Vermont PRAMS Data Brief
Influenza Vaccine 2009-2011

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a survey of women who recently gave birth that asks about their experiences and behaviors before, during and shortly after their pregnancy. Vermont has participated in PRAMS since 2001.

In 2009, Vermont PRAMS added a supplemental set of questions concerning the 2009 influenza season. This included a special set of questions on H1N1 flu vaccine, which was offered separately from the seasonal flu vaccine. Vermont continued to participate in the next two years, placing supplemental flu questions on the PRAMS survey during the 2010 flu season and the first few months of the 2011 flu season.1

This report presents highlights from these survey questions. Questions varied from year to year, limiting some comparisons across years. Detailed question text is presented at the end of this report.

Vaccination rates
The 2009 flu survey supplement has questions on two separate vaccines: the H1N1 and the seasonal flu vaccine.

- During the 2009 flu season, 81% of women got either the H1N1 or seasonal flu shot.
  - 67% got the seasonal shot
  - 69% got the H1N1 shot

- During the 2010 flu season, 65% of women got the seasonal flu shot.
  - Of those, 79% got the flu shot during their pregnancy, and 21% obtained the shot after their baby was born.

- Data for 2011 is only available for births through 12/31/2011. For this timeframe, 55% of women reported getting the seasonal flu shot. For comparison, figures are presented below from prior years with similar time restrictions:

<table>
<thead>
<tr>
<th>Year and month of birth included in calculation</th>
<th>2009 (Sept-Dec)</th>
<th>2010 (Sept-Dec)</th>
<th>2011 (Sept-Dec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Got seasonal flu shot:</td>
<td>68 %</td>
<td>62 %</td>
<td>55 %</td>
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</table>

The percent getting early flu shots in 2011 is significantly lower than the percent getting an early seasonal flu shot in 2009.

- Of those vaccinated in 2011, 18% got the shot before pregnancy and 82% during pregnancy.

Health care workers’ advice about flu vaccine

- During the 2009 flu season, 92% of women had a doctor, nurse or other health care worker offer them a flu shot or tell them to get one (either H1N1 or seasonal).
  - 89% had a provider offer an H1N1 shot to them or tell them to get that vaccine
  - 84% had a provider offer a seasonal flu shot to them or tell them to get one

- During both the 2010 and 2011 flu seasons, nearly 80% of women had a provider offer or recommend the flu vaccine.

- Women who had a provider offer or recommend a flu shot were significantly more likely to get the flu shot than those who did not get such counseling from a provider.

1 ‘2009’ denotes the flu season bridging calendar years 2009-10. Similarly, ‘2010’ indicates the 2010-11 flu season. ‘2011’ has data from births occurring the first 3½ months of the 2011-2012 flu season (September-December 2011).
Where the flu shot was obtained

- In 2009, the vast majority of women got the H1N1 shot at their Ob/Gyn doctor's office (74%), followed by another doctor's office (11%) and work or school (12%).
- In 2010, 73% of women got their seasonal shot at a doctor's office (50% Ob/Gyn, 23% from another doctor), while 12% reported getting their shot at work or school, and 9% at the hospital.

Demographic differences in obtaining flu vaccine

Information for 2010 was chosen to display demographic differences, since it covers an entire flu season, and involves a single vaccine. In 2010, lower rates of vaccination were found among those under age 24, those at or below 200% of poverty, Medicaid and WIC enrollees, the unmarried, and those with inadequate prenatal care.

Reasons for not getting the flu vaccine

- During the 2009 flu season, 30% of women did not receive the H1N1 vaccine, with a similar percent not getting the seasonal vaccine. During that period, just under 19% received neither H1N1 nor seasonal shots.
- In 2009, the most common reasons for not obtaining a flu shot were:
  - The mother doesn’t normally get the flu shot
  - Worry that the shot might harm the baby
  - Worries about side effects for herself
  Concern about side effects and harm to the baby were more prominent for the H1N1 vaccine (> 60%) as compared to the seasonal vaccine (45%).
  - Lack of availability of the H1N1 vaccine was a reason given by 39% of those not obtaining that vaccine.
- In 2010, 35% of women did not receive a flu shot. Common reasons given for not getting a shot were as follows:
  - The mother doesn’t normally get the flu shot
  - “Not worried about getting the flu” was reported by 55% as a reason
  - Concerns about side effects and harm to the baby were reported at about the same proportion as the 2009 seasonal flu.

Flu-like symptoms, diagnosis of flu, and hospitalization for flu

2009

- 17% of women indicated they were sick with a fever during their most recent pregnancy
- 7% had been diagnosed with flu by a health care worker during pregnancy
  - Of those with a flu diagnosis, about 1 in 5 were hospitalized with the flu.

2010

- 16% of women indicated they were sick with a fever during their most recent pregnancy
- Only 2.3% had been diagnosed with flu by a health care worker during pregnancy
  - Of those with a flu diagnosis, 1 in 10 were hospitalized with the flu.

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Women who got a flu shot, by flu season

Women who had a Health Care Worker offer them a flu shot or tell them to get a flu shot, by flu season

Percent receiving flu shot by whether or not a provider counseled them to get one

Where was the H1N1 (2009) or Seasonal Flu Shot (2010) Obtained?

Reasons for not getting a flu shot

Women with flu-like symptoms, flu diagnosis, 2009 and 2010

NOTES:
† Dashed line denotes seasonal flu data restricted to September to December births, for comparison to 2011
* 2009 H1N1 and seasonal data were combined
** 2011 includes data from live births September to December 2011 only
^ Categories present in 2010 only
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Did not get flu vaccine, % within each indicator, 2010

Age of mother  Mother's Education  Family Income

Did not get flu vaccine, % within each indicator, 2010
(continued)

1st live birth?  Birthweight  Pregnancy Intendedness  Smoked Before Pregnancy  Total # of Stressors  Adequacy of Prenatal Care
### Supplemental Flu Question Wording by Flu Season

<table>
<thead>
<tr>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>During your most recent pregnancy, did you get an H1N1 flu shot?  □ Yes □ No</td>
<td>Since August 1, 2010, did you get a flu shot?  □ Yes □ No</td>
<td>During the 12 months before the delivery of your new baby, did you get a flu shot?  □ No □ Yes, before your pregnancy □ Yes, during your pregnancy</td>
</tr>
<tr>
<td>Since September 2009, did you get a seasonal flu shot? This is different than the H1N1 flu shot. □ Yes □ No</td>
<td>Did you get the flu shot during or after your most recent pregnancy? □ During my pregnancy □ After I delivered my baby</td>
<td></td>
</tr>
<tr>
<td>Where did you get your H1N1 flu shot? □ A pharmacy, drug store or grocery store □ My obstetrician/ gynecologist’s office □ My family doctor or other doctor’s office □ A health department or community clinic □ My work place or school □ Other place ______</td>
<td>Where did you get your flu shot? □ My obstetrician or gynecologist’s office □ My family doctor or other doctor’s office □ A health department or community clinic □ A hospital □ A pharmacy, drug store or grocery store □ My work place or school □ Other place ______</td>
<td></td>
</tr>
<tr>
<td>What were your reasons for not getting the H1N1 flu shot during your most recent pregnancy? □ My doctor didn’t mention anything about the H1N1 flu shot during pregnancy □ The H1N1 flu shot was not available □ I was worried about side effects H1N1 flu shot for me □ I was worried that the H1N1 flu shot might harm my baby □ I don’t normally get a flu shot □ Other reason ______</td>
<td>What were your reasons for not getting a flu shot since August 1, 2010? □ My doctor didn’t mention anything about getting a flu shot □ I was worried about side effects of the flu shot for me □ I was worried that the flu shot might harm my baby □ I was not worried about getting sick with the flu □ I do not think the flu shot works □ I don’t normally get a flu shot □ Other reason ______</td>
<td></td>
</tr>
<tr>
<td>What were your reasons for not getting a seasonal flu shot during your most recent pregnancy? □ My doctor didn’t mention anything about a seasonal flu shot during my pregnancy □ I was worried about side effects of the seasonal flu shot for me □ I was worried that the seasonal flu shot might harm my baby □ I don’t normally get a seasonal flu shot □ Other reason ______</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At any time during your most recent pregnancy, were you sick with a fever? □ Yes □ No</td>
<td></td>
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</tr>
<tr>
<td>At any time during your most recent pregnancy, did a doctor, nurse or other health care worker tell you that you had the flu? Please include seasonal flu and H1N1 flu. □ Yes □ No</td>
<td>At any time during your most recent pregnancy, did a doctor, nurse or other health care worker tell you that you had the flu? □ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>Were you hospitalized for the flu during your most recent pregnancy? Please include seasonal flu and H1N1 flu. □ Yes □ No</td>
<td>Were you hospitalized for the flu during your most recent pregnancy? □ Yes □ No</td>
<td></td>
</tr>
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</table>
Other PRAMS Questions / calculation used in this brief:

12. Thinking back to just before you got pregnant with your new baby, how did you feel about becoming pregnant?
   - I wanted to be pregnant sooner
   - I wanted to be pregnant later
   - I wanted to be pregnant then
   - I didn’t want to be pregnant then or at any time in the future

Note: Mothers checking the first or third choice are considered to have an intended pregnancy.

31. During your most recent pregnancy, were you on WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children)?
   - No
   - Yes

35. In the 3 months before you got pregnant, how many cigarettes did you smoke on an average day? (A pack has 20 cigarettes.)
   - 41 cigarettes or more
   - 21 to 40 cigarettes
   - 11 to 20 cigarettes
   - 6 to 10 cigarettes
   - 1 to 5 cigarettes
   - Less than 1 cigarette
   - I didn’t smoke then

43. This question is about things that may have happened during the 12 months before your new baby was born. For each item, circle Y (Yes) if it happened to you or circle N (No) if it did not.

   a. A close family member was very sick and had to go into the hospital . . . . . . . . . . . . . . N Y
   b. I got separated or divorced from my husband or partner . . . . . . . . . . . . . . . . . . . . . N Y
   c. I moved to a new address . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . N Y
   d. I was homeless . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . N Y
   e. My husband or partner lost his job . . . . . . . . N Y
   f. I lost my job even though I wanted to go on working . . . . . . . . . . . . . . . . . . . . . N Y
   g. I argued with my husband or partner more than usual . . . . . . . . . . . . . . . . . . . . N Y
   h. My husband or partner said he didn’t want me to be pregnant . . . . . . . . . . . . . . . . . . . N Y
   i. I had a lot of bills I couldn’t pay . . . . . . . . N Y
   j. I was in a physical fight . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . N Y
   k. My husband or partner or I went to jail . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . N Y
   l. Someone very close to me had a problem with drinking or drugs . . . . . . . . . . . . . . . N Y
   m. Someone very close to me died . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . N Y

83. During the 12 months before your new baby was born, what was your yearly total household income before taxes? Include your income, your husband’s or partner’s income, and any other income you may have received. (All information will be kept private and will not affect any services you are now getting.)

   - Less than $10,000
   - $10,000 to $14,999
   - $15,000 to $19,999
   - $20,000 to $24,999
   - $25,000 to $34,999
   - $35,000 to $49,999
   - $50,000 to $74,999
   - $75,000 or more

84. During the 12 months before your new baby was born, how many people, including yourself, depended on this income?

   __ People

Income Category as a percentage of Federal Poverty Level (FPL):

Household income during the 12 month before birth was classified into percentage of federal poverty level (FPL) by first dividing the mid-point of the self-reported income range (Question 83) by the number of household members (Question 84). The resulting figure was then compared to a poverty threshold as defined by the U.S. Department of Commerce, U.S. Census Bureau definitions. See http://www.census.gov/hhes/www/poverty/data/threshld/index.html.