Attitudes, Beliefs, and Behaviors of Pregnant Women During the H1N1 Flu Season

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I. Experiences and Behaviors Related to H1N1 Vaccination [Slide 3]

II. Information Sources and Messaging about the H1N1 Vaccine [Slide 11]

III. Factors Related to H1N1 Vaccination Decision: Experiences and Attitudes [Slide 22]

IV. Non-Pharmaceutical Flu Prevention Behaviors [Slide 28]

V. Experiences with H1N1 and Treatment [Slide 33]

VI. Beliefs and Behaviors Related to Antiviral Medication [Slide 40]
I. Experiences and Behaviors Related to H1N1 Vaccination
• About four in ten (42%) pregnant women have received the H1N1 flu vaccine to date. Among currently pregnant women, 89% received the H1N1 flu vaccine during their pregnancy, while 11% got it before they were pregnant.

• Half (50%) of pregnant women who got the H1N1 flu vaccine got it at their obstetrician or midwife’s office. Another one in five (20%) received it at a health clinic, 15% received it at their primary care doctor’s office, and only 3% of these pregnant women received it at a pharmacy. Another 13% reported getting the H1N1 flu vaccine somewhere else not mentioned.

• Half of pregnant women either did not intend to get the H1N1 flu vaccine (37%) or were not sure about getting the H1N1 flu vaccine by the end of March 2010 (13%). These women most often cited safety risks to either their baby (62%) or themselves (59%) as a “major reason” for their position.
H1N1 Vaccination Among Pregnant Women Since October 2009

% Among Pregnant Women

Got H1N1 vaccine for themselves 42%

Intend to get H1N1 vaccine for themselves by the end of March 2010 8%

Not sure if they will get the H1N1 vaccine for themselves by the end of March 2010 13%

Do NOT intend to get H1N1 vaccine for themselves by the end of March 2010 37%

H1N1 Vaccination Among Pregnant Women: By Demographics

% Who Got the H1N1 Vaccine for Themselves

By Age
- Under 35: 38%
- 35 and older: 58%*

By Ethnicity
- White, Non-Hispanic: 50%**
- Other: 28%

By Education
- Some college or less: 33%
- Graduated college or more: 54%***

By Employment Status
- Working: 47%****
- Not working: 33%

*Statistically significantly different from pregnant women who are under 35 at the 95% confidence level
**Statistically significantly different from pregnant women who are not white and/or are Hispanic at the 95% confidence level
***Statistically significantly different from pregnant women who have completed some college or less at the 95% confidence level
****Statistically significantly different from pregnant women who are not working at the 95% confidence level
% among pregnant women who got the H1N1 flu vaccine* saying they got the H1N1 flu vaccine at a...

- Obstetrician/Midwife’s office: 50%
- Health clinic: 20%
- Primary care doctor’s office: 15%
- Somewhere else: 13%
- Pharmacy: 3%

*n = 277

Pregnant Women Who Got the H1N1 Flu Vaccine During Pregnancy

% among pregnant women who got the H1N1 flu vaccine* who got it…

While pregnant: 89%
Before pregnant: 11%

*n = 277
H1N1 Vaccination Among Pregnant Women Since October 2009

% Among Pregnant Women

- Got H1N1 vaccine for themselves while pregnant: 37%
- Got H1N1 vaccine for themselves before pregnant: 5%
- Intend to get H1N1 vaccine for themselves by the end of March 2010: 8%
- Not sure if they will get the H1N1 vaccine for themselves by the end of March 2010: 13%
- Do NOT intend to get H1N1 vaccine for themselves by the end of March 2010: 37%

### Reasons Pregnant Women Will Not/Are Not Sure About Trying to Get H1N1 Vaccine for Themselves

<table>
<thead>
<tr>
<th>Reason</th>
<th>% of pregnant women* saying “major reason”…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concern about safety risks to baby</td>
<td>62%</td>
</tr>
<tr>
<td>Concern about safety risks to self</td>
<td>59%</td>
</tr>
<tr>
<td>Don’t think would get very sick if got H1N1</td>
<td>15%</td>
</tr>
<tr>
<td>Don’t think at risk of getting H1N1</td>
<td>15%</td>
</tr>
<tr>
<td>If get H1N1, can get medication to treat it</td>
<td>11%</td>
</tr>
<tr>
<td>Health care provider recommended wait or not get it at all</td>
<td>11%</td>
</tr>
<tr>
<td>Cannot afford to pay for the H1N1 flu vaccine</td>
<td>4%</td>
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</table>

*Among pregnant women who said they will not or are not sure about trying to get the H1N1 vaccine for themselves by the end of March 2010 (n=216) Harvard Opinion Research Program, Harvard School of Public Health, January 26-February 26, 2010.
II. Information Sources and Messaging about the H1N1 Vaccine
• Sources of information that are most important to pregnant women about keeping themselves and the baby they are expecting healthy from H1N1 flu are their baby’s doctor, their obstetrician or midwife, and, to a lesser extent, their general doctor.

• Nearly two-thirds of pregnant women (62%) discussed getting the H1N1 flu vaccine while pregnant with their health care provider. Among those pregnant women who did so, 80% were told that they should get the H1N1 flu vaccine while they are pregnant.

• Most pregnant women have heard either “a lot” or “some” about the H1N1 flu vaccine.

• Most pregnant women (82%) know that the current public health recommendation is for pregnant women to get the H1N1 flu vaccine.

• A third (32%) of pregnant women know that getting the H1N1 flu vaccine provides protection to their baby against H1N1, but 12% do not believe that this is true and a majority (55%) say that they do not know if it provides protection to their baby against H1N1.

• About half (52%) of pregnant women know that they are more likely than others to become seriously ill from H1N1. However, almost the same percentage of pregnant women either believe that they are not more likely than others to get seriously ill from H1N1 (13%) or do not know whether pregnant women are more likely than others to get seriously ill from H1N1 (35%).

• Two-thirds (67%) of pregnant women believe the H1N1 flu vaccine is safe (26% very, 41% somewhat) for pregnant women to take. In addition, pregnant women believe the seasonal flu vaccine is safer than the H1N1 flu vaccine for pregnant women, women who are breastfeeding, children 6 months to 1 year old, and, generally, for most people to take.
# Pregnant Women’s Sources of Information

% of pregnant women* saying the following is a “very important” source of information about keeping themselves and the baby they are expecting healthy from H1N1 flu

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Their obstetrician or midwife</td>
<td>70%</td>
</tr>
<tr>
<td>Their general doctor – other than their obstetrician or midwife</td>
<td>50%</td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention, or CDC’s telephone line/website</td>
<td>42%</td>
</tr>
<tr>
<td>Friends or family members employed in field of health care</td>
<td>39%</td>
</tr>
<tr>
<td>Their state or local public health department</td>
<td>34%</td>
</tr>
</tbody>
</table>

*Split sample

Pregnant Women’s Sources of Information

% of pregnant women* saying the following is a “very important” source of information about keeping themselves and the baby they are expecting healthy from H1N1 flu

<table>
<thead>
<tr>
<th>Source</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Their own mom</td>
<td>31%</td>
</tr>
<tr>
<td>Online pregnancy sites</td>
<td>21%</td>
</tr>
<tr>
<td>Other family members</td>
<td>18%</td>
</tr>
<tr>
<td>Television or radio news</td>
<td>17%</td>
</tr>
<tr>
<td>Other pregnant women</td>
<td>17%</td>
</tr>
<tr>
<td>Social network sites like Facebook</td>
<td>7%</td>
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</table>

*Split sample
Pregnant Women’s Discussions About Getting the H1N1 Vaccine with Health Care Provider (HCP)

Pregnant Women who discussed getting the H1N1 vaccine while pregnant with HCP

- No: 38%
- Yes: 62%

HCP Recommendation*

- Get: 80%
- No Rec: 14%
- Do not get: 7%

*n=377

Pregnant Women’s Exposure to Information about the H1N1 Flu Vaccine

% among pregnant women, when asked how much they have heard about the H1N1 flu vaccine, saying they have heard...

- A lot: 41%
- Some: 45%
- A little: 12%
- Nothing at all: 2%

Awareness Among Pregnant Women of Current Public Health Recommendations Regarding H1N1 Vaccination

% of pregnant women saying the current public health recommendation is that…

- Pregnant women should get the H1N1 vaccine: 82%
- Pregnant women should NOT get the H1N1 vaccine: 15%

Knowledge Among Pregnant Women of Benefits of H1N1 Vaccination During Pregnancy

% of pregnant women saying

- Getting H1N1 vaccine while pregnant provides baby with protection against H1N1: 32%
- Getting H1N1 vaccine while pregnant does NOT provide baby with protection against H1N1: 12%
- Not sure if getting H1N1 vaccine while pregnant provides baby with protection against H1N1: 55%

Assessment of Risk from H1N1: Pregnant Women’s Knowledge as to Whether They are More Likely to Get Seriously Ill than Others

% of pregnant women saying

- Pregnant women are more likely to get seriously ill from H1N1: 52%
- Pregnant women are NOT more likely to get seriously ill from H1N1: 13%
- Don’t know whether pregnant women are more likely to get seriously ill from H1N1: 35%

### View of Pregnant Women on Safety of H1N1 Flu Vaccine

<table>
<thead>
<tr>
<th>Safety Category</th>
<th>Very</th>
<th>Somewhat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe generally for most people to take</td>
<td>28%</td>
<td>51%</td>
</tr>
<tr>
<td>Safe for children 6 months to 1 year to take</td>
<td>18%</td>
<td>43%</td>
</tr>
<tr>
<td>Safe for pregnant women to take</td>
<td>26%</td>
<td>41%</td>
</tr>
<tr>
<td>Safe for women who are breastfeeding to take</td>
<td>21%</td>
<td>44%</td>
</tr>
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</table>

View of Pregnant Women on Safety of Seasonal Flu Vaccine

% of pregnant women saying the seasonal flu vaccine is…

- Safe generally for most people to take
  - “Very”: 47%
  - “Somewhat”: 39%

- Safe for children 6 months to 1 year to take
  - “Very”: 30%
  - “Somewhat”: 45%

- Safe for pregnant women to take
  - “Very”: 35%
  - “Somewhat”: 46%

- Safe for women who are breastfeeding to take
  - “Very”: 32%
  - “Somewhat”: 45%

III. Factors Related to H1N1 Vaccination Decision: Experiences and Attitudes
Several possible explanatory variables had a significant relationship to the uptake of the H1N1 flu vaccine among pregnant women:

- Pregnant women who have received the seasonal flu vaccine since September 2009 were more likely to have gotten the H1N1 flu vaccine than those who did not (74% v. 21%).

- Pregnant women who knew that they are greater risk of becoming seriously ill from H1N1 than the general population were more likely to have gotten the H1N1 flu vaccine than those who did not know or believe this (54% v. 28%).

- Pregnant women who knew that the H1N1 flu vaccine provides protection against H1N1 for their baby were more likely to have gotten the H1N1 flu vaccine than those who did not know or believe this (54% v. 36%).

- Pregnant women who received a recommendation from their health care provider to get the H1N1 flu vaccine while they are pregnant were more likely to have gotten the H1N1 flu vaccine than those who did not receive such a recommendation (65% v. 18%).
H1N1 Vaccination Among Pregnant Women:
By Seasonal Flu Vaccination Status

% Who Got the H1N1 Vaccine for Themselves

Among pregnant women who have received the seasonal flu vaccine since September 2009 (n = 237) 74%*

Among pregnant women who have NOT received the seasonal flu vaccine since September 2009 (n = 275) 21%

*Statistically significantly different from pregnant women have not received the seasonal flu vaccine since September 2009 at the 95% confidence level

H1N1 Vaccination Among Pregnant Women: By Belief about Pregnancy Risk

% Who Got the H1N1 Vaccine for Themselves

Among pregnant women who believe pregnant women are at greater risk of becoming seriously ill from H1N1 (n = 310) 54%*

Among pregnant women who do not know or do not believe that pregnant women are at greater risk of becoming seriously ill from H1N1 (n = 203) 28%

*Statistically significantly different from pregnant women who do not know or do not believe this at the 95% confidence level

H1N1 Vaccination Among Pregnant Women: By Belief about Benefit to Fetus

% Who Got the H1N1 Vaccine for Themselves

Among pregnant women who believe that the H1N1 flu vaccine provides protection against H1N1 flu for their baby (n = 186)

Among pregnant women who do not know or do not believe that the H1N1 flu vaccine provides protection against H1N1 flu for their baby (n = 328)

*Statistically significantly different from pregnant women who do not know or do not believe this at the 95% confidence level

Among pregnant women who received a recommendation from their HCP to get the H1N1 flu vaccine while pregnant (n = 326)

% Who Got the H1N1 Vaccine for Themselves

65%*

Among pregnant women who did not receive a recommendation from their HCP to get the H1N1 flu vaccine while pregnant (n = 187)

18%

*Statistically significantly different from pregnant women who did not receive a recommendation from their HCP to get the H1N1 flu vaccine while pregnant at the 95% confidence level

IV. Non-Pharmaceutical Flu Prevention Behaviors
Summary Points

• Most pregnant women (85%) say that, since the beginning of their pregnancy, they have washed or sanitized their hands more frequently to reduce the chance that they would get H1N1. Fewer pregnant have adopted the other two behaviors asked about as a means of reducing their chance of getting H1N1. Two-thirds of pregnant women (68%) report taking steps to avoid being near someone who has flu-like symptoms and a third (31%) have avoided places whether many people are gathered. A quarter (25%) of pregnant women did ALL of these flu prevention behaviors.

• The vast majority of pregnant women (90%) say that the H1N1 outbreak has had no impact on their consideration of breastfeeding. Only 8% of pregnant women say the H1N1 outbreak has made them more likely to consider breastfeeding.
Flu Prevention Behaviors Among Pregnant Women

% of pregnant women saying, since the beginning of their pregnancy, they have done the following to reduce the chance that they would get H1N1

- Washed hands or used hand sanitizer more frequently: 85%
- Taken any steps to avoid being near someone who has flu-like symptoms: 68%
- Avoided places where many people are gathered together: 31%
- Did ALL of these things: 25%

Breastfeeding Intent of Pregnant Women

% of pregnant women saying, in the first few weeks, they intend to....

Breastfeed only: 57%
Feed formula only: 10%
Breastfeed and feed formula: 30%
Don’t know yet: 4%

Effect of H1N1 Outbreak on the Intent of Pregnant Women to Breastfeed

% of pregnant women saying H1N1 outbreak has...

- Made them more likely to consider breastfeeding: 8%
- Made them less likely to consider breastfeeding: 1%
- Had no impact on their consideration of breastfeeding: 90%

V. Experiences with H1N1 and Treatment
Summary Points

• Seven percent of pregnant women have been sick with an illness they believe was H1N1 since the beginning of their pregnancy.

• Pregnant women who have not been sick with H1N1 were given a hypothetical scenario in which they did become sick with H1N1 flu and were asked how they would respond:

  • A majority (59%) would contact their health care provider right away when they first had flu-like symptoms.

  • However, a third (33%) would contact their health care provider after a few days of having flu-like symptoms and 8% would not contact their health care provider at all.

  • If they had a fever during this time, 73% say they would take acetaminophen to reduce their fever, while 21% would take no medicine.

• Pregnant women who knew that they were at greater risk of becoming seriously ill from H1N1 were more likely to say:

  • that they would contact their health care right away when they first had flu-like symptoms than those who did not know or believe this (67% v. 50%).

  • that they would take acetaminophen, also known as Tylenol, to reduce their fever, if they became sick with H1N1 than those who did not know or believe this (82% v. 64%).
Experience of Pregnant Women with H1N1 and Fever

% of pregnant women saying

Had H1N1 with fever
6%

Had H1N1 without fever
1%

Did not have H1N1
93%

7% of pregnant women have been sick with an illness they believe was H1N1 since the beginning of their pregnancy

Pregnant Women and H1N1: Contacting Health Care Provider (HCP)

% of pregnant women* saying, if they got flu-like symptoms and thought it was H1N1, they would be most likely to…

- Contact their HCP right away when first had flu-like symptoms: 59%
- Contact HCP after a few days of having flu-like symptoms: 33%
- Not contact HCP at all: 8%

*Among pregnant women who have not had H1N1 (n=485)

Pregnant Women and H1N1: Taking Medication While Sick to Reduce Fever

% of pregnant women* saying, to reduce their fever, they would…

- **Take acetaminophen, also known as Tylenol**: 73%
- **Take other medicine, such as aspirin or ibuprofen (Advil)**: 2%
- **Take other over the counter medicines (like Nyquil) or herbal remedies**: 3%
- **Take no medicine**: 21%

*Among pregnant women who have not had H1N1 (n=485)

Contacting Health Care Provider (HCP): By View of Pregnancy Risk

% of pregnant women saying they would most likely contact their HCP right away when they first had flu-like symptoms

Among pregnant women who knew that they are at greater risk of becoming seriously ill from H1N1 (n = 290) 67%*

Among pregnant women who did NOT know or believe that they are at greater risk of becoming seriously ill from H1N1 (n = 194) 50%

*Statistically significantly different from pregnant women who do not know or do not believe this at the 95% confidence level

Taking Medication While Sick to Reduce Fever: By View of Pregnancy Risk

% of pregnant women saying if they became sick with H1N1 and had a fever, they would most likely take acetaminophen, also known as Tylenol, to reduce the fever.

Among pregnant women who knew that they are at greater risk of becoming seriously ill from H1N1 (n = 290)

Among pregnant women who did NOT know or believe that they are at greater risk of becoming seriously ill from H1N1 (n = 194)

82%*
64%

*Statistically significantly different from pregnant women who do not know or do not believe this at the 95% confidence level

VI. Beliefs and Behaviors Related to Antiviral Medication
Summary Points

• Two-thirds (67%) of pregnant women view antiviral medication as either “very” (8%) or “somewhat safe” (59%) for pregnant women who are sick with H1N1. Also, a majority (59%) of pregnant women believe that antiviral medication is safe (8% very, 51% somewhat) for women who are breastfeeding and sick with H1N1.

• When pregnant women who have not been sick with H1N1 were asked about a hypothetical scenario in which they did become sick with H1N1:

  • Three-quarters (77%) say they would take antiviral medication while pregnant if their health care provider recommended that they do so. However, one in five (22%) say they would not take antiviral medication while they are pregnant, even if their health care provider recommended it.

  • Most (82%) pregnant women who said that they would not take antiviral medication if their health care provider recommended it say that safety risks to their baby would be a “major reason” for their decision.

• Pregnant women holding two beliefs were more likely than their counterparts to say they would not take antiviral medication if they became sick with H1N1, even if their health care provider recommended that they do so:

  • Pregnant women who did not know or did not believe that they are at greater risk of becoming seriously ill from H1N1 vs. those who did know (28% v. 15%).

  • Pregnant women who think that antiviral medication is not safe for pregnant women vs. those who think that antiviral medication is safe for such women (52% v. 8%).
Views of Pregnant Women on Safety of Antivirals: For Pregnant Women Sick with H1N1

% of pregnant women saying

- Very safe: 9%
- Somewhat safe: 58%
- Not very safe: 22%
- Not at all safe: 8%

Views of Pregnant Women on Safety of Antivirals: For Women Who are Breastfeeding and Sick with H1N1

% of pregnant women saying

- Very safe: 8%
- Somewhat safe: 51%
- Not very safe: 28%
- Not at all safe: 11%

Pregnant Women and H1N1: Taking Antiviral Medication Upon Recommendation of Health Care Provider

% of pregnant women* saying, if their health care provider recommended that they take antiviral medication while sick with H1N1, they would…

Take the antiviral medication: 77%

NOT take the antiviral medication: 22%

*Among pregnant women who have not had H1N1 (n=485)

Reasons Pregnant Women Would Not Take Antiviral Medication While Sick with H1N1, Even with Recommendation from Health Care Provider

% of pregnant women* saying “major reason”…

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Concern about the safety risks to baby</td>
<td>82%</td>
</tr>
<tr>
<td>Concern about safety risks to self</td>
<td>42%</td>
</tr>
<tr>
<td>Could not afford to pay for antiviral medication</td>
<td>13%</td>
</tr>
</tbody>
</table>

*Among pregnant women who have not had H1N1 and would not take antiviral medication if HCP recommended such medicine while sick with H1N1 (n=100)

Taking Antiviral Medication Upon Recommendation of Health Care Provider: By View of Pregnancy Risk

% of pregnant women* saying, if their health care provider recommended that they take antiviral medication while sick with H1N1, they would NOT take the antiviral medication

Among pregnant women who knew that they are at greater risk of becoming seriously ill from H1N1 (n = 290)

15%

Among pregnant women who did NOT know or believe that they are at greater risk of becoming seriously ill from H1N1 (n = 194)

28%*

*Statistically significantly different from pregnant women who did know this at the 95% confidence level

Taking Antiviral Medication Upon Recommendation of Health Care Provider: By View of Safety of Antiviral Medication

% of pregnant women* saying, if their health care provider recommended that they take antiviral medication while sick with H1N1, they would NOT take the antiviral medication

Among pregnant women who think antiviral medication is safe for pregnant women to take while sick (n = 342)

8%

Among pregnant women who think antiviral medication is NOT safe for pregnant women to take while sick (n = 133)

52%*

*Statistically significantly different from pregnant women who think antiviral medication is safe for pregnant women to take while sick at the 95% confidence level

Methods Summary

• Representative online poll of pregnant women
  • Interviews collected among a representative national sample of women aged 18 to 50 on Knowledge Network’s KnowledgePanelSM and then identified as pregnant, and also among an email opt-in panel of pre-identified pregnant women

• 514 pregnant women in total; the margin of error is +/- 6.1% for pregnant women at the 95% confidence level

• Conducted January 26-February 26, 2010

• Two weighting strategies: Knowledge Networks panelist data weighted to U.S. Census and population benchmarks specifically for pregnant women were developed from Knowledge Networks panelists who responded to the survey
  • Data were ultimately weighted by: age, trimester, race/ethnicity, geographic region, metropolitan status, income, education, and primary language proficiency among Hispanics

• This poll was conducted in parallel with a poll of women with infants under 1 year old.