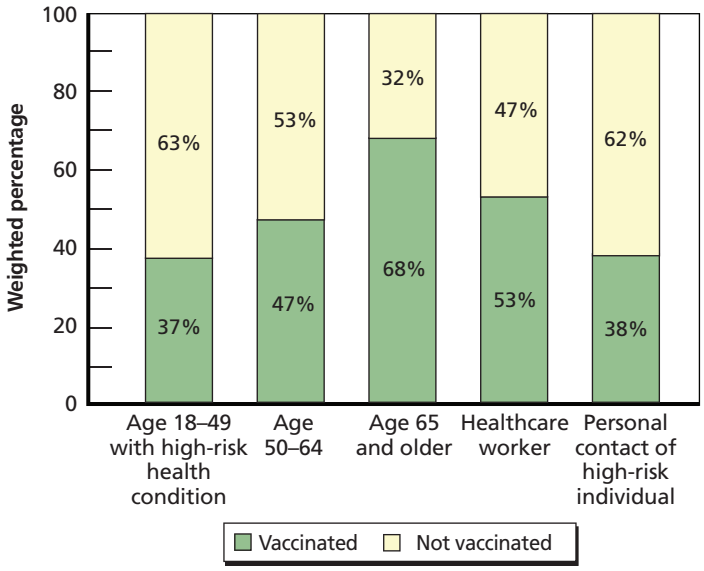
Receipt of Influenza Vaccine by Indication

Vaccine uptake among adults with a specific indication varied widely. Almost seven in ten adults age 65 and older received the vaccine, and roughly half of all adults between the ages of 50 and 64 and all health care workers received the influenza vaccine. By contrast, slightly more than one-third of high-risk individuals age 18–49 and of those in close personal contact with high-risk individuals received the vaccine.



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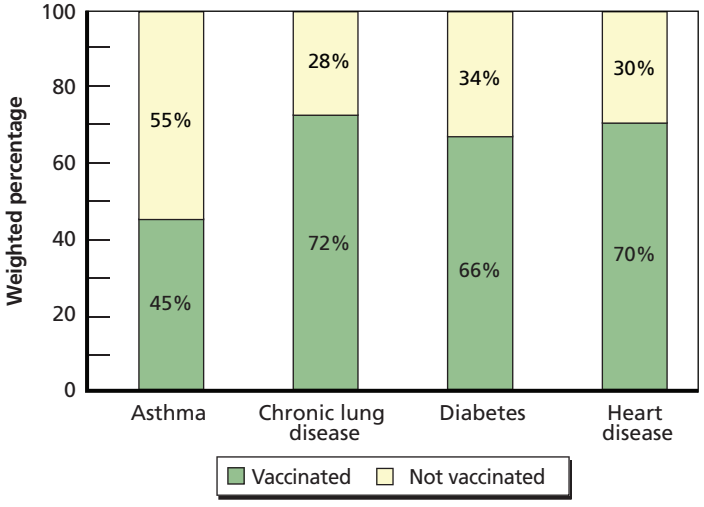
Receipt of Influenza Vaccine by Selected High-Risk Health Condition

More than two-thirds of adults with chronic lung disease, diabetes, and heart disease were vaccinated during the 2008–2009 influenza vaccination season. By contrast, less than half of those with asthma were vaccinated.



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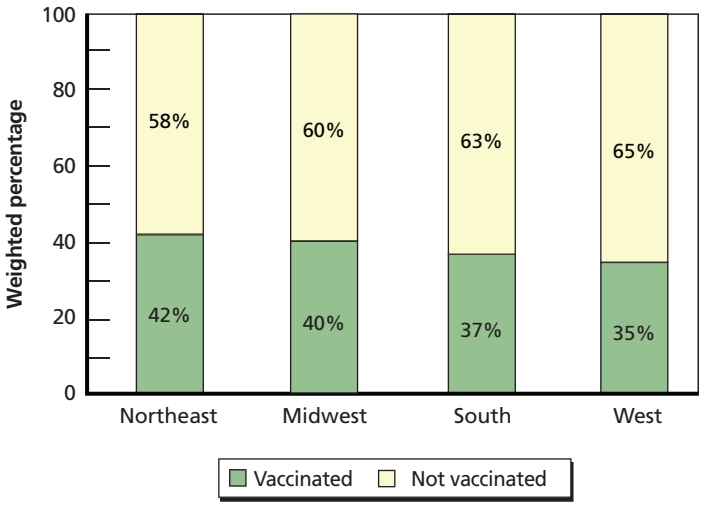
Receipt of Influenza Vaccine by Region

Geographic differences in the uptake of influenza vaccination were not substantial. No more than two in five adults received an influenza vaccine during the 2008–2009 season in any Census-defined region of the country.



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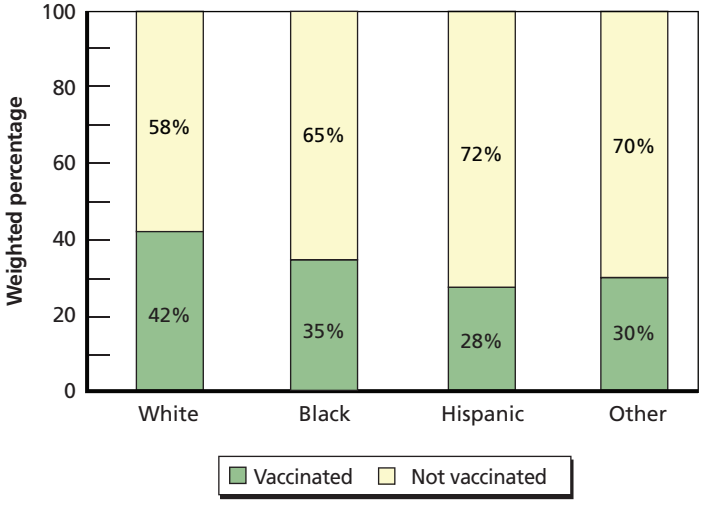
Receipt of Influenza Vaccine by Race/Ethnicity

Slightly more than one in four white adults, one-third of black adults, and roughly one in four Hispanic adults received the influenza vaccine.



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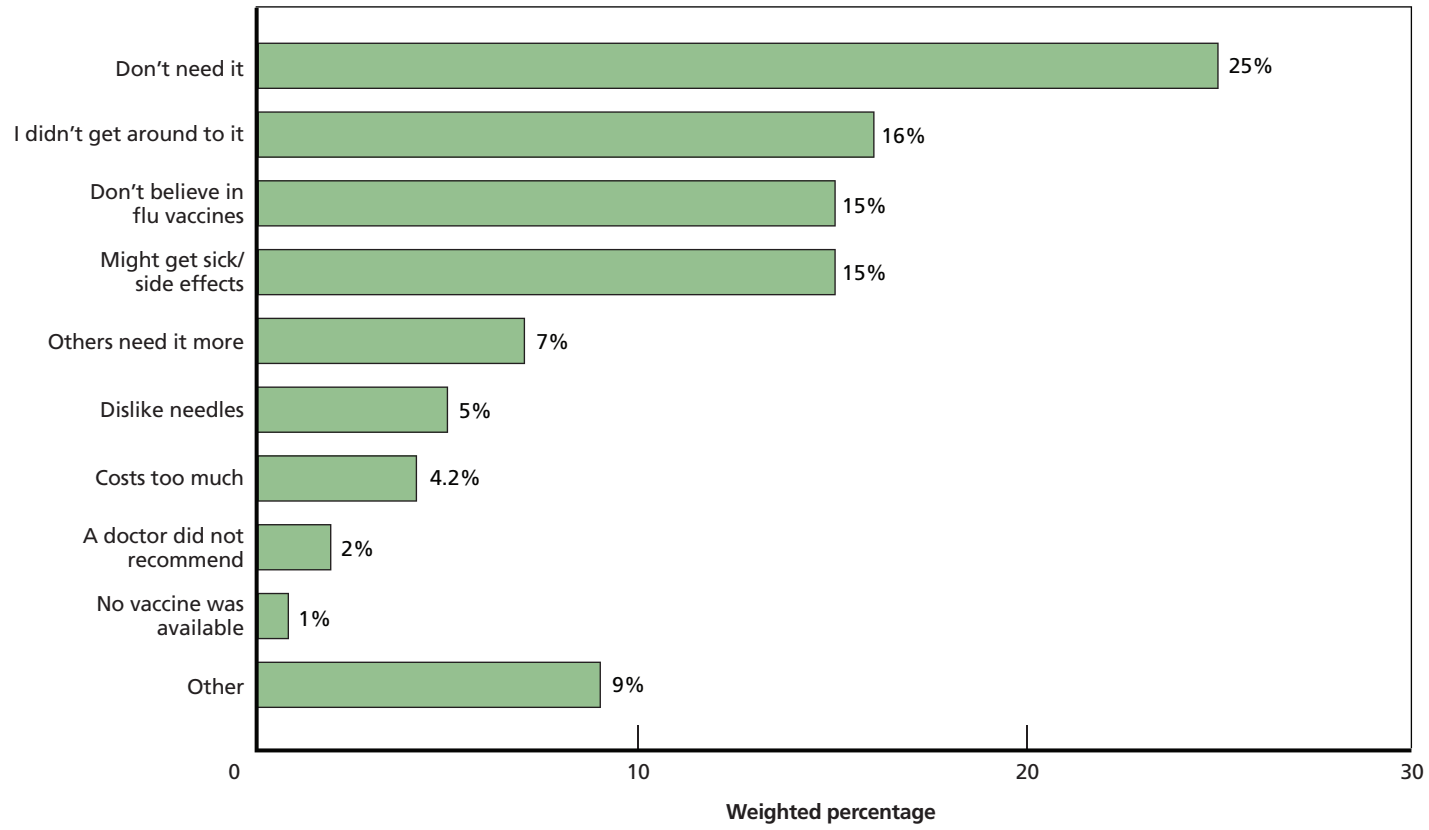
Why Adults Were Not Vaccinated Against Influenza

The most commonly cited reason (indicated by one-quarter of unvaccinated adults) for not being vaccinated against influenza during the 2008–2009 vaccination season was not needing the vaccine. Roughly one-half of unvaccinated adults cited reasons related to either beliefs about need and about the risk of illness or of side effects. By contrast, cost or a lack of priority placed on vaccination (i.e., "I didn't get around to it") were cited by only roughly one in five unvaccinated adults. Despite the absence of a vaccine shortage during the 2008–2009 vaccination season, roughly seven percent of adults cited others needing the vaccine more as the main reason for their not being vaccinated. Dislike of needles, the lack of a doctor's recommendation, the lack of available vaccine, and other (unspecified) reasons were cited by roughly one in five adults as the main reason for their not being vaccinated.



NOTE: Percentages shown do not equal 100% due to rounding.

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This occasional paper presents data from a nationally representative survey of adults age 18 and older (n=5,203) conducted for RAND by Knowledge Networks, Inc., a nationally representative online research panel consisting of roughly 40,000 households. Reported percentages have been weighted to reflect the demographic composition of U.S. adults using data from the Current Population Survey. Panelists are initially recruited with known probabilities using random-digit dialing. Household members agree to respond to surveys in exchange for small financial incentives or free Internet access. Studies using the Knowledge Networks panel have been published in peer-reviewed literature.

For additional information about the survey and sampling methodology, see "Knowledge Networks Methodology," available at http://www.knowledgenetworks.com/ganp/docs/Knowledge%20Networks%20Methodology.pdf

The survey was administered to a general sample of 5,661 adult panelists and an oversample of 1,897 health care workers between March 7 and April 7, 2009. Health care workers in the panel were identified based on self-reported work in a health care profession, including the professions of medical doctor, nurse, nursing aide, pharmacist, or paramedic. Sixty-five percent of panelists in the general adult sample and seventy-nine percent of health care workers responded to the survey. The survey questionnaire is available at http://www.knowledgenetworks.com/vaccine/

For detailed tables, including 95-percent confidence intervals, completion rates, and sample sizes, see Katherine M. Harris, Juergen Maurer, and Nicole Lurie, *Midseason Influenza Vaccine Use by Adults in the U.S.: Detailed Survey Data Tables*, Santa Monica, Calif.: RAND Corporation, OP-270/1-GSK, 2009, available at http://www.rand.org/pubs/occasional_papers/OP270.1/

[1] Fiore, A.E., et al., Prevention and control of influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2008. MMWR Recomm Rep, 2008. 57(RR-7): pp. 1–60. High-risk health conditions include diabetes, heart disease, chronic lung disease, asthma, immune system problems, kidney disease, sickle cell disease, and hemophilia.

This survey was conducted with the funding and support of GlaxoSmithKline (GSK). The findings have been subject to RAND's quality assurance and peer review process, and RAND alone is responsible for the content. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

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