Influenza Vaccine Use by U.S. Adults During the 2008-2009 Vaccination Season

Katherine Harris
Jurgen Maurer
Nicole Lurie

National Influenza Vaccination Summit
June 30, 2009

The survey was designed and analyzed by the RAND Corporation, fielded by Knowledge Networks, and supported by GlaxoSmithKline

Objectives of the Rapid Survey Project

• Provide timely data on influenza vaccine uptake

• Identify key subgroups in need of targeted interventions
**Project Overview**

- Three nationally representative surveys of US adults age 18 and older
  - End-of-season 2007-08 (n=3,043)
  - Midseason 2008-09 (n=3,972)
  - End-of-season 2008-09 (n=5,203)

- Results available in just over one month, e.g.,
  - Midseason survey fielded November 7-19, 2008
  - Short, peer-reviewed report on RAND’s website December 10, 2008

**Data is obtained quickly through the use of a respected online research panel**

- Surveys administered to members of the “Knowledge Panel”
  - 40,000 households recruited with known probability
  - Sample includes non computer users

- Sampling weights based on US Census data make uptake estimates nationally representative

- Studies using Knowledge Networks are published in high-quality health journals, *E.g.,* *Health Services Research*, *JAMA*, and *Health Affairs*

- Coverage rate estimates compare favorably to NHIS, See Harris et al., *Vaccine* 2009
2008-09 End-of-Season Survey

- Data collected between March 4 and April 7, 2009
- Over-sampled of health care workers
- Includes subsample interviewed at midseason (n=1,500)
- Response rates
  - 65% of all sampled panelists (n = 5,203)
  - 79% of healthcare workers (n = 1,499)
- Unweighted sample was diverse

<table>
<thead>
<tr>
<th>Age</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other/Mixed Race</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-49</td>
<td>1,018</td>
<td>341</td>
<td>230</td>
<td>165</td>
<td>1,754</td>
</tr>
<tr>
<td>50-64</td>
<td>1,058</td>
<td>601</td>
<td>301</td>
<td>264</td>
<td>2,224</td>
</tr>
<tr>
<td>65+</td>
<td>615</td>
<td>250</td>
<td>134</td>
<td>226</td>
<td>1,225</td>
</tr>
<tr>
<td>Total</td>
<td>2,691</td>
<td>1,192</td>
<td>665</td>
<td>655</td>
<td>5,203</td>
</tr>
</tbody>
</table>

Just over one-third of adults 18 and older were vaccinated during the 2008-09 season

Note: Recommendations cover the following specific indications: high-risk health conditions, age 50 and over, HCW, and personal contact of high-risk individuals. *Percentages weighted to the US adult population.
Uptake among elderly exceeds that for other recommended groups

Percent Vaccinated Against Influenza*

- Age 18-49 with high risk health condition: 37%
- Age 50-64: 47%
- Age 65 and older: 68%
- Healthcare worker: 53%
- Personal contact of high risk individual: 38%

*Percentages weighted to the US adult population.

Uptake was lower among those with asthma

Percent Vaccinated Against Influenza*

- Asthma: 45%
- Chronic Lung Disease: 72%
- Diabetes: 66%
- Heart Disease: 70%
- Other: 63%

*Percentages weighted to the US adult population.
Uptake was higher among recommended adults visiting a provider this fall

Note: Uptake difference was significant at p<.05 level. *Percentages weighted to the US adult population.

Uptake was higher among recommended adults who received a reminder

Note: Uptake difference significant at p<.05 level. *Percentages weighted to the US adult population.
A substantial proportion of the unvaccinated had no intention of being vaccinated

- Vaccinated by midseason: 37%
- Vaccinated by end-of-season with midseason intent: 10%
- Unvaccinated by end-of-season with no midseason intent: 44%
- Unvaccinated by end-of-season with midseason intent: 7%
- Vaccinated by end-of-season with no midseason intent: 2%

*Percentages weighted to the US adult population.

Reasons for Being Unvaccinated Differed by Vaccination Intention at Midseason

- Didn't get around to it
  - Intended: 9%
  - Did not intend: 48%
- Don't believe in flu vaccine
  - Intended: 4%
  - Did not intend: 16%
- Don't need flu vaccine
  - Intended: 6%
  - Did not intend: 29%

*Percentages weighted to the US adult population.
Provider recommendations may sway many without intentions to be vaccinated

![Bar chart](image1)

*Percentages weighted to the US adult population** Adults with specific ACIP recommendation

Healthcare workers viewed flu vaccine more favorably than do other adults

![Bar chart](image2)

Note: Attitudes and beliefs of HCWs significantly different from other adults (p<0.05) on all four measures.*Percentages weighted to the US adult population.
Healthcare workers and other adults cited different reasons for being unvaccinated

**Top Four Main Reasons for Not Being Vaccinated Cited by Adults**

- Don't need it: 25%
- I didn't get around to it: 17%
- Don't believe in flu vaccines: 17%
- Might get sick/side-effects: 14%

Note: HCWs significantly different from other adults at p<0.05 level.
*Percentages weighted to the US adult population.

Key Findings and Implications

- Uptake varied among adults with specific ACIP recommendations
- Contrary to conventional wisdom, people appear to accept vaccine late in the season
- Data highlights importance of recommendations and reminders in achieving current uptake
- Near-term efforts might target the 7% who intended to be vaccinated, but were not
- Healthcare workers were more positive about vaccine, but appear somewhat misinformed
For more information visit

http://www.rand.org/health/projects/flu_survey/

http://www.rand.org/pubs/occasional_papers/OP270/