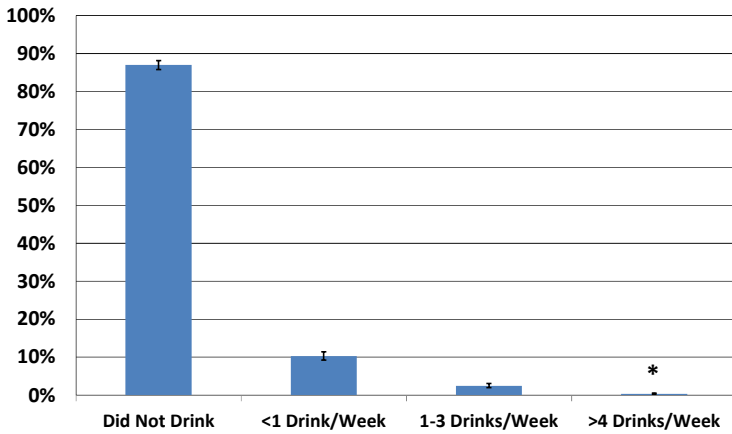


This is a report on the Pregnancy Risk Assessment Monitoring System (PRAMS), a survey conducted on a sample of Vermont women with live births since 2001. This report presents information about alcohol use during pregnancy for Vermont births in the years 2009 through 2011. The CDC reports that no amount of alcohol at any time during pregnancy is safe. Further, to avoid inadvertent fetal exposure to alcohol, it is recommended that women trying to get pregnant avoid drinking alcohol.

How Much are Women Drinking During Pregnancy?

**Number of Drinks Consumed per Week
During Last 3 Months of Pregnancy
Vermont 2009-2011**

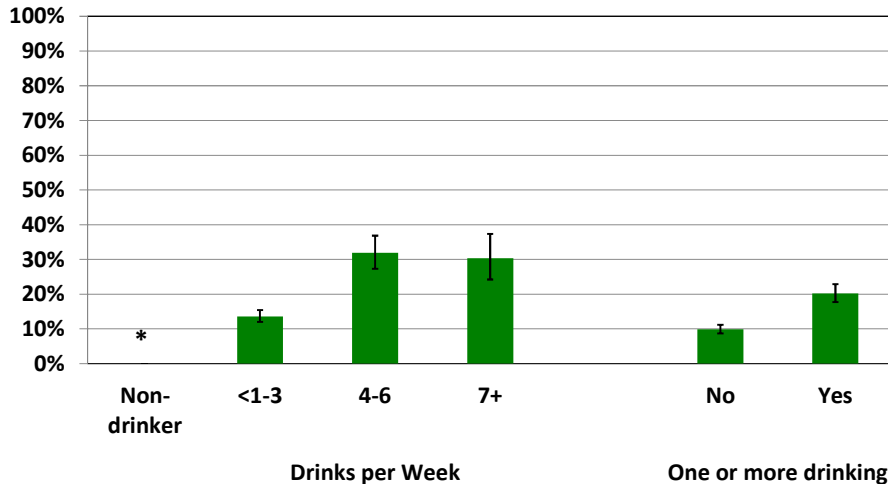


- Eighty-seven percent of Vermont births were to women who did not drink during the last three months of pregnancy.
- Of mothers who did drink during pregnancy, about 20% were drinking one or more drinks per week. (This is about two to three percent of all Vermont women who gave birth.)
- The number of women who reported drinking four or more drinks per week was too low to provide a state-wide estimate.

Which Factors are Associated with Drinking During Pregnancy?

There were significant differences in demographic and behavioral characteristics of the women who drank alcohol in the last three months of their pregnancy. Drinking during the three months before pregnancy—specifically, a greater number of average drinks per week and having had at least one drinking binge—was associated with drinking during pregnancy.

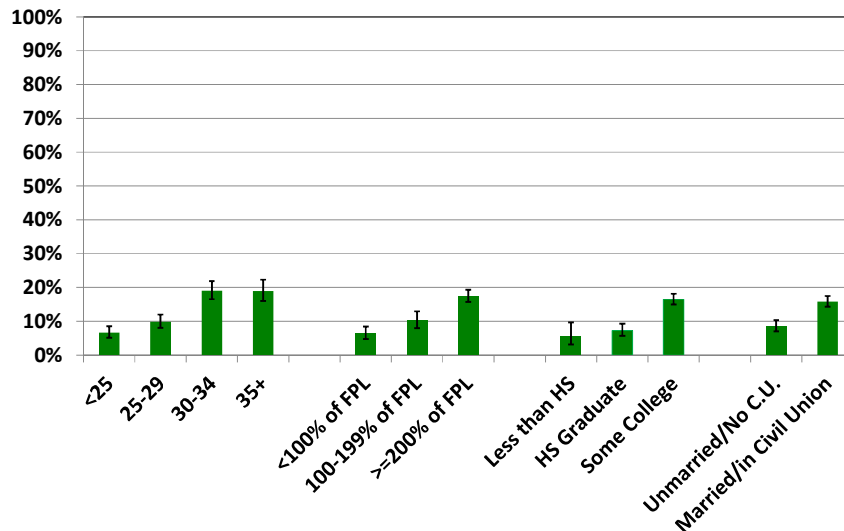
**Drinking During Pregnancy
By Pre-Pregnancy Alcohol Use
Vermont 2009-2011**



*The number of pre-pregnancy non-drinkers who drank during pregnancy was too low to provide an estimate.

Age, income, education, and marital status were also associated with differences in the prevalence of drinking during pregnancy. Unlike other risk behaviors, such as cigarette smoking, women who drink during pregnancy are more likely to be older, higher-educated, married, and in a household with an income at least twice as high as the federal poverty level (FPL).

Rates of Drinking During Pregnancy
Vermont 2009-2011



A logistic regression analysis was used to determine which maternal characteristics were most strongly associated with drinking during pregnancy (Appendix 1). The strongest was the number of drinks per week in the three months leading up to pregnancy. Women who drank four or more drinks per week before pregnancy were around three times as likely to drink during pregnancy. Other significant relationships were:

- Older mothers were more likely to drink during pregnancy than younger mothers. Mothers who were 25-34 were approximately 1.4 times more likely to drink during pregnancy than those who were under 24. Mothers who were older than 35 were approximately 1.4 times more likely to drink during pregnancy than those who were 25-34.
- Mothers who were married or in a civil union at the time of the birth were 1.4 times more likely to drink during pregnancy.
- Mothers who had attended college for any period of time were 1.5 times more likely to drink during pregnancy than mothers who had not attended college.

Income was not associated with drinking during pregnancy in a model that included age, education, marital status, and drinks per week. (Income is associated with each of these demographic variables, so any income-based differences in drinking would have to be particularly large to be significant in a model that included all of them.)

WIC Enrollment and Non-Drinking

Women who enroll in WIC are likely to be younger and of lower income, two factors that correlate with lower drinking before and during pregnancy. Even when considering these relevant demographic factors, however, WIC enrollment was associated with a lower likelihood of drinking during pregnancy. Based on a logistic regression model (Appendix 2) that included age, income, education, and drinking before pregnancy, women enrolled in WIC were about two-thirds as likely to drink during pregnancy as women not enrolled in WIC.

Alcohol Use Before and During Pregnancy: Vermont PRAMS 2009-2011, Part 2

Appendix 1: Logistic regression model for drinking during the last three months of pregnancy

	Odds Ratio	95% CI		Odds Ratio	95% CI
Four or more drinks/week during 3 months before pregnancy	3.046	2.394 - 3.875		Attended College	1.510 1.093 - 2.085
Married/Civil Union	1.412	1.016 - 1.962		Age(35+ vs. <24)	1.955 1.273 - 3.001

Model also included income (not significant in model) and whether a health care worker advised the woman not to drink during pregnancy (which was significant; discussed in forthcoming data brief to be available at <http://healthvermont.gov/research/PRAMS/PRAMSDataBriefs.aspx#top>.)

Appendix 2: Logistic regression model for WIC and drinking during pregnancy

	Odds Ratio	95% CI	
Enrolled in WIC during pregnancy	0.640	0.438 - 0.936	Also included in model: Age group; drinks per week before pregnancy; income; highest attained level of education

The following PRAMS questions were used for this data brief

Have you had any alcoholic drinks in the *past 2 years*?

During the *3 months before* you got pregnant, how many alcoholic drinks did you have in an average week?

- 14 drinks or more a week
- 7 to 13 drinks a week
- 4 to 6 drinks a week
- 1 to 3 drinks a week
- Less than 1 drink a week
- I didn't drink then

During the *3 months before* you got pregnant, how many times did you drink 4 alcoholic drinks or more in one sitting?

- 6 or more times
- 4 to 5 times
- 2 to 3 times
- 1 time
- I didn't have 4 drinks or more in 1 sitting

During your *most recent pregnancy*, were you on WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children)?

During the *last 3 months* of your pregnancy, how many alcoholic drinks did you have in an average week?

- 14 drinks or more a week
- 7 to 13 drinks a week
- 4 to 6 drinks a week
- 1 to 3 drinks a week
- Less than 1 drink a week
- I didn't drink then

During the *last 3 months* of your pregnancy, how many times did you drink 4 alcoholic drinks or more in one sitting? A sitting is a two hour time span.

- 6 or more times
- 4 to 5 times
- 2 to 3 times
- 1 time
- I didn't have 4 drinks or more in 1 sitting

Data brief written by statistics intern Katherine King and Vermont PRAMS. Questions or comments about this report may be directed to John Davy at (802)863-7661 or john.davy@state.vt.us. More information about Vermont PRAMS can also be found at <http://healthvermont.gov/research/PRAMS/prams.aspx>.