Utah PRAMS Data Book 2007-2008

Pregnancy Risk Assessment Monitoring System

UTAH DEPARTMENT OF HEALTH
MATERNAL AND INFANT HEALTH PROGRAM

Utah PRAMS Data Book
2007-2008

Utah Department of Health
Division of Family Health and Preparedness
Maternal and Child Health Bureau
Maternal and Infant Health Program

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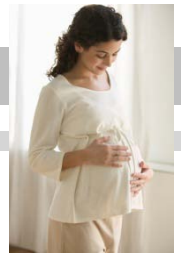

"My babies are all healthy and it makes me sad to hear about others who aren't as lucky."
~A PRAMS Mom

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Introduction

Surveillance is the ongoing, systematic collection of population-based data. The data collected can be used to describe behaviors associated with a health event or condition. Analysis of these data is used for planning, implementing, and monitoring health programs and for forming policy.

The Utah Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing, population-based, risk factor surveillance system designed to identify and monitor selected maternal experiences and behaviors that occur before, during, and after pregnancy, as well as the child's early infancy experience. PRAMS is part of the Centers for Disease Control and Prevention (CDC) initiative to reduce infant mortality and low birthweight. The CDC established PRAMS in 1987, and data collection started in 1988 in selected states. Utah PRAMS began collecting data in 1999.

The PRAMS questionnaire consists of a series of core questions, which all PRAMS states must include. Each state then has the option of expanding the survey with pre-developed questions from the CDC or state-developed questions.

The sample for PRAMS is all mothers who are Utah residents who delivered a live-born infant within the state, including infants who die after delivery. PRAMS excludes stillbirths, fetal deaths, and induced abortions from its sample. Participants are identified through birth certificate records.

Each month the PRAMS questionnaires are sent out to approximately five percent of Utah women who are 2–6 months postpartum. Up to three paper surveys are mailed, with a telephone follow-up for women who have not responded to the mail survey.

PRAMS uses a stratified random sampling approach to select women to participate and to allow separate estimates of population subgroups and comparisons across these subgroups. Once a full year of data is collected, it is then weighted by the CDC to represent the birth population for that year and adjusted for sampling probabilities, nonresponse, and noncoverage.

Each stratum must achieve a weighted response rate of 70% or it is not considered representative of that population. For this time period, a 70% response rate was not achieved in all racial categories and thus cannot be reported independently in this document. Race is therefore reported here as White or Other than White. See the PRAMS website for more detailed information on PRAMS and its methodology:
http://www.cdc.gov/reproductivehealth/srv_prams.htm

For 2007-2008, Utah PRAMS utilized an education/birthweight stratification methodology. Education was separated into three categories: less than high school, high school graduate, and more than high school. Birthweight was defined as less than 2500 grams, or 2500 grams or greater.

This book presents data from 2007 and 2008 Utah PRAMS. During this time period, 110,252 Utah women delivered an infant. Of those, 4,697 were sent a survey, of whom 3,599 completed it, giving an unweighted response rate of 76.6% (weighted response rate of 80.7%).

This report contains data on 44 maternal and child health indicators from the PRAMS questionnaire. When available, the Healthy People 2010 objective for the indicator is given as a benchmark to compare Utah's rate to the national goal.

Introduction

Quotes from PRAMS Respondents

Qualitative data collected from PRAMS respondents have been included within the text as direct quotes. The quotes have been corrected for minor grammatical errors. Where noted, the quotes have been translated from Spanish to English.

Use of Tables

In order to facilitate understanding of the data contained in this report, we have provided a brief explanation on reading the tables. Each table consists of four columns: a description of population characteristics, the percentage of women with a 95% confidence interval, the population estimate, and the p-value.

Sample Table

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**48.7% ± 1.8%**	**48,794**	
Maternal Age			<.0001
≤ 17	78.0% ± 7.8%	1,412	
18 - 19	**72.7%** ± 6.5%	3,020	
20 - 24	55.4% ± 3.2%	**16,952**	
25 - 29	43.9% ± 3.2%	14,783	
30 - 34	42.6% ± 4.3%	8,553	
35 - 39	41.9% ± 6.6%	3,516	
40 +	37.7% ± 14.9%	558	

Total Birth Population

The "Total Birth Population" on each table gives the proportion of women reporting the event for all women with a live birth. Each subsequent category breaks down these women by various characteristics, including age, education, race, Hispanic ethnicity, marital status, and infant birthweight. Indicated categories also show the proportions within these groups.

The 95% confidence interval is the amount added or subtracted to the proportion to get a range that represents the margin of error. A 95% confidence interval means that the probability of observing a value outside of the range is less than 5%. Larger confidence intervals reflect smaller sample sizes.

Population Estimate

The population estimate reflects an estimate of the number of women who reported the event. These numbers are weighted to represent the birth population for the year.

P-value

The p-value indicates whether the difference in proportions between the subgroups is statistically significant, and the level of significance.

Bolding

In both the percentage category and the population estimate category, one group is bolded. The bold in the percentage category indicates which group is at the highest risk. The bold in the population estimate category indicates which group contributes the largest number of women.

Executive Summary

The Utah Department of Health, Pregnancy Risk Assessment Monitoring System (PRAMS) began collecting data in 1999. PRAMS data are intended to help answer questions that birth certificate data alone cannot answer. By publishing data books on a regular basis, it is our hope that the information will be used to guide policy and other efforts to improve care and outcomes for pregnant women and infants in Utah. This data book presents Utah PRAMS data from 2007-2008 and contains information on more than 40 maternal and child health indicators from the PRAMS questionnaire. Key findings include:

- The Healthy People 2010 goal is for 80% of non-pregnant women aged 15-44 years to consume at least 400 mcg. of folic acid each day; however, only 29.8% of Utah PRAMS respondents reported taking a multivitamin every day of the week in the month before pregnancy.

- Among women who entered pregnancy with an obese body mass index, 70% gained more weight during pregnancy than is recommended. Excessive weight gain during pregnancy can lead to long-term weight retention.

- Slightly more than 5% of Utah women who delivered a live birth reported the use of fertility treatments to help them conceive. Of the women who received treatment, 53.4% reported use of fertility enhancing drugs, 12.2% reported use of artificial insemination, 13.8% reported use of assisted reproductive technology such as in vitro fertilization, and 20.2% reported using "other" medical treatments.

- Utah is close to the 70% Healthy People 2010 goal for intended pregnancies (68.1% intended). Of all women with an unintended pregnancy, 41.2% were not using birth control at the time they conceived. Over 30% of women with an unplanned pregnancy thought they couldn't get pregnant when they did. This finding underscores a need for increased education about fertility.

- Nearly one-third of women reported having no insurance prior to pregnancy, which is 18% higher than in the year 2000. Rates of no insurance were higher for younger, less educated women. Nearly 75% of Latinas had no health insurance prior to pregnancy.

Executive Summary

- Only 80% of women entered prenatal care in the first trimester of pregnancy. The Healthy People 2010 goal is for 90% of women to enter care in the first trimester. Among the women with late entry, 40% said they did not get care as early as they wanted. Lack of insurance or money was most often cited for the delay in care.

- The rate of screening for domestic violence has increased nearly 10% over the last decade, reaching 33.3% in 2008. The American College of Obstetricians and Gynecologists recommends screening all pregnant women for physical abuse at multiple points in the perinatal period. The rate of reported physical abuse was 2.2% for this time period and 5.4% reported some form of emotional abuse by their husband or partner.

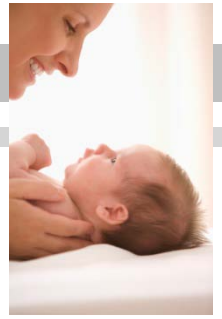
- Reported WIC participation decreased steadily from 2004-2008. Based upon reported incomes, nearly 50% of women who may have qualified for WIC were not enrolled.

- The percentage of women reporting postpartum depression symptoms decreased from 2004 to 2008. The number of women with depression symptoms who did not seek help increased to a high of 68.1% in 2008.

- Close to one-quarter of women reported often or always co-sleeping with their infant. Health care providers should be prepared to discuss safe sleeping arrangements with parents and caregivers.

- There has been an encouraging decline in the percentage of infants with an early hospital discharge who did not see their health care provider within one week of discharge. Since 2000, the rate has declined by more than 50%, reaching a low of 21% in 2008.

- Although Utah met the Healthy People 2010 goal regarding abstinence from alcohol during pregnancy, there is concern that the rate increased from 2006-2008. Women may need additional encouragement from their health care providers to practice healthy behaviors.



Multivitamin Use Before Pregnancy

Percentage of Women Who Reported Not Taking a Multivitamin Prior to Conception

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**48.6% ± 1.8%**	**52,557**	
Maternal Age			<.0001
≤ 17	**70.8%** ± 9.0%	1,432	
18 - 19	68.6% ± 6.9%	3,744	
20 - 24	56.9% ± 3.5%	15,896	
25 - 29	46.2% ± 3.1%	**17,983**	
30 - 34	37.7% ± 3.9%	8,924	
35 - 39	43.0% ± 6.6%	3,605	
40 +	53.5% ± 14.1%	974	
Education Level			<.0001
Less than High School	**71.6%** ± 3.1%	10,673	
Completed High School	57.8% ± 3.2%	**18,773**	
Some College	45.6% ± 3.9%	12,778	
College Graduate	30.0% ± 3.4%	9,230	
Race			<.01
White	47.7% ± 1.8%	**48,681**	
Other than White	**63.2%** ± 7.9%	3,319	
Hispanic Ethnicity			<.0001
Hispanic	**66.4%** ± 3.9%	11,811	
Non-Hispanic	45.0% ± 2.0%	**40,413**	
Marital Status			<.0001
Married	43.0% ± 2.0%	**37,324**	
Unmarried	**71.4%** ± 3.5%	15,234	
Birthweight			NS
<2500 grams	48.1% ± 3.2%	3,076	
2500+ grams	**48.6%** ± 1.9%	**49,461**	

NS Not statistically signficant

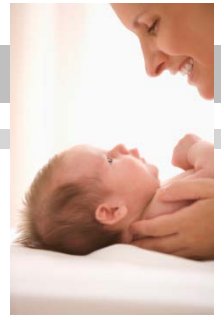
All women between ages 15-44 who can become pregnant should take a multivitamin that contains folic acid to help prevent neural tube defects. Neural tube defects (NTDs) happen in the first 30 days of pregnancy. A NTD is the inadequate closing of the neural tube and can cause severe nerve damage, paralysis, and even death.

NTDs are among the most common birth defects in the United States. Folic acid prevents 70% of all NTDs and the occurrence of NTDs could be greatly reduced if all women of childbearing age were to take a multivitamin containing folic acid. NTDs occur very early in pregnancy, often before a woman knows she is pregnant, so it is important that all women of reproductive age take at least **400 micrograms of folic acid** daily even if they are not planning on becoming pregnant.

Although folic acid use is higher among women in Utah compared to other parts of the US, nearly half of Utah women report not taking a daily multivitamin prior to pregnancy. As a result, more than 25,000 babies born each year in Utah are at an increased risk for preventable NTDs.[1]

1. Utah Department of Health Birth Defects Network. Retrieved from: http://health.utah.gov/birthdefect/defects/neural.html

Multivitamin Use Before Pregnancy

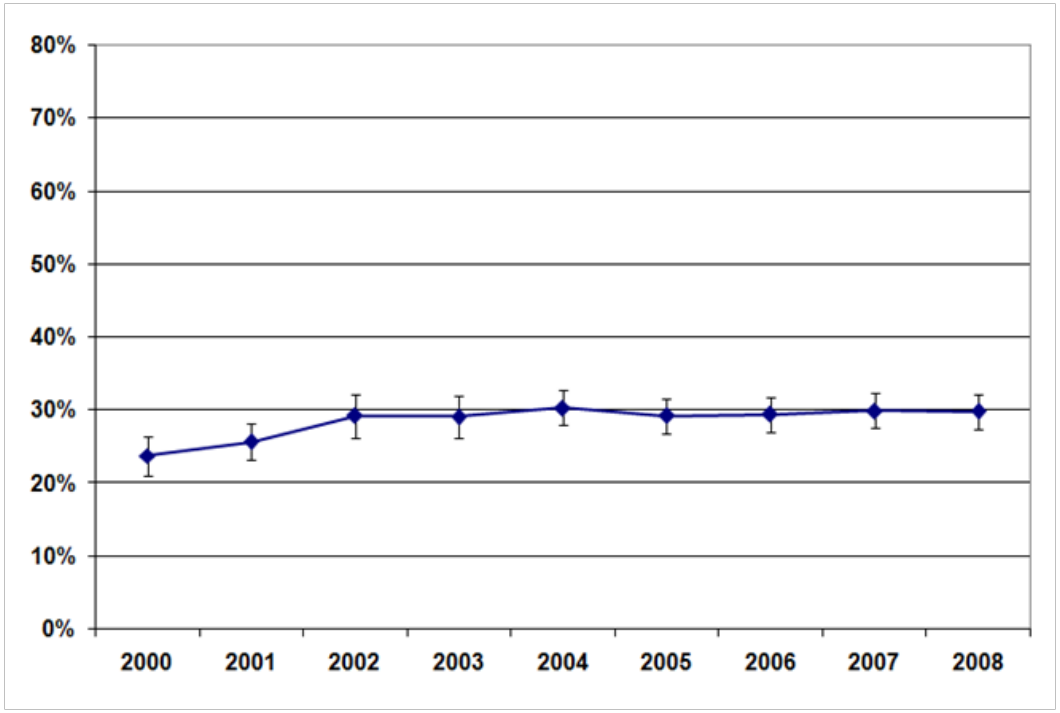


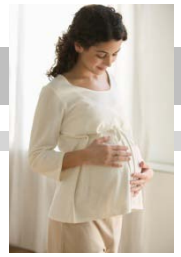
Multivitamin use prior to pregnancy and during very early pregnancy has been shown to reduce risk of birth defects and contribute to healthy pregnancies. The Healthy People 2010 goal was for 80% of non-pregnant women aged 14-55 to consume at least 400 micrograms of folic acid daily. Folic acid comes from greens, legumes, and fortified grain in relatively low doses. The most efficient way to get 400 micrograms is through a daily multivitamin.

However, only 29.8% of women who gave birth in Utah during 2008 reported taking a multivitamin, prenatal vitamin, or folic acid daily during the month before they became pregnant.

"Healthy babies come from healthy mothers."
~A PRAMS Mom

Percentage of Women Who Reported Taking A Multivitamin Every Day of the Week Prior to Conception, 2000-2008





Prepregnancy Underweight Body Mass Index

Percentage of Women with a Prepregnancy Underweight Body Mass Index

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value**
Total Birth Population	**5.7% ± 0.8%**	**5,842**	
Maternal Age			<.0001
≤ 17	**13.6%** ± 6.5%	262	
18 - 19	10.3% ± 4.6%	522	
20 - 24	7.1% ± 1.9%	**1,905**	
25 - 29	5.1% ± 1.4%	1,894	
30 - 34	3.7% ± 1.5%	849	
35 - 39	4.8%* ± 3.0%	384*	
40 +	^ ^	^	
Education Level			<.0001
Less than High School	6.1% ± 1.8%	744	
Completed High School	**6.6%** ± 1.6%	**2,089**	
Some College	4.9% ± 1.7%	1,340	
College Graduate	4.8% ± 1.6%	1,453	
Race			NS
White	5.6% ± 0.9%	**5,454**	
Other than White	**7.3%*** ± 4.3%	374*	
Hispanic Ethnicity			<.01
Hispanic	5.4% ± 2.0%	773	
Non-Hispanic	**5.7%** ± 0.9%	**5,069**	
Marital Status			NS
Married	5.3% ± 0.9%	**4,477**	
Unmarried	**7.0%** ± 2.0%	1,366	
Birthweight			<.001
<2500 grams	**7.7%** ± 1.8%	470	
2500+ grams	5.6% ± 0.9%	**5,366**	

NS Not statistically signficant

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

** Normal BMI as referent group

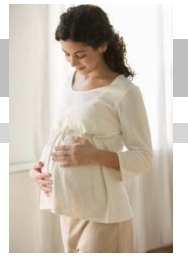
^ The estimate has been suppressed because the relative standard error is greater than 50% or the observe number of events is very small and not appropriate for publication.

Body Mass Index (BMI) is calculated using a woman's height and prepregnancy weight in the following formula: (weight in pounds/height in inches^2) x 703.

Women with an underweight BMI (less than 18.5) are at increased risk for preterm birth and small for gestational age infants. A significantly higher proportion of women who delivered a low birthweight infant had an underweight prepregnancy BMI.

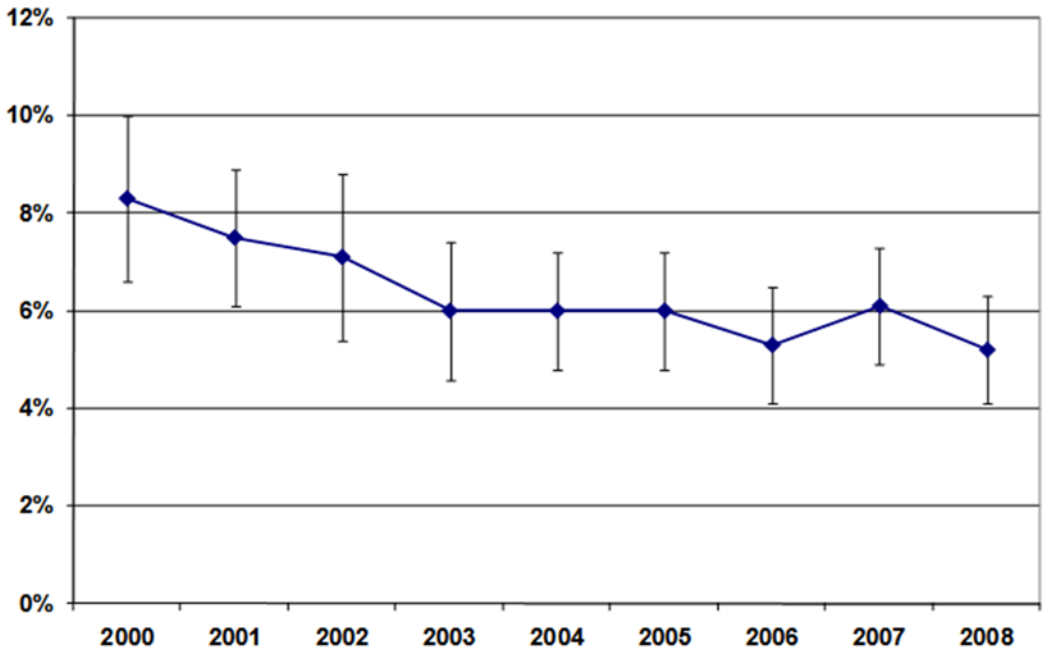
Women aged 19 years or younger or unmarried women were more likely to be underweight prior to conception.

Prepregnancy Underweight Body Mass Index



Trend data show a decrease in percentage of women with underweight prepregnancy BMI from 2000–2003. The rate remained relatively stable from 2004–2008.

Percentage of Women with a Prepregnancy Underweight Body Mass Index, 2000-2008



Prepregnancy Obese Body Mass Index

Percentage of Women with a Prepregnancy Obese Body Mass Index

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value**
Total Birth Population	**14.9% ± 1.3%**	**15,434**	
Maternal Age			<.0001
≤ 17	12.3% ± 7.1%	237	
18 - 19	13.8% ± 5.6%	702	
20 - 24	11.7% ± 2.2%	3,131	
25 - 29	14.9% ± 2.2%	**5,552**	
30 - 34	16.6% ± 3.0%	3,784	
35 - 39	**19.3%** ± 5.3%	1,536	
40 +	27.7% ± 12.9%	492	
Education Level			<.0001
Less than High School	20.1% ± 3.1%	2,442	
Completed High School	**18.7%** ± 2.5%	**5,880**	
Some College	15.6% ± 2.9%	4,275	
College Graduate	8.4% ± 2.1%	2,548	
Race			NS
White	14.5% ± 1.3%	**14,174**	
Other than White	**22.2%** ± 6.8%	1,136	
Hispanic Ethnicity			<.01
Hispanic	**17.3%** ± 3.4%	2,486	
Non-Hispanic	14.5% ± 1.4%	**12,841**	
Marital Status			NS
Married	14.6% ± 1.4%	**12,214**	
Unmarried	**16.6%** ± 3.1%	3,220	
Birthweight			<.001
<2500 grams	**19.2%** ± 2.7%	1,169	
2500+ grams	14.7% ± 1.4%	**14,258**	

** Normal BMI as referent group

NS Not statistically signficant

The proportion of pregnant Utah women with a BMI of 30.0 or greater (obese) increased from 12.6% in 2000 to 14.5% in 2008.

There are many known health risks related to obesity during pregnancy. Obese pregnant women are at increased risk for birth defects, gestational diabetes, preeclampsia, eclampsia, cesarean section, macrosomia, instrumental delivery, fetal distress, stillbirth, and early neonatal death. Obese pregnant women are also more likely to have longer labors and are more likely to have their labors induced or augmented. In addition, women who were obese prior to pregnancy report higher rates of postpartum depression. Breastfeeding rates are lower in obese women, and their offspring are at a higher risk for being obese in adulthood.[1]

1. Utah Department of Health, Physical Activity, Nutrition, & Obesity Program. Retrieved from: http://health.utah.gov/obesity/pages/Obesity/Related_Conditions.php

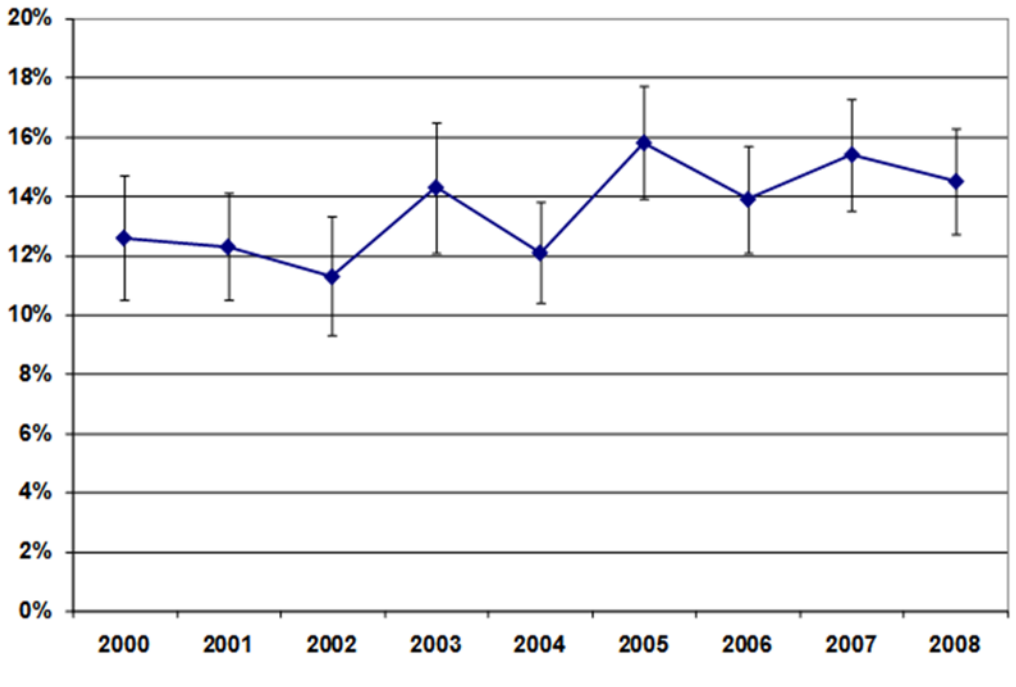
Prepregnancy Obese Body Mass Index

A woman's BMI prior to pregnancy is the strongest predictor for achieving appropriate pregnancy weight gain. Women who are either underweight or overweight before getting pregnant are less likely than women of normal weight to report a pregnancy weight gain within the recommended guidelines.[1] Among obese women, 70% gained excessive weight during pregnancy.[2] Moreover, high maternal weight gain can lead to a woman entering her next pregnancy at a higher BMI and can lead to long-term weight retention.[3]

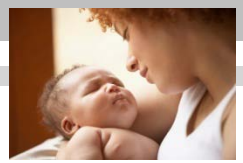
1. ACOG: Pregnancy Weight Gain Guidelines are not Being Followed, News Release, 2005.
2. Utah Vital Records
3. National Research Council and Institute of Medicine: Influence of Pregnancy Weight on Maternal and Child Health. Workshop Report. The National Academies Press, Washington, DC, 2007.

"This last pregnancy was my best out of five pregnancies, and I think a lot of it was because I was in the best shape of my life before I got pregnant. I was not always a healthy weight and that made a huge difference."
~A PRAMS Mom

Percentage of Women with a Prepregnancy Obese Body Mass Index, 2000-2008



Infertility Treatment



Percentage of Women Who Received Treatment to Help Get Pregnant

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**5.2% ± 0.8%**	**5,640**	
Maternal Age			<.0001
≤ 17	^	^	
18 - 19	^	^	
20 - 24	3.5% ± 1.3%	972	
25 - 29	6.4% ± 1.5%	**2,492**	
30 - 34	5.7% ± 1.8%	1,367	
35 - 39	**7.8%** ± 3.7%	656	
40 +	^	^	
Education Level			<.0001
Less than High School	2.3% ± 1.0%	343	
Completed High School	3.2% ± 1.1%	1,042	
Some College	6.6% ± 1.9%	1,842	
College Graduate	**7.2%** ± 1.8%	**2,215**	
Race			NS
White	**5.3%** ± 0.8%	**5,395**	
Other than White	3.5%* ± 3.0%	189*	
Hispanic Ethnicity			<.001
Hispanic	2.6% ± 1.2%	474	
Non-Hispanic	**5.7%** ± 0.9%	**5,146**	
Marital Status			<.0001
Married	**6.2%** ± 1.0%	**5,362**	
Unmarried	1.3%* ± 0.8%	278*	
Birthweight			<.0001
<2500 grams	**10.3%** ± 1.9%	660	
2500+ grams	4.9% ± 0.8%	**4,979**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Infertility is commonly defined as 12 months or longer of frequent sexual intercourse without any contraception and without achieving a pregnancy. Many practitioners decrease the time to achieving pregnancy to six months for women 35 years of age or older.

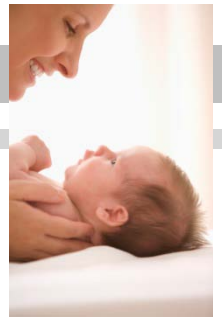
Women may choose to receive assistance to become pregnant if they have been unable to achieve pregnancy through frequent intercourse alone. Treatments may include medications to increase the potential of pregnancy through intercourse, artificial insemination, and/or in-vitro fertilization.

Women who report using infertility treatments are more likely to be 35 or older, college graduates, white, non-Hispanic, or married.

Infertility Treatment Type

Of the women who received treatment to become pregnant, 53.4% reported the use of fertility enhancing drugs such as Clomid, 12.2% reported using artificial insemination, 13.8% used assisted reproductive technology such as in vitro fertilization, and 20.2% reported using some other medical treatment.

Treatment Type Among Women Who Reported Receiving Help to Get Pregnant, 2007-2008



Unintended Pregnancy

Percentage of Women Who Reported Their Pregnancy Was Unintended

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**31.9% ± 1.7%**	**34,319**	
Maternal Age			<.0001
≤ 17	**76.6%** ± 8.1%	1,527	
18 - 19	64.7% ± 7.0%	3,524	
20 - 24	39.5% ± 3.5%	**10,984**	
25 - 29	25.0% ± 2.7%	9,613	
30 - 34	25.8% ± 3.4%	6,116	
35 - 39	27.3% ± 5.9%	2,275	
40 +	16.2%* ± 9.8%	281*	
Education Level			<.0001
Less than High School	**49.7%** ± 3.4%	7,384	
Completed High School	40.0% ± 3.2%	**12,787**	
Some College	28.8% ± 3.6%	8,061	
College Graduate	17.6% ± 2.9%	5,359	
Race			<.0001
White	30.7% ± 1.7%	**31,093**	
Other than White	**50.7%** ± 8.1%	2,705	
Hispanic Ethnicity			<.0001
Hispanic	**41.3%** ± 4.0%	7,282	
Non-Hispanic	29.9% ± 1.8%	**26,721**	
Marital Status			<.0001
Married	25.1% ± 1.8%	**21,653**	
Unmarried	**60.2%** ± 3.8%	12,667	
Birthweight			NS
<2500 grams	**34.4%** ± 3.2%	2,168	
2500+ grams	31.8% ± 1.7%	**32,152**	

NS Not statistically significant

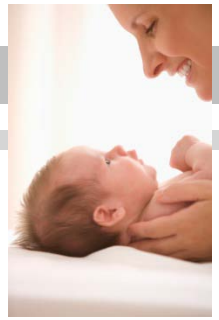
* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Unintended pregnancy includes births that women reported as wanting later or not at any time in the future. This is a conservative estimate of all unintended pregnancies as this report includes only live births that resulted from an unintended pregnancy; the rate of unintended pregnancies would be higher if miscarriages, abortions, and stillbirths were included.

Utah PRAMS data show that women with an unintended pregnancy were significantly more likely to smoke during their last trimester of pregnancy and were significantly less likely to breastfeed their infants. They were also significantly more likely to have an inpatient hospital stay, to have their infants admitted to the NICU, and to report postpartum depression symptoms.

Unintended pregnancy remains a prevalent public health problem. The Healthy People 2010 goal was 70% of pregnancies to be intended. Overall, Utah comes close to meeting this goal with 68.1% of live births resulting from intended pregnancy. However, some populations—including women younger than 20 years of age, low education, other than white race, Hispanic ethnicity, and unmarried—experience a much higher percentage of unintended pregnancies when compared to Utah's overall rate of 31.9%.

Unintended Pregnancy

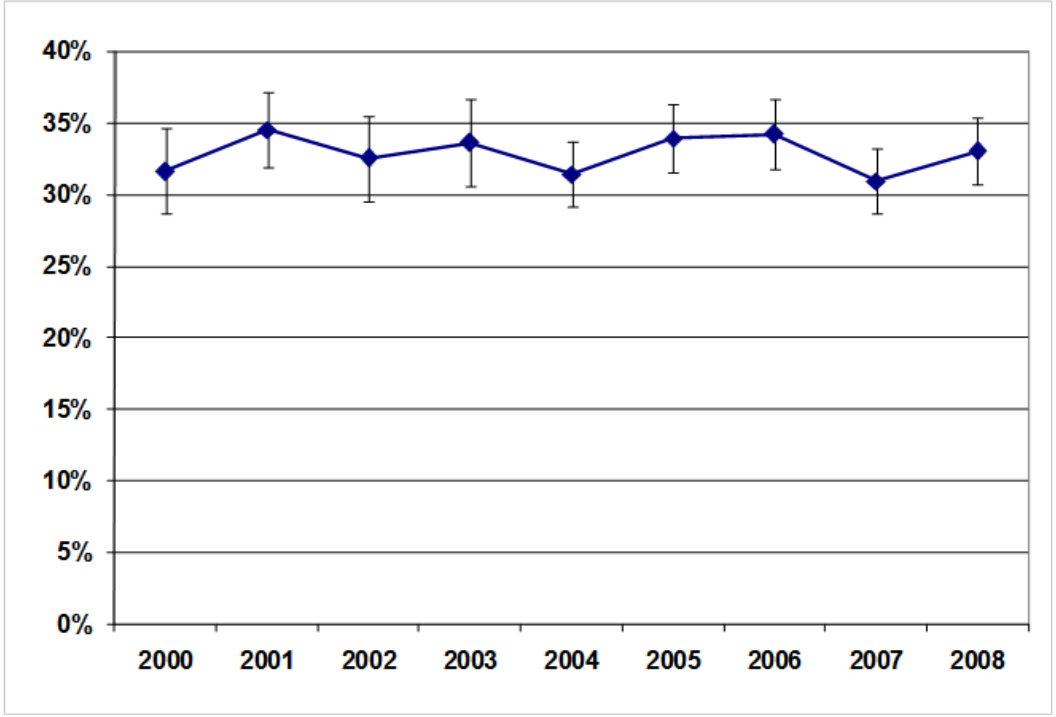


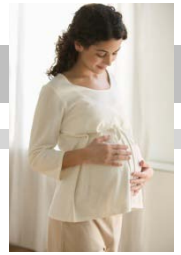
The average woman spends the majority of her reproductive life trying to avoid pregnancy.[1] In Utah, close to one-third of live births were unintended. Unintended pregnancy is associated with poorer health outcomes and increased public health care costs.

In 2006, the public cost for births that resulted from unintended pregnancies was estimated at $94.7 million dollars in Utah, or $10,450 per birth.[2]

1. The Alan Guttmacher Institute (AGI), *Fulfilling the Promise: Public Policy and U.S. Family Planning Clinics*, New York: AGI, 2000
2. Sonfield A, Kost K, Gold R, & Finer L. The public costs of births resulting from unintended pregnancies: national and state-level estimates. Perspectives on Sexual and Reproductive Health. 2011; 43 (2) 94-102.

Percentage of Women Who Reported Their Pregnancy Was Unintended, 2000–2008





Birth Control Use Among Women With Unintended Pregnancies

Survey Question 14

Percentage of Women with an Unintended Pregnancy Who Reported Not Using Birth Control at Conception

Total Birth Population	**41.2%**	**± 3.3%**	**12,737**	
Maternal Age				<.01
≤ 17	48.6%	± 11.4%	702	
18 - 19	**51.1%**	± 9.4%	1,665	
20 - 24	46.1%	± 5.8%	**4,646**	
25 - 29	34.8%	± 6.2%	2,947	
30 - 34	39.7%	± 8.2%	2,096	
35 - 39	26.7%	± 11.2%	572	
40 +	^		^	
Education Level				<.01
Less than High School	44.8%	± 5.1%	2,997	
Completed High School	**47.4%**	± 5.4%	**5,628**	
Some College	31.8%	± 7.3%	2,276	
College Graduate	34.1%	± 9.3%	1,550	
Race				NS
White	40.9%	± 3.4%	**11,536**	
Other than White	**43.1%**	± 12.0%	971	
Hispanic Ethnicity				NS
Hispanic	**45.0%**	± 6.5%	2,933	
Non-Hispanic	40.3%	± 3.8%	**9,720**	
Marital Status				<.001
Married	36.5%	± 4.2%	**6,914**	
Unmarried	**48.6%**	± 5.2%	5,823	
Birthweight				NS
<2500 grams	**46.7%**	± 6.1%	911	
2500+ grams	40.8%	± 3.5%	**11,826**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

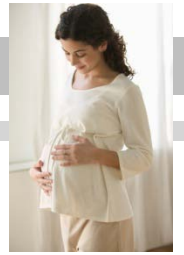
Of all women giving birth who had an unintended pregnancy, 58.8% reported using a birth control method at the time of conception, which could indicate inconsistent or incorrect use or contraceptive failure.

Additionally, 41.2% of women who had an unintended pregnancy reported that they were not using any birth control method or doing anything to prevent pregnancy when they conceived.

Women who reported not using contraception at the time of their unintended pregnancy were significantly more likely to have a lower level of education, be unmarried, and younger than 20 years of age.

Survey Question 15

Reasons For No Birth Control Among Unintended Pregnancies

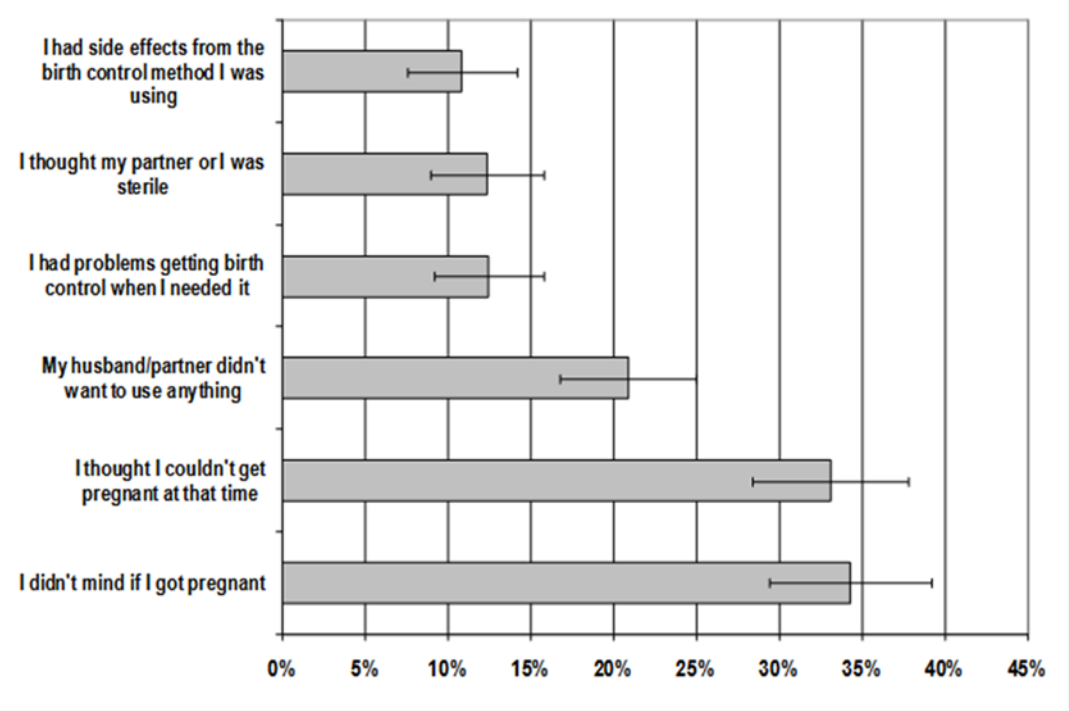


The most commonly cited reason for not using any method to prevent pregnancy was that the woman didn't mind if she became pregnant, which may indicate ambivalence in pregnancy intention rather than a truly unintended pregnancy.

The second most commonly cited reason for not using birth control at the time of conception among women who reported an unintended pregnancy was "I thought I couldn't get pregnant at that time." This indicates some women may lack knowledge regarding their fertility cycles.

"I live in Vernal and there is no family planning at all. It is almost impossible to get affordable birth control if you don't have insurance."
~A PRAMS Mom

Reasons for Not Using Birth Control at Time of Conception Among Women With an Unintended Pregnancy, 2007–2008



Physical Abuse Before Pregnancy

Percentage of Women Who Reported Physical Abuse by a Current or Former Husband/Partner Before Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**3.8% ± 0.7%**	**4,121**	
Maternal Age			<.0001
≤ 17	5.0%* ± 4.4%	100*	
18 - 19	**11.6%** ± 4.7%	617	
20 - 24	6.4% ± 1.7%	**1,763**	
25 - 29	2.3% ± 0.9%	879	
30 - 34	2.2% ± 1.1%	516	
35 - 39	2.2%* + 2.0%	185*	
40 +	^	^	
Education Level			<.0001
Less than High School	**9.6%** ± 2.0%	1,408	
Completed High School	5.0% ± 1.5%	**1,598**	
Some College	1.9% ± 1.1%	536	
College Graduate	1.4%* ± 1.0%	439*	
Race			NS
White	3.6% ± 0.7%	**3,655**	
Other than White	**6.3%*** ± 3.9%	330*	
Hispanic Ethnicity			<.01
Hispanic	**6.3%** ± 1.8%	1,108	
Non-Hispanic	3.3% ± 0.7%	**2,937**	
Marital Status			<.0001
Married	1.6% ± 0.5%	1,392	
Unmarried	**13.1%** ± 2.6%	**2,728**	
Birthweight			NS
<2500 grams	**4.8%** ± 1.5%	302	
2500+ grams	3.8% ± 0.6%	**3,819**	

NS Not statistically significant

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

In Utah, approximately 169,000 women experience intimate partner-related physical assaults and rapes each year.[1] Data from the Utah Behavioral Risk Factor Surveillance System (BRFSS) indicate that in 2008, 14.2% of Utah women (ages 18 and older) reported that an intimate partner had *ever* hit, slapped, pushed, kicked, or hurt them in any way.[1] PRAMS data show that 3.8% of respondents reported physical abuse by a husband/partner prior to pregnancy. Women aged 24 and younger were more likely to report intimate partner violence (IPV) prior to pregnancy.

Intimate partner violence (IPV) is associated with negative health behaviors. Women who experienced IPV had a statistically higher prevalence of binge drinking (9.8% vs. 4.3%) and current everyday smoking (13.4% vs. 4.4%) than did women without IPV experience, according to BRFSS data.[2]

In addition, victims of IPV reported a significantly higher prevalence of missing seven or more days of work/activities in the past month (11.9% vs. 2.9%), having seven or more poor mental health days in the past month (38.8% vs. 13.2%), and being treated for mental illness (29.8% vs. 13.7%) than non-victims.[2]

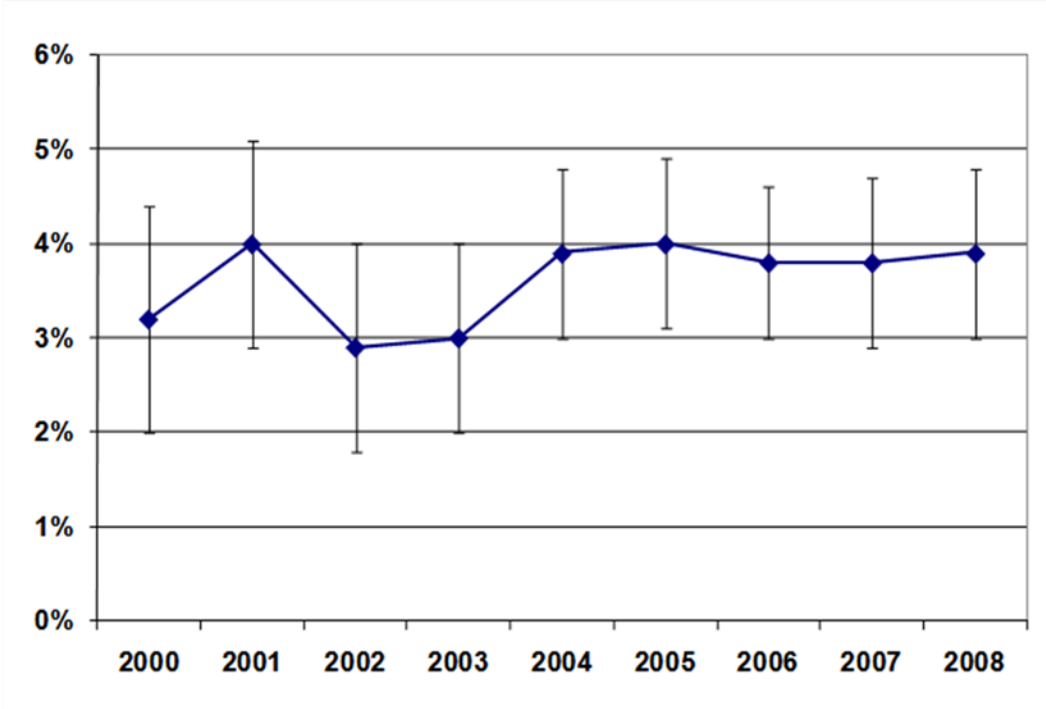
1. Utah Department of Health, Violence and Injury Prevention Program. Retrieved from: http://health.utah.gov/vipp/domesticViolence/overview.html
2. Utah Department of Health, Violence and Injury Prevention Program. Intimate Partner Violence in Utah, 2008 fact sheet Retrieved from: http://health.utah.gov/vipp/pdf/FactSheets/factSheet_2008IntimatePartnerViolence.pdf

Physical Abuse Before Pregnancy

The percentage of women reporting physical abuse before pregnancy remained stable from 2004 through 2008. Women who reported physical abuse in the 12 months prior to pregnancy were more likely to be younger than 20, other than white race, of Hispanic ethnicity, or unmarried.

In Utah, physical abuse that occurs during the perinatal time period is associated with delayed entry into prenatal care and more outpatient hospital visits for pregnancy-related morbidities.

Percentage of Women Reporting Abuse by a Current or Former Husband/Partner Before Pregnancy, 2000–2008



Insurance Before Pregnancy

Percentage of Women Who Had No Insurance Before Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**32.3% ± 1.5%**	**35,000**	
Maternal Age			<.0001
≤ 17	**60.8%** ± 9.3%	1,216	
18 - 19	52.9% ± 7.3%	2,897	
20 - 24	47.2% ± 3.5%	**13,199**	
25 - 29	25.2% ± 2.5%	9,823	
30 - 34	22.0% ± 3.1%	5,221	
35 - 39	24.4% ± 5.4%	2,062	
40 +	32.0% ± 13.0%	582	
Education Level			<.0001
Less than High School	**76.7%** ± 2.9%	11,553	
Completed High School	40.8% ± 3.2%	**13,244**	
Some College	23.3% ± 3.4%	6,514	
College Graduate	9.5% ± 2.2%	2,929	
Race			<.001
White	31.2% ± 1.6%	**31,825**	
Other than White	**48.4%** ± 8.0%	2,597	
Hispanic Ethnicity			<.0001
Hispanic	**72.0%** ± 3.9%	12,933	
Non-Hispanic	24.2% ± 1.7%	**21,758**	
Marital Status			<.0001
Married	22.9% ± 1.6%	**19,884**	
Unmarried	**70.7%** ± 3.6%	15,116	
Birthweight			<.05
<2500 grams	**36.1%** ± 2.9%	2,313	
2500+ grams	32.0% ± 1.6%	**32,661**	

Compared to 2004-2005, the percentage of women who were uninsured before pregnancy increased from 30.8% to 32.3%.

Women with no insurance before conception had significantly higher rates of unintended pregnancy and late entry into prenatal care than women with private insurance.

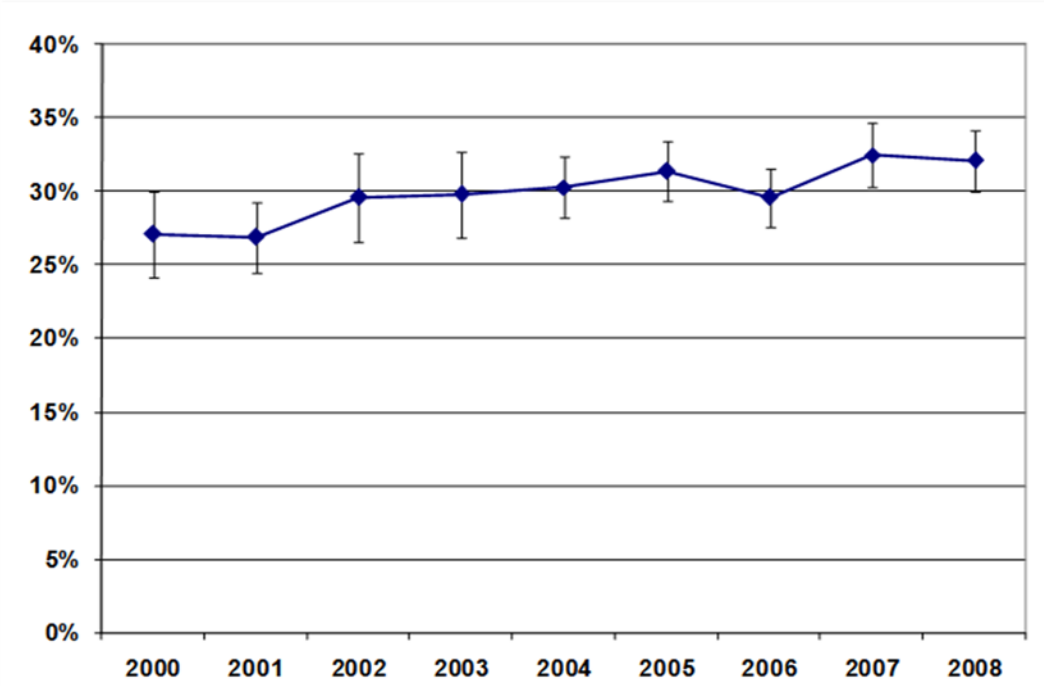
"I did have insurance but it didn't cover the baby or any prenatal."
~A PRAMS Mom

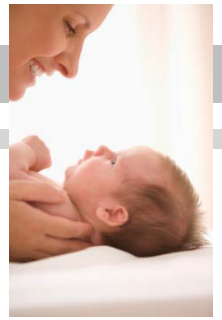
Insurance Before Pregnancy

The percentage of women who report no insurance coverage before pregnancy has increased since 2000. Improving women's access to preconception health care can improve birth outcomes and decrease health care costs related to poor pregnancy outcomes.

"There is a need to help people without health insurance that aren't poor enough for Medicaid. Just because the state thinks we can afford our health care doesn't mean we can."
~A PRAMS Mom

Percentage of Women With No Insurance Before Pregnancy, 2000–2008





Medicaid Before Pregnancy

Percentage of Women on Medicaid Before Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**5.2% ± 0.8%**	**5,629**	
Maternal Age			<.0001
≤ 17	**15.1%** ± 6.6%	301	
18 - 19	8.2% ± 3.7%	446	
20 - 24	7.3% ± 1.8%	**2,034**	
25 - 29	4.9% ± 1.3%	1,902	
30 - 34	3.4% ± 1.4%	816	
35 - 39	1.5%* ± 1.3%	130*	
40 +	0.0% + 0.0%	0	
Education Level			<.0001
Less than High School	**10.4%** ± 2.1%	1,564	
Completed High School	7.9% ± 1.8%	**2,564**	
Some College	3.7% ± 1.5%	1,030	
College Graduate	1.3%* ± 0.9%	409*	
Race			<.05
White	4.9% ± 0.8%	**5,013**	
Other than White	**10.7%** ± 4.8%	574	
Hispanic Ethnicity			NS
Hispanic	**6.2%** ± 1.9%	1,108	
Non-Hispanic	5.0% ± 0.8%	**4,479**	
Marital Status			<.0001
Married	2.8% ± 0.7%	2,466	
Unmarried	**14.8%** ± 2.7%	**3,164**	
Birthweight			<.01
<2500 grams	**8.1%** ± 1.9%	519	
2500+ grams	5.0% ± 0.8%	**5,104**	

NS Not statistically significant

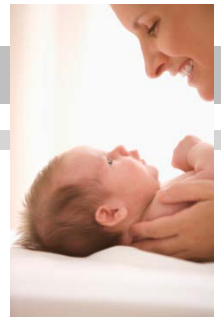
* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Utah has the lowest prepregnancy Medicaid rate in the country at 5.2%.[1] Women on Medicaid before pregnancy were significantly more likely to report their pregnancy was unintended.

Lack of Medicaid coverage prior to pregnancy appears to be an important risk factor for delayed or no prenatal care. Prenatal care is associated with improved maternal health, subsequent use of pediatric care, and serves as an entry point into the health care system for women at social or economic risk.[2]

1. Ahluwalia IB, Harrison L, D'Angelo D, Morrow B & PRAMS Team. Medicaid coverage before pregnancy: pregnancy risk assessment and monitoring system (PRAMS). *Journal of Women's Health,* 2009;*18* (4), 431-434
2. Rosenberg D, Handler A, Rankin K, Zimbeck M, Adams EK. Prenatal care initiation among very low-income women: does prepregnancy Medicaid coverage make a difference? *Maternal Child Health Journal,* 2006; 11:11-17.

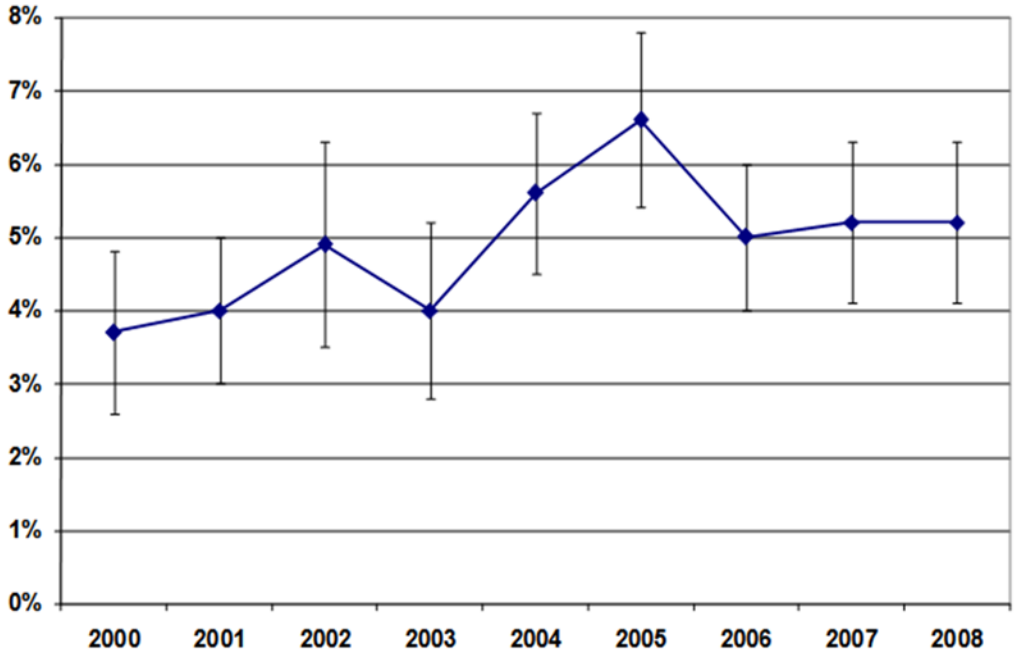
Medicaid Before Pregnancy

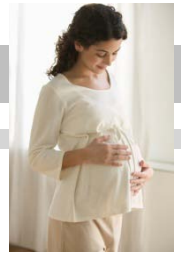


Overall, a relatively small percentage of Utah women qualify for Medicaid prior to pregnancy, and that rate has decreased since 2005.

"I couldn't afford prenatal care until I applied for Medicaid."
~A PRAMS Mom

Percentage of Women on Medicaid Before Pregnancy, 2000–2008





Preconception Visit with Health Care Provider

Survey Question 7

Percentage of Women Who Reported No Preconception Visit with a Health Care Provider

Characteristics	Percent (95% Confidence	Population Estimate	P-Value
Total Birth Population	**74.8% ± 1.6%**	**80,945**	
Maternal Age			<.0001
≤ 17	**90.7%** ± 5.5%	1,835	
18 - 19	88.0% ± 5.0%	4,811	
20 - 24	81.0% ± 2.8%	22,642	
25 - 29	71.6% ± 2.8%	**27,832**	
30 - 34	70.9% ± 3.6%	16,790	
35 - 39	67.1% ± 6.3%	5,665	
40 +	75.3% ± 12.2%	1,370	
Education Level			<.0001
Less than High School	**83.7%** ± 2.5%	12,617	
Completed High School	80.4% ± 2.5%	**26,029**	
Some College	73.4% ± 3.4%	20,542	
College Graduate	65.7% ± 3.5%	20,178	
Race			NS
White	74.5% ± 1.6%	**75,999**	
Other than White	**80.0%** ± 6.5%	4,207	
Hispanic Ethnicity			<.0001
Hispanic	**83.6%** ± 2.9%	14,964	
Non-Hispanic	73.0% ± 1.8%	**65,507**	
Marital Status			<.0001
Married	71.5% ± 1.9%	**62,163**	
Unmarried	**88.0%** ± 2.4%	18,782	
Birthweight			<0.05
<2500 grams	70.9% ± 2.9%	4,536	
2500+ grams	**75.0%** ± 1.7%	**76,364**	

NS Not statistically significant

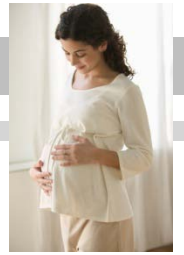
Good health before becoming pregnant is an important contributor to a healthy pregnancy and baby. A preconception visit allows women and their health care providers to manage chronic health conditions, address potential risks for poor pregnancy outcomes, and modify unhealthy behaviors.[1]

Since critical fetal development occurs before a woman is aware of her pregnancy, significant fetal outcomes are determined prior to the woman's initial prenatal visit. Women can prepare for pregnancy and reduce risks for poor pregnancy outcomes.

Nearly 75% of women report no preconception visit with a health care provider. Women who did obtain a preconception visit were significantly more likely to report taking a daily multivitamin, to not smoke prior to pregnancy, and to receive first trimester prenatal care compared to women with no preconception visit.[2]

1. Department of Health and Human Services, Centers for Disease Control and Prevention. Recommendations to improve preconception health and health care—United States. *MMWR*. April 21, 2006 / 55(RR-06);1-23.
2. Utah Department of Health, Maternal and Infant Health Program. Preconception health and health care among Utah women. *Prams Perspectives* 2009.

Preconception Visit with Health Care Provider

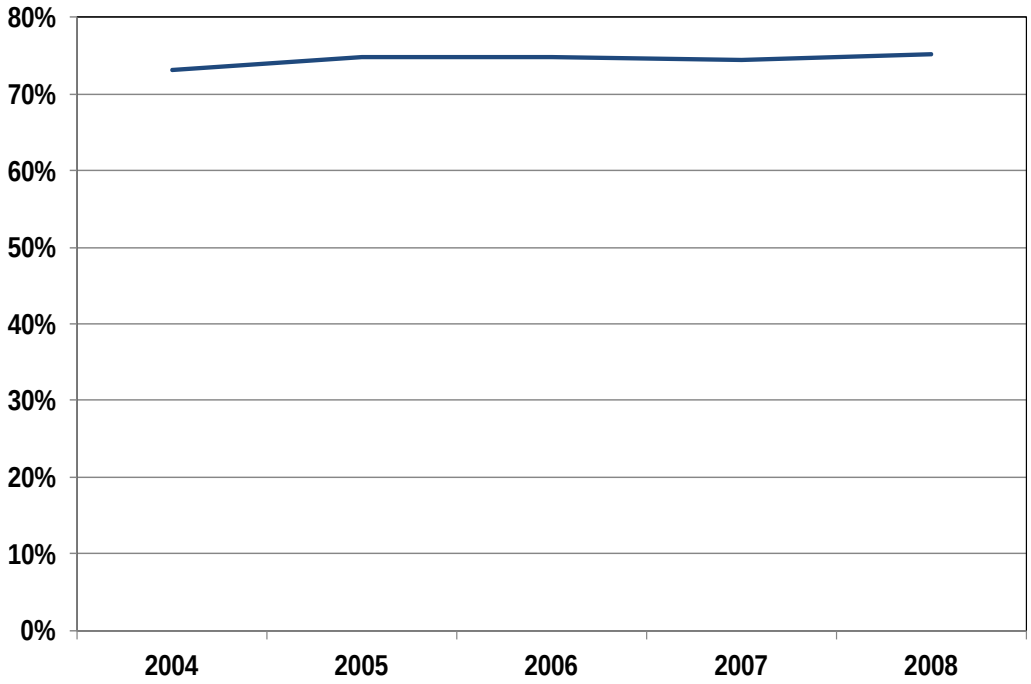


The percentage of women with no preconception visit remained relatively stable from 2004-2008.

Women younger than 20 years of age, with less than high school education, other than white race, of Hispanic ethnicity, or unmarried reported higher rates of no preconception visit.

"Both of my sons were born 10 weeks early with no known cause. I'd be willing to do anything to prevent this from happening to someone else."
~A PRAMS Mom

Percentage of Women With No Preconception Visit 2004-2008



Teeth Cleaning by a Dental Professional

Percentage of Women Who Never Had their Teeth Cleaned by a Dental Professional

Characteristics	Percent (95% Confidence		Population Estimate	P-Value
Total Birth Population	**7.3%**	**± 0.8%**	**7,782**	
Maternal Age				<.0001
≤ 17	**15.0%**	± 6.7%	297	
18 - 19	14.9%	± 5.1%	793	
20 - 24	9.3%	± 1.8%	**2,555**	
25 - 29	6.2%	± 1.3%	2,401	
30 - 34	5.5%	± 1.5%	1,302	
35 - 39	4.9%	± 2.2%	414	
40 +	^	^	^	
Education Level				<.0001
Less than High School	**30.1%**	± 3.2%	**4,370**	
Completed High School	6.1%	± 1.6%	1,948	
Some College	2.9%	± 1.4%	798	
College Graduate	1.3%*	± 0.9%	392*	
Race				<.0001
White	6.5%	± 0.8%	**6,546**	
Other than White	**20.7%**	± 6.4%	1,075	
Hispanic Ethnicity				<.0001
Hispanic	**30.2%**	± 3.5%	**5,252**	
Non-Hispanic	2.8%	± 0.6%	2,492	
Marital Status				<.0001
Married	4.5%	± 0.7%	**3,895**	
Unmarried	**18.7%**	± 2.8%	3,887	
Birthweight				NS
<2500 grams	**8.7%**	± 1.9%	544	
2500+ grams	7.2%	± 0.8%	**7,231**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Maternal oral health has significant implications for birth outcomes and infant oral health. Maternal periodontal disease, a chronic infection of the gingiva and supporting tooth structures, has been associated with preeclampsia, preterm birth, and delivery of a small-for-gestational-age infant. Maternal oral bacteria are transmitted to the newborn infant, and these increased decay-causing bacteria in the mother predispose the infant to the development of cavities.[1]

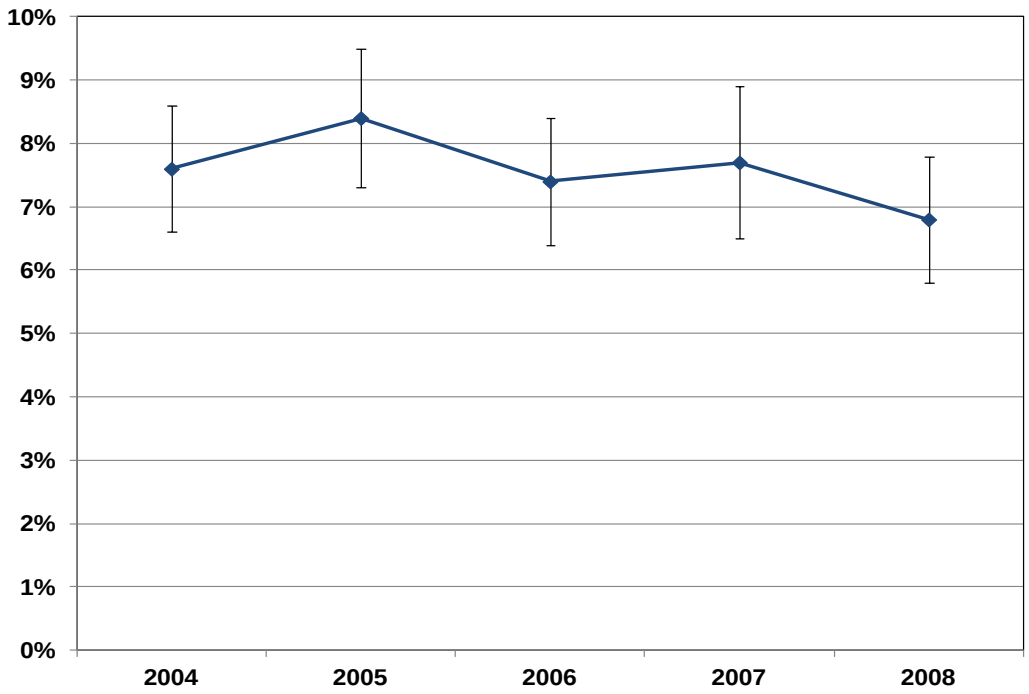
All perinatal health care professionals should educate pregnant women on the importance of good oral health, the safety of oral health care during pregnancy, and identify and refer women who are in need of dental care for treatment.[2]

1. Boggess KA, Edelstein BL. Oral health in women during preconception and pregnancy: implications for birth outcomes and infant oral health. *Matern Child Health J.* 2006 Sep;10(5 Suppl):S169-74.
2. Dasanayake AP, Gennaro S, Hendricks-Muñoz KD, Chhun N. Maternal periodontal disease, pregnancy, and neonatal outcomes. *MCN Am J Matern Child Nurs.* 2008; 33(1):45-9.

Teeth Cleaning by a Dental Professional

While 7.3% of women report never having a professional dental cleaning, the percentage is much higher in women who are younger than 20, women with less than a high school education, and women of Hispanic ethnicity.

Percentage of Women Who Never Had Teeth Cleaned by Dental Professional, 2004–2008



Late or No Entry into Prenatal Care

Percentage of Women Who Received Prenatal Care After the First Trimester or Not at All

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**19.7% ± 1.4%**	**21,089**	
Maternal Age			<.0001
≤ 17	**38.9%** ± 9.7%	727	
18 - 19	37.0% ± 7.1%	1,961	
20 - 24	21.5% ± 2.9%	5,924	
25 - 29	17.5% ± 2.3%	**6,707**	
30 - 34	15.6% ± 2.9%	3,670	
35 - 39	19.8% ± 5.1%	1,653	
40 +	24.7% ± 12.5%	447	
Education Level			<.0001
Less than High School	**37.9%** ± 3.4%	5,518	
Completed High School	22.6% ± 2.7%	**7,174**	
Some College	15.5% ± 2.9%	4,324	
College Graduate	11.4% ± 2.4%	3,507	
Race			<.001
White	18.9% ± 1.4%	**19,073**	
Other than White	**34.1%** ± 7.5%	1,776	
Hispanic Ethnicity			<.0001
Hispanic	**33.3%** ± 3.8%	5,746	
Non-Hispanic	17.0% ± 1.5%	**15,187**	
Marital Status			<.0001
Married	15.8% ± 1.5%	**13,602**	
Unmarried	**36.1%** ± 3.7%	7,487	
Birthweight			NS
<2500 grams	**20.3%** ± 2.7%	1,267	
2500+ grams	19.7% ± 1.5%	**19,815**	

NS Not statistically significant

A woman's first prenatal visit enables her health care provider to assess risks early in the pregnancy and reduce those risks when possible. Prenatal care also provides a unique opportunity for a pregnant woman to receive a variety of valuable health messages. Counseling from health care providers about the use of folic acid, abstinence from alcohol, and tobacco cessation tools—among other messages—have maximal effectiveness if implemented early in pregnancy. Delayed prenatal care reduces the potential effectiveness of these messages.[1]

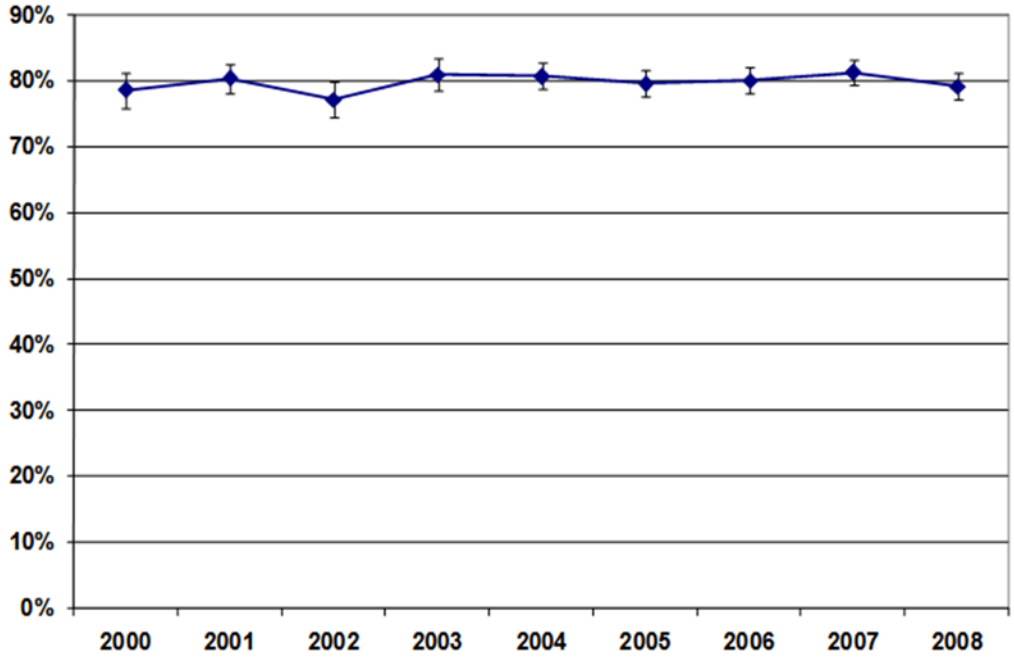
Women younger than 20 years of age, with less than a high school education, other than white race, of Hispanic ethnicity, or unmarried had significantly higher than average rates of late entry or no prenatal care.

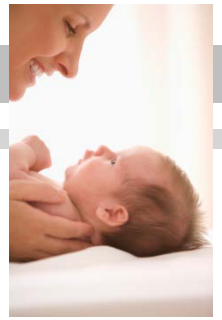
1. Nettleman MD, Brewer J, Stafford M. Scheduling the first prenatal visit: office-based delays. Am J of Obstet & Gynecol 2010; 203-207. E1-3.

Late or No Entry into Prenatal Care

The Healthy People 2010 objective was to increase early and adequate prenatal care to 90% beginning in the first trimester. Utah found that 80.3% of women receive prenatal care in the first trimester. These trend data show very little change in the proportion of pregnant women who received prenatal care in the first trimester between 2000 and 2008.

Percentage of Women Who Received Prenatal Care in the First Trimester, 2000–2008





Prenatal Care as Early as Desired Among Late or No Entry

Survey Question 22

Percentage of Women with Late or No Prenatal Care Who Did Not Get Care as Early as Desired

	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**40.0% ± 3.9%**	**8,260**	
Maternal Age			<.01
≤ 17	61.8% ± 16.7%	423	
18 - 19	43.5% ± 11.8%	852	
20 - 24	49.6% ± 7.5%	**2,893**	
25 - 29	34.4% ± 7.0%	2,243	
30 - 34	30.8% ± 8.9%	1,114	
35 - 39	32.1% ± 13.5%	513	
40 +	^	^	
Education Level			<.05
Less than High School	**47.1%** ± 5.9%	2,529	
Completed High School	42.9% ± 6.9%	**3,001**	
Some College	36.5% ± 10.0%	1,539	
College Graduate	28.9% ± 10.2%	1,012	
Race			<.01
White	37.9% ± 4.1%	**7,109**	
Other than White	**62.8%** ± 13.1%	1,063	
Hispanic Ethnicity			NS
Hispanic	**41.2%** ± 7.0%	2,276	
Non-Hispanic	39.6% ± 4.7%	**5,937**	
Marital Status			<.001
Married	34.1% ± 4.9%	**4,573**	
Unmarried	**50.8%** ± 6.4%	3,687	
Birthweight			<.0001
<2500 grams	**60.0%** ± 7.6%	751	
2500+ grams	38.7% ± 4.1%	**7,509**	

NS Not statistically significant

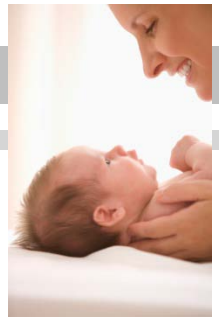
^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

Access to health care remains a significant public health concern for pregnant women. Healthy People 2010 calls for 90% of pregnant women to receive prenatal care within the first trimester of pregnancy.

Younger women, those with a high school education or less, and women of other than white race were more likely to report not getting prenatal care as early as desired. Women who delivered a low birthweight infant were significantly more likely to report not getting care as early as desired.

Survey Question 23

Reasons For Not Getting Prenatal Care as Early as Desired

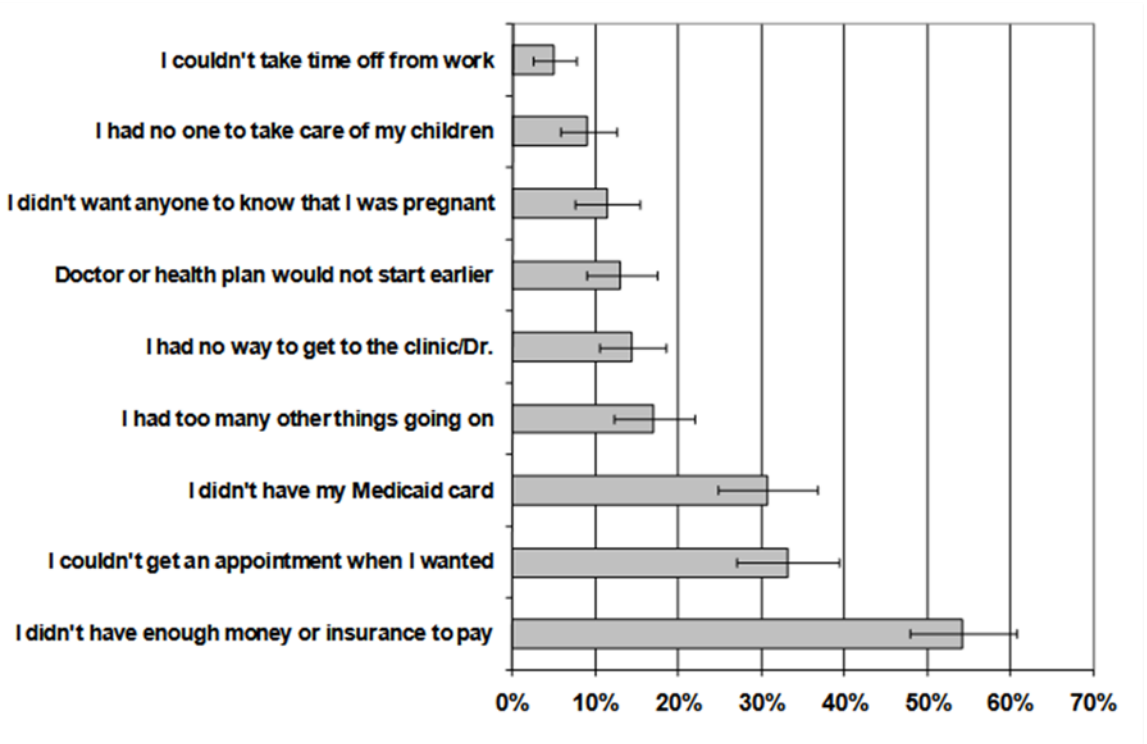


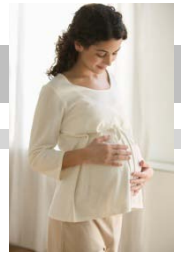
Among women who received late or no prenatal care and said they did not get prenatal care as early as they wanted, the most commonly cited reason was lack of money or insurance to pay for care. This reason was cited by 54.2% of these women, up from 43.8% in 2004-2005.

Difficulty getting an appointment was the second most common reason cited for not receiving prenatal care as early as desired. A recent study demonstrated that "office-based delays in scheduling a prenatal visit occur in a substantial proportion of cases" of late entry into prenatal care and that many clinics recommend a first prenatal appointment at greater than eight weeks gestation.[1] By this time all major organs have formed and much of the benefit of prenatal counseling is diminished. Obstetric practices may want to reconsider their protocols regarding early prenatal care appointments.

1. Nettleman MD, Brewer J, Stafford M. Scheduling the first prenatal visit: office-based delays. Am J of Obstet & Gynecol 2010; 203-207. E1-3.

Among Women Who Received Late or No Prenatal Care, Reasons Women Did Not Get Prenatal Care as Early as Desired, 2007–2008





Physical Abuse Discussion With Health Care Provider

Survey Question 29b

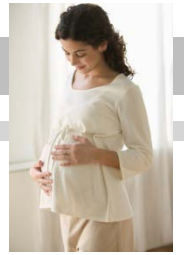
Percentage of Women Who Reported Their Health Care Provider Did Not Ask if Someone Was Hurting Them Emotionally or Physically

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**68.0% ± 1.7%**	**72,081**	
Maternal Age			<.001
≤ 17	58.8% ± 9.7%	1,084	
18 - 19	57.7% ± 7.4%	3,051	
20 - 24	66.3% ± 3.4%	18,142	
25 - 29	66.8% ± 2.9%	**25,387**	
30 - 34	**73.1%** ± 3.5%	17,023	
35 - 39	72.8% ± 5.8%	6,108	
40 +	71.7% ± 12.6%	1,286	
Education Level			<.0001
Less than High School	53.4% ± 3.5%	7,594	
Completed High School	67.2% ± 3.1%	21,301	
Some College	69.5% ± 3.7%	19,187	
College Graduate	**74.6%** ± 3.3%	**22,689**	
Race			<.05
White	**68.5%** ± 1.7%	**68,502**	
Other than White	59.8% ± 8.1%	2,995	
Hispanic Ethnicity			<.0001
Hispanic	56.6% ± 4.1%	9,717	
Non-Hispanic	**70.2%** ± 1.9%	**61,966**	
Marital Status			<.0001
Married	**71.0%** ± 1.9%	**60,755**	
Unmarried	55.6% ± 3.9%	11,326	
Birthweight			<.001
<2500 grams	60.8% ± 3.3%	3,794	
2500+ grams	**68.5%** ± 1.8%	**68,253**	

Sixty-eight percent of Utah women indicated they were not screened for physical or emotional abuse during their prenatal care. Since 2000, trend data show that the percentage of women reporting a health care worker asked them about abuse has gradually increased.

Among women who reported emotional or physical abuse during pregnancy, 44.7% said that at some point during their prenatal care their provider asked if someone was hurting them emotionally or physically. This percentage is up from 34% in 2004-2005, an encouraging increase.

Physical Abuse Discussion With Health Care Provider



Because most women seek some prenatal care, pregnancy offers a unique opportunity for providers to screen for domestic violence. Clinicians can serve as advocates for change in a woman's life by offering information and support. Screening itself may function as a key intervention that can prompt a woman to begin improving her physical and psychological environment.

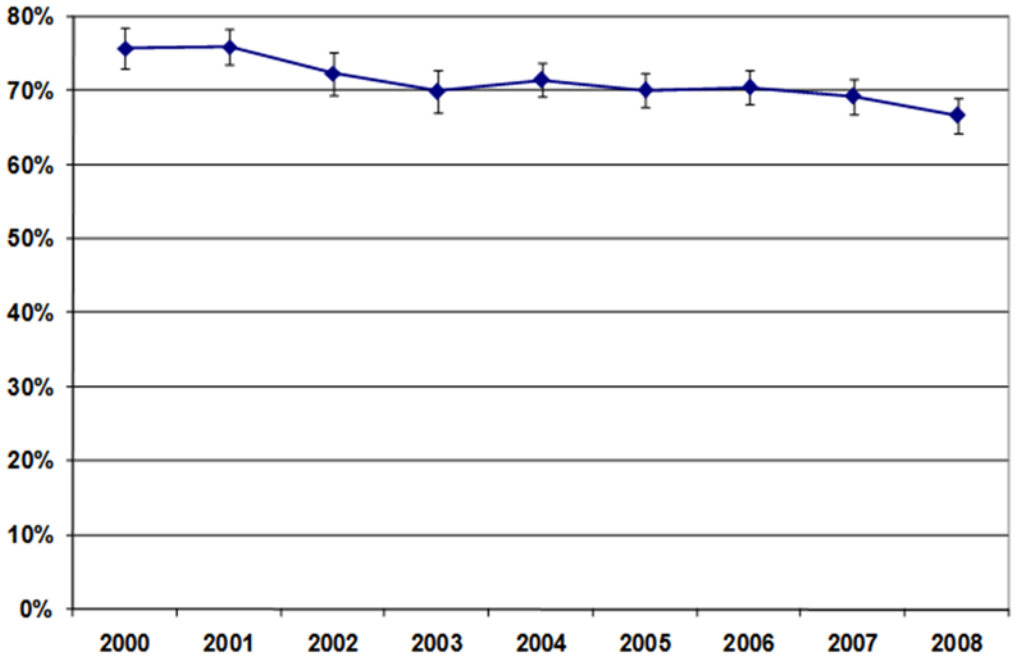
ACOG recommends that providers screen pregnant women at various times over the course of a pregnancy because some women do not disclose abuse the first time they are asked and abuse may begin later in pregnancy.

Screening should occur:

- at the first prenatal visit
- at least once per trimester, and
- at the postpartum checkup. [1]

The Utah Department of Health Violence and Injury Prevention Program and Utah Domestic Violence Council Health Care Committee have developed training tools that can assist health care providers in training their staff on responding to domestic violence. These are available at http://health.utah.gov/vipp/domesticViolence/training.html

Percentage of Women Who Reported Their Health Care Provider Did Not Ask if Someone Was Hurting Them Emotionally or Physically 2000–2008



1. ACOG Screening Tools-Domestic Violence. Retrieved from: http://www.acog.org/departments/dept_notice.cfm?recno=17&bulletin=585
2. UDOH Violence and Injury Prevention Program Retrieved from: http://health.utah.gov/vipp/domesticViolence/training.html

HIV Discussion With Health Care Provider

Survey Question 29d

Percentage of Women Who Reported Their Health Care Provider Did Not Ask if They Wanted to Be Tested for HIV

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**52.0% +1.8%**	**54,819**	
Maternal Age			<.0001
≤ 17	36.1% ± 9.8%	642	
18 - 19	35.0% ± 7.0%	1,852	
20 - 24	47.3% ± 3.6%	12,864	
25 - 29	54.0% ± 3.1%	**20,427**	
30 - 34	56.8% ± 4.0%	13,182	
35 - 39	56.0% ± 6.7%	4,641	
40 +	**68.6%** ± 12.9%	1,213	
Education Level			<.0001
Less than High School	35.0% ± 3.3%	4,961	
Completed High School	49.6% ± 3.3%	15,607	
Some College	54.8% ± 4.0%	15,026	
College Graduate	**60.7%** ± 3.7%	**18,449**	
Race			NS
White	**52.3%** ± 1.9%	**52,031**	
Other than White	49.7% ± 8.3%	2,499	
Hispanic Ethnicity			<.0001
Hispanic	41.2% ± 4.1%	7,024	
Non-Hispanic	**54.2%** ± 2.1%	**47,625**	
Marital Status			<.0001
Married	**55.9%** ± 2.1%	**47,534**	
Unmarried	35.9% ± 3.8%	7,285	
Birthweight			<.01
<2500 grams	47.0% ± 3.3%	2,917	
2500+ grams	**52.3%** ± 1.9%	**51,869**	

NS Not statistically significant

The CDC recommends that HIV screening be included in the routine panel of prenatal screening tests for all pregnant women. Moreover, the CDC considers every perinatal HIV transmission as a sentinel health event, signaling either a missed opportunity for prevention or a failure of interventions to prevent perinatal transmission of the virus.[1]

Once a woman and her health care provider are aware of her HIV status, the risk of perinatal transmission can be reduced to 2% or less by giving antiretroviral drugs to the mother during pregnancy, labor, and delivery; administering treatment to the infant within hours of birth; and performing an elective cesarean delivery for women who have viral loads more than 1,000 copies per milliliter.[2,3]

1. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings. MMWR Recommendations and Reports. September 22, 2006 / 55(RR14);1-17.

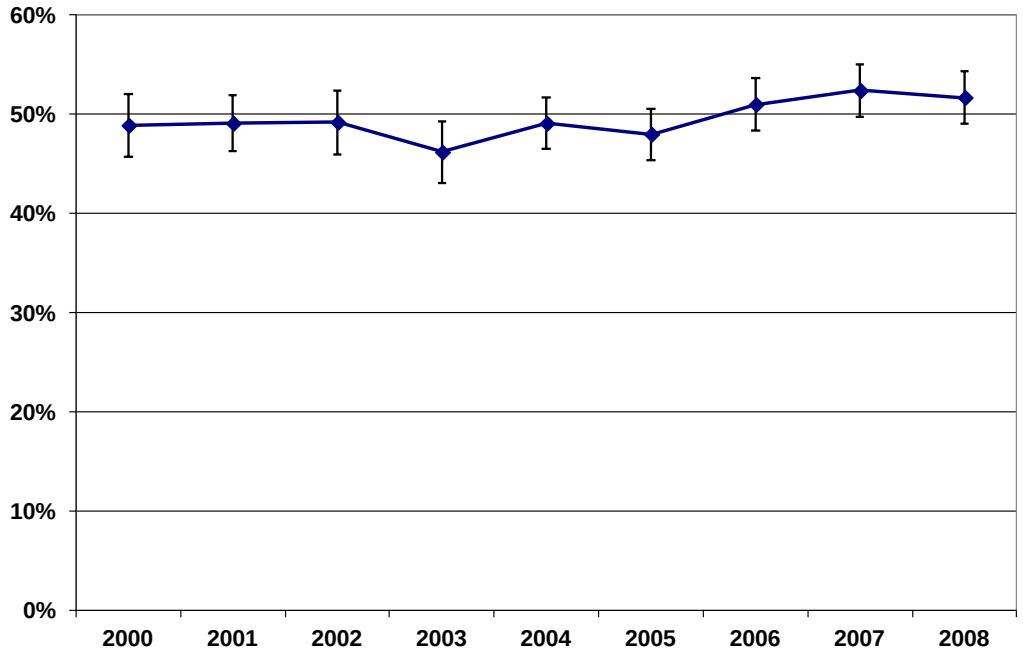
2. Cooper ER, Charurat M, Mofenson LM, et al. Combination antiretroviral strategies for the treatment of pregnant HIV-1-infected women and prevention of perinatal HIV-1 transmission. *Journal of Acquired Immune Deficiency Syndromes* 2002;29(5):484-494.).

3. UDOH PRAMS Perspectives, November 2009. Retrieved from: http://health.utah.gov/mihp/pdf/HIV_PRAMS.pdf

HIV Discussion With Health Care Provider

Approximately half of Utah women reported that their provider did not offer them HIV testing during their prenatal care despite the CDC recommendation for universal screening. Among the HIV positive childbearing women in one study, the vast majority (73%) received their initial diagnosis during pregnancy or at delivery, reinforcing the importance of prenatal HIV screening.[1]

Percentage of Women Who Reported Their Health Care Provider Did Not Ask if They Wanted to Be Tested for HIV 2000–2008



1. Thorne C, Semenenko I, Pilipenko T, Malyuta R, and the Ukraine European Collaborative Study Group. Progress in prevention of mother-to-child transmission of HIV infection in Ukraine: results from a birth cohort study. *BMC Infectious Diseases*;2009.

Seat Belt Use Discussion By Health Care Provider

Survey Question 26d

Percentage of Women Who Reported Their Health Care Provider Did Not Talk With Them About Seat Belt Use

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**58.4% ± 1.8%**	**61,735**	
Maternal Age			<.0001
≤ 17	44.4% ± 9.9%	819	
18 - 19	42.2% ± 7.2%	2,233	
20 - 24	54.7% ± 3.6%	14,927	
25 - 29	57.3% ± 3.1%	**21,758**	
30 - 34	66.3% ± 3.8%	15,460	
35 - 39	65.5% ± 6.3%	5,356	
40 +	**67.6%** ± 12.8%	1,181	
Education Level			<.0001
Less than High School	43.1% ± 3.5%	6,084	
Completed High School	57.0% ± 3.2%	18,048	
Some College	60.4% ± 3.7%	16,763	
College Graduate	**66.0%** ± 3.6%	**19,886**	
Race			<.05
White	**59.1%** ± 1.9%	**58,910**	
Other than White	49.0% ± 8.4%	2,439	
Hispanic Ethnicity			<.0001
Hispanic	44.1% ± 4.1%	7,531	
Non-Hispanic	**61.3%** ± 2.0%	**53,961**	
Marital Status			<.0001
Married	**60.6%** ± 2.0%	**51,651**	
Unmarried	49.5% ± 4.9%	10,084	
Birthweight			<.01
<2500 grams	53.4% ± 3.3%	3,328	
2500+ grams	**58.8%** ± 1.9%	**58,379**	

The Healthy People 2010 target for seat belt use is 92%. However, only 87.6% of Utah PRAMS respondents indicated that they always wore a seat belt during the last three months of pregnancy.

Researchers have demonstrated that counseling increases the rate of seat belt use among pregnant women, and both the American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) recommend that prenatal care providers counsel their patients to wear seat belts throughout their pregnancy.[1] Despite this recommendation, 58.4% of Utah women reported that their health care providers did not talk with them about seat belt use.

Women who were older than 30, had some higher education, or reported non-Hispanic ethnicity were less likely to report a seat belt discussion with their health care providers.

1. Sirin H, Weiss HB, Sauber-Schatz EK, Dunning K. Seat belt use, counseling and motor-vehicle injury during pregnancy: results from a multi-state population-based survey.
Matern Child Health J. 2007 Sep;11(5):505-10. Epub 2007 Mar 6.

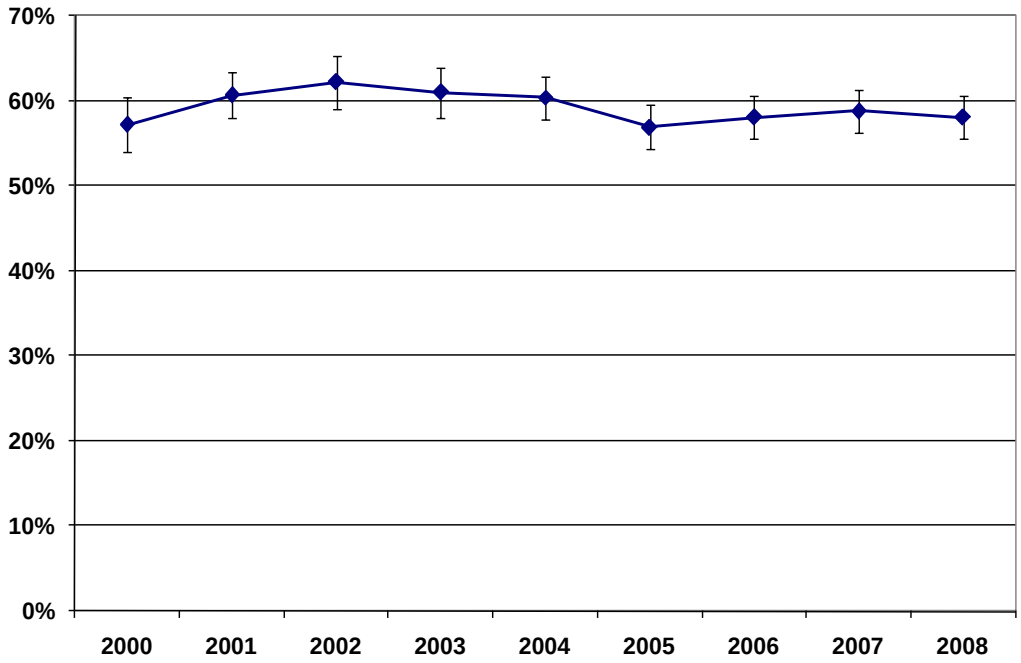
Seat Belt Use Discussion With Health Care Provider

Nationally, motor vehicle injuries are the leading cause of death and hospitalized trauma for women during pregnancy.[1] The proportion of pregnant women who report "always" using a seat belt has not changed significantly over the last decade. This may be due in part to the lack of progress in convincing more health care providers to discuss the importance of using a seatbelt during pregnancy at the time of care visits.

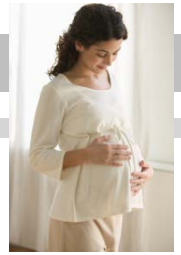
Trend data show little change in the proportion of women reporting that their health care provider did not discuss the importance of seat belt use.

1. 2002 PRAMS Surveillance Report: Multistate Exhibits Prenatal Care Counseling: Seat Belt Use During Pregnancy

Percentage of Women Who Reported Their Health Care Provider Did Not Talk With Them About Seat Belt Use 2000–2008



"I love my baby so much and I want what is best for him."
~A PRAMS Mom



Physical Abuse During Pregnancy

Survey Question 47a & b

Percentage of Women Who Reported Physical Abuse by a Current or Former Husband/Partner During Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**2.2% ± 0.5%**	**2,316**	
Maternal Age			<.0001
≤ 17	^	^	
18 - 19	**7.1%** ± 3.5%	384	
20 - 24	3.6% ± 1.2%	**996**	
25 - 29	0.9%* ± 0.5%	337*	
30 - 34	2.0% ± 1.1%	478	
35 - 39	^	^	
40 +	^	^	
Education Level			<.0001
Less than High School	**6.8%** ± 1.8%	**1,003**	
Completed High School	2.6% ± 1.1%	828	
Some College	1.0%* ± 0.7%	278*	
College Graduate	^	^	
Race			NS
White	2.0% ± 0.5%	**2,048**	
Other than White	**4.4%*** ± 3.3%	232*	
Hispanic Ethnicity			<.01
Hispanic	**4.1%** ± 1.4%	718	
Non-Hispanic	1.8% ± 0.5%	**1,579**	
Marital Status			<.0001
Married	0.8% ± 0.3%	672	
Unmarried	**7.9%** ± 2.0%	**1,644**	
Birthweight			NS
<2500 grams	**2.8%** ± 1.1%	178	
2500+ grams	2.1% ± 0.5%	**2,138**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Compared to 2004-2005 PRAMS data, both the percentage and the overall number of Utah women reporting abuse during pregnancy decreased during 2007-2008. However, the percentage increased for women with less than a high school education during the same period.

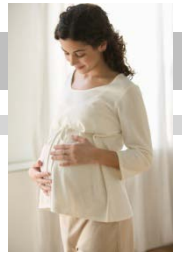
Research indicates that women who are subjected to domestic violence are more likely to have poor outcomes, such as low birthweight infants, preterm labor, or intrauterine fetal death. Women are more likely to report smoking and substance abuse, late entry into prenatal care, vaginitis, sexually transmitted diseases, and urinary tract infections.[1]

In addition, victims of domestic violence may be more likely to experience depression, anxiety, and post-traumatic stress disorder, conditions that can negatively affect mother-infant bonding.[2]

1. Boy A, Salihu H: Intimate Partner Violence and Birth Outcomes: A Systematic Review. International Journal of Fertility and Women's Medicine 2004 Jul-Aug; 49(4):159-164

2. Bohn D, Tebben J, Campbell J: Influences of Income, Education, Age, and Ethnicity on Physical Abuse Before and During Pregnancy. Journal of Obstetric, Gynecologic, and Neonatal Nursing 2004 Sep-Oct; 33(5): 561-571

Physical Abuse During Pregnancy

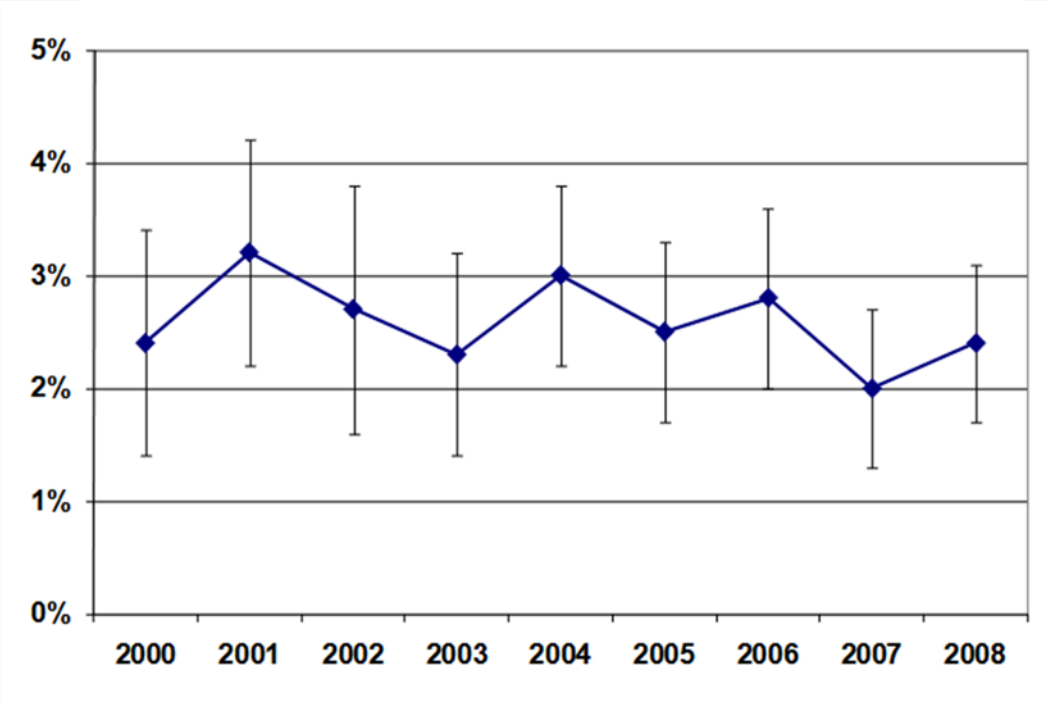


Trend data show a slight fluctuation in the percentage of women reporting abuse during pregnancy. However, for the estimated 2,316 women who reported physical abuse by a current or former husband/partner during pregnancy between 2007-2008, intimate partner violence (IPV) created a uniquely unhealthy physical and psychological environment for both mother and infant.

Physical abuse is costly to health systems as well since women who experience domestic violence during pregnancy use health care services more frequently than women who did not report abuse during pregnancy.[1]

1. Lutz, K. Abused Pregnant Women's Interactions With Health Care Providers During the Childbearing Year. Journal of Obstetric, Gynecologic, and Neonatal Nursing 2005 Mar-Apr; 34(2):151-162

Percentage of Women Reporting Physical Abuse by a Current or Former Husband/Partner During Pregnancy, 2000–2008



Emotional Abuse During Pregnancy

Survey Question 84a, 84b or 84c

Percentage of Women Who Reported Emotional Abuse by Husband/Partner During Pregnancy

Characteristics	Percent (95% Confidence		Population Estimate	P-Value
Total Birth Population	**5.4%**	**± 0.8%**	**5,849**	
Maternal Age				<.0001
≤ 17	14.6%	± 6.5%	296	
18 - 19	**14.8%**	± 5.2%	813	
20 - 24	8.0%	± 1.8%	**2,225**	
25 - 29	3.3%	± 1.1%	1,274	
30 - 34	4.0%	± 1.5%	954	
35 - 39	1.8%*	± 1.1%	148*	
40 +	7.6%*	± 7.1%	138*	
Education Level				<.0001
Less than High School	**12.6%**	± 2.3%	1,906	
Completed High School	7.1%	± 1.7%	**2,322**	
Some College	2.8%	± 1.3%	787	
College Graduate	2.1%	± 1.1%	634	
Race				NS
White	5.2%	± 0.8%	**5,329**	
Other than White	**8.1%**	± 4.0%	435	
Hispanic Ethnicity				<.001
Hispanic	**9.0%**	± 2.1%	1,617	
Non-Hispanic	4.7%	± 0.8%	**4,203**	
Marital Status				<.0001
Married	2.4%	± 0.6%	2,123	
Unmarried	**17.4%**	± 2.9%	**3,726**	
Birthweight				<.05
<2500 grams	**7.2%**	± 1.7%	462	
2500+ grams	5.3%	± 0.8%	**5,387**	

NS Not statistically significant

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Emotional abuse by a husband or partner is a major type of violence that is often overlooked. Emotional abuse is frequently a precursor to or a warning sign of physical abuse. In addition, emotional abuse may be a stronger predictor variable of depression and anxiety than physical abuse.[1] Emotional abuse can include:

- Humiliating, name-calling, using profanity
- Embarrassing victim deliberately—especially in public
- Controlling victim's movement and activities
- Isolating victim from friends and family
- Controlling financial resources
- Withholding information or resources[2]

Overall, 5.4% of PRAMS respondents reported some form of emotional abuse. However, women who were younger than 20 years of age, unmarried, with less than high school education, or of Hispanic ethnicity reported significantly higher rates of emotional abuse.

1. Pico-Alfonso M, Garcia-Linares M I, Celda Navarro N, Blasco-Ros, C, Echeburua E, Martinez M. The impact of physical, psychological, and sexual intimate male partner violence on women's mental health: Depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *Journal of Women's Health,* 2006; *15*(5), 599-611.

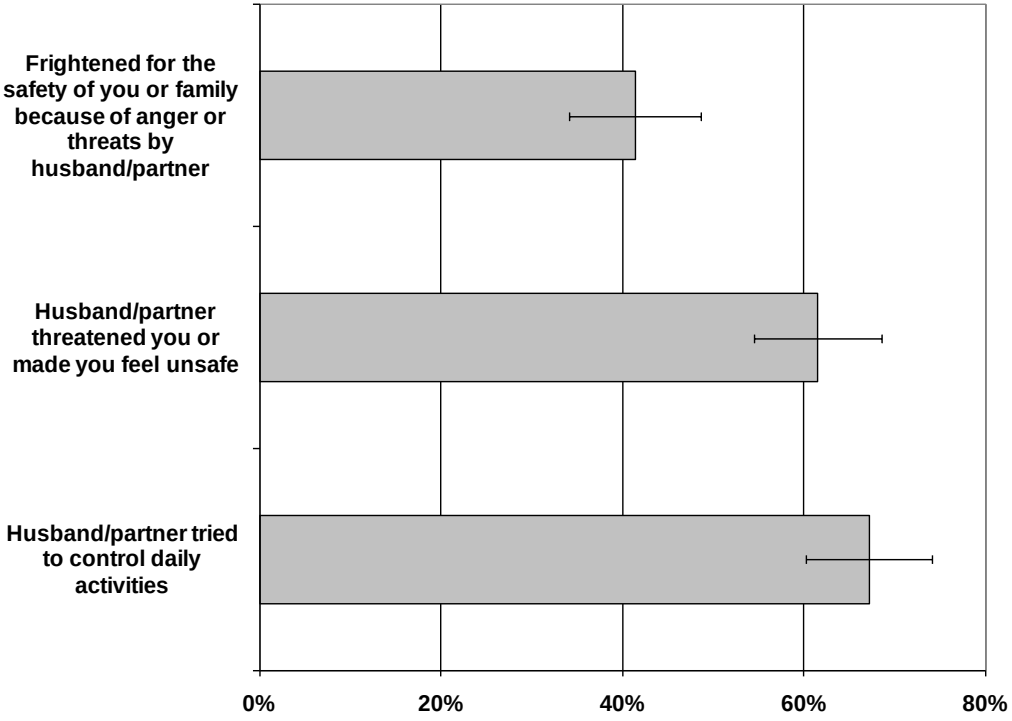
2.http://www.cdc.gov/reproductivehealth/violence/intimatepartnerviolence/sld001.htm

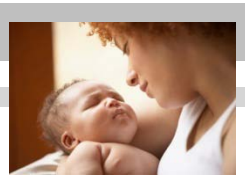
Emotional Abuse During Pregnancy by Type

Violence against women is frequently unrecognized or unreported, and there is no single profile of an abused woman or of a perpetrator.

The most common type of emotional abuse reported by PRAMS respondents was "husband/partner tried to control daily activities" (67.2%). This finding reflects a change from 2004-2005 when the most common type of emotional abuse was "husband/partner threatened you or made you feel unsafe."

Type of Emotional Abuse by Husband/Partner Reported Among PRAMS Respondents, 2007–2008





Group B Strep Test During Pregnancy

Percentage of Women Who Were Not Tested or Do Not Know Whether They Were Tested for Group B Strep During Pregnancy

Characteristics	No Test: Percent (95% Confidence Interval)	No Test: Population Estimate	Don't Know if Tested: Percent (95% Confidence Interval)	Don't Know if Tested: Population Estimate	P-Value
Total Birth Population	**7.9% ± 0.9%**	**8,353**	**9.5% ± 1.0%**	**10,120**	
Maternal Age					<.001
≤ 17	**9.8%*** ± 5.7%	197*	**21.4%** ± 8.2%	430	
18 - 19	8.1% ± 3.7%	438	14.6% ± 4.7%	785	
20 - 24	6.9% ± 1.6%	1,891	11.7% ± 2.2%	3,227	
25 - 29	7.8% ± 2.8%	**2,959**	8.5% ± 1.6%	**3,240**	
30 - 34	8.8% ± 2.1%	2,048	6.1% ± 1.7%	1,420	
35 - 39	8.5% ± 3.4%	698	8.6% ± 3.2%	704	
40 +	7.1%* ± 4.7%	122*	18.3%* ± 10.7%	314*	
Education Level					<.0001
Less than High School	**14.6%** ± 2.5%	2,064	**26.5%** ± 3.1%	**3,743**	
Completed High School	8.2% ± 1.7%	**2,615**	11.0% ± 2.0%	3,519	
Some College	7.6% ± 2.0%	2,104	6.0% ± 1.8%	1,651	
College Graduate	4.1% ± 1.4%	1,242	3.3% ± 1.3%	1,011	
Race					<.01
White	7.9% ± 0.9%	**7,901**	8.9% ± 0.9%	**8,877**	
Other than White	**6.9%** ± 3.7%	358	**21.3%** ± 6.5%	1,114	
Hispanic Ethnicity					<.0001
Hispanic	**16.4%** ± 2.9%	2,749	**28.4%** ± 3.6%	4,776	
Non-Hispanic	6.3% ± 0.9%	**5,571**	5.9% ± 0.9%	**5,291**	
Marital Status					<.0001
Married	7.1% ± 1.0%	**6,060**	7.3% ± 1.0%	**6,267**	
Unmarried	**11.2%** + 2.3%	2,292	**18.8%** + 2.9%	3,854	

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

In its 2010 revised guidelines for the prevention of perinatal group B streptococcal (GBS) disease, the CDC indicated that "despite substantial progress in prevention of perinatal GBS disease since the 1990s, GBS remains the leading cause of early-onset neonatal sepsis in the United States."

Although early-onset GBS disease has become relatively uncommon in recent years due to screening and the use of intrapartum antibiotic prophylaxis, "the rates of maternal GBS colonization (and therefore the risk for early-onset GBS disease in the absence of intrapartum antibiotic prophylaxis) remain unchanged since the 1970s."

The CDC, ACOG, and the AAP recommend that "in the absence of a licensed GBS vaccine, universal screening and intrapartum antibiotic prophylaxis continue to be the cornerstones of early-onset GBS disease prevention."[1]

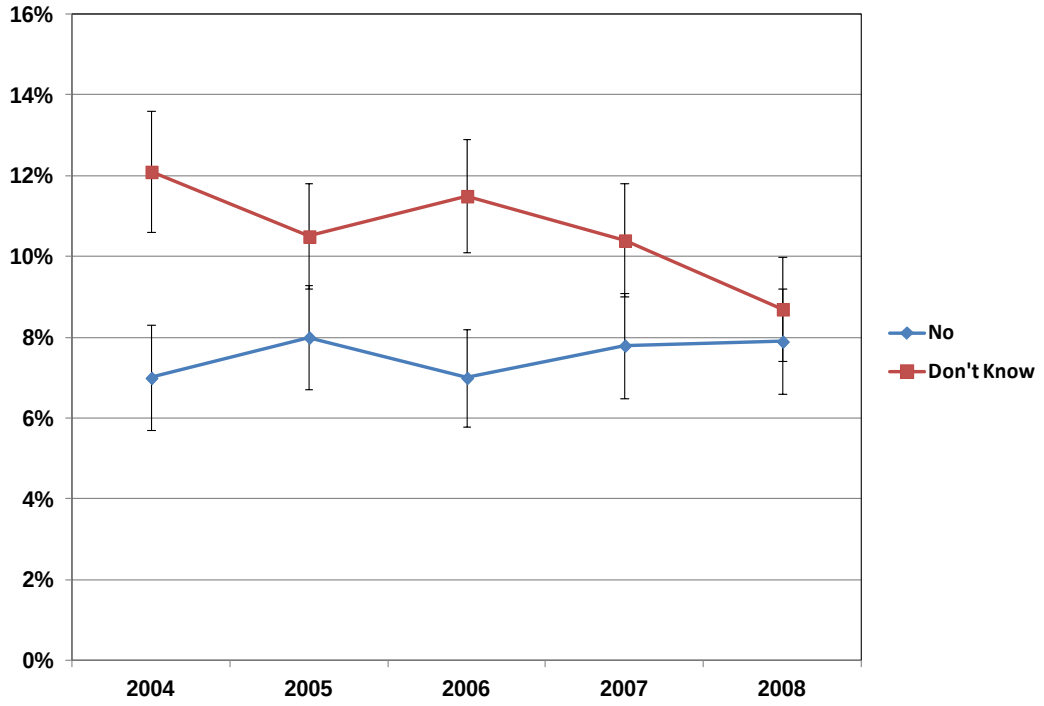
1. Department of Health and Human Services, Centers for Disease Control and Prevention. Prevention of Perinatal Group B Streptococcal Disease Revised Guidelines from CDC, 2010. MMWR November 19, 2010, 59(RR-10):1-33.

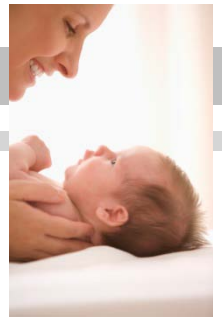
Group B Strep Diagnosis by Testing Status

Nearly 8% of PRAMS respondents reported they were not tested for group B strep and another 9.5% did not know if they were tested.

Trend data show that while there has been little change in the proportion of women who report no group B strep test, the proportion of women who do not know their testing status has declined since 2004.

Percentage of Women Who Reported Group B Strep Infection Diagnosis During Pregnancy by Testing Status, 2004–2008





HIV Test During Pregnancy

Survey Question 31

Percentage of Women Who Were Not Tested for HIV During Pregnancy

Characteristics	No Test: Percent (95% Confidence Interval)	No Test: Population Estimate	Don't Know if Tested: Percent (95% Confidence Interval)	Don't Know if Tested: Population Estimate	P-Value
Total Birth Population	**49.4% ± 1.8%**	**52,718**	**13.0% ± 1.2%**	**13,846**	
Maternal Age					<.0001
≤ 17	23.3% ± 7.8%	469	15.0% ± 6.9%	303	
18 - 19	28.7% ± 6.6%	1,553	**15.2%** ± 5.1%	823	
20 - 24	42.9% ± 3.6%	11,816	14.7% ± 2.6%	4,049	
25 - 29	53.9% ± 3.1%	**20,698**	12.1% ± 2.0%	**4,633**	
30 - 34	54.1% ± 4.0%	12,691	11.5% ± 2.5%	2,690	
35 - 39	**55.5%** ± 6.7%	4,589	13.3% ± 4.6%	1,103	
40 +	53.3% ± 14.4%	901	14.5%* ± 9.6%	245*	
Education Level					<.0001
Less than High School	30.3% ± 3.2%	4,363	13.7% ± 2.4%	1,979	
Completed High School	42.3% ± 3.2%	13,497	**13.8%** ± 2.2%	**4,397**	
Some College	54.5% ± 3.9%	15,093	13.3% ± 2.7%	3,686	
College Graduate	**62.4%** ± 3.6%	**19,106**	11.5% ± 2.4%	3,515	
Race					<.05
White	**50.0%** ± 1.9%	**50,376**	**13.1%** ± 1.3%	**13,153**	
Other than White	40.7% ± 8.2%	2,097	11.4% ± 5.1%	586	
Hispanic Ethnicity					<.0001
Hispanic	34.9% ± 4.0%	6,011	12.7% ± 2.8%	2,181	
Non-Hispanic	**52.3%** ± 2.0%	**46,564**	**13.1%** ± 1.4%	**11,646**	
Marital Status					<.0001
Married	**54.0%** ± 2.1%	**46,362**	**13.3%** ± 1.4%	**11,438**	
Unmarried	30.4% ± 3.6%	6,356	11.5% ± 2.4%	2,408	
Birthweight					<.001
<2500 grams	42.9% ± 3.2%	2,701	**14.1%** ± 2.4%	889	
2500+ grams	**49.8%** ± 1.9%	**49,982**	12.9% ± 1.3%	**12,957**	

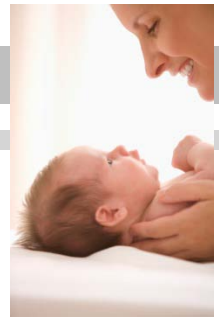
* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Nearly 50% of PRAMS respondents reported that they were not tested for HIV during pregnancy, and an additional 13% were unsure about their testing status.

While maternal transmission of HIV is uncommon in Utah, 92% of Utah's HIV positive children under 13 years of age contracted HIV from perinatal transmission, underscoring the importance of maternal testing.

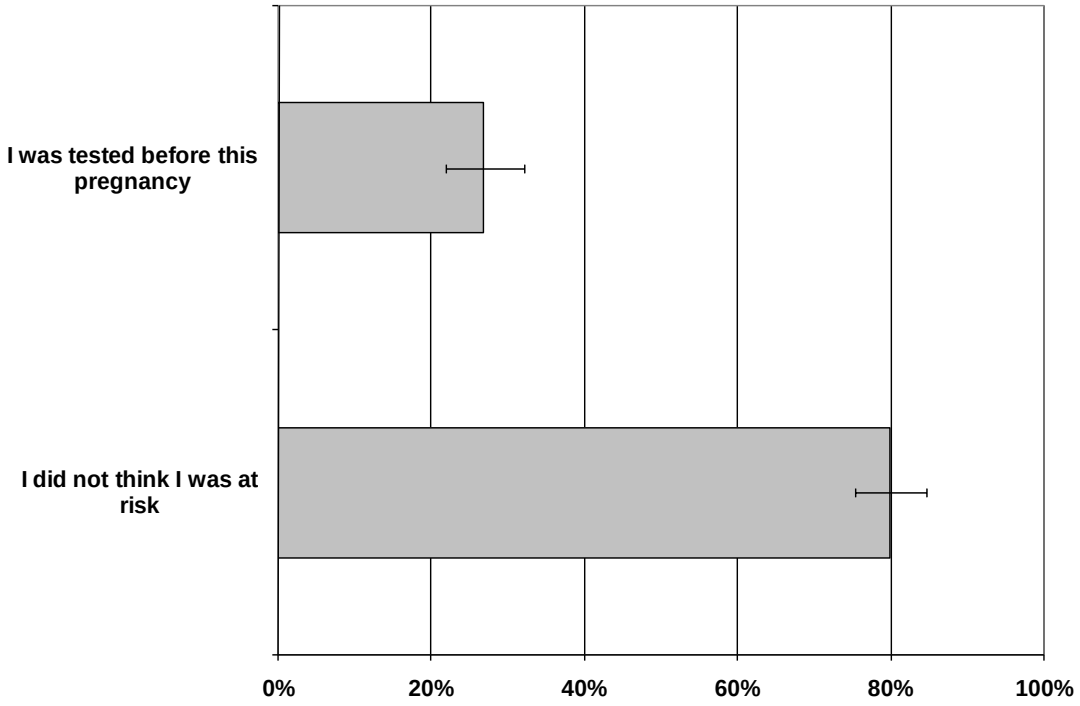
Women who were not tested for HIV during pregnancy were more likely to be older, more educated, non-Hispanic, and married.

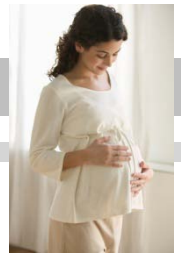
Reasons Not Tested for HIV



Among women who were offered an HIV test and declined it, 80% reported that they did not get tested because they didn't consider themselves at risk for contracting HIV.

Among Women Who Were Not Tested for HIV, Reasons for Not Being Tested, 2007–2008





Sexually Transmitted, Urinary Tract, or Vaginal Infection

Survey Question 72

Percentage of Women Who Reported a Sexually Transmitted, Urinary Tract, or Vaginal Infection During Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**32.9% ± 1.7%**	**35,210**	
Maternal Age			<.0001
≤ 17	40.1% ± 9.5%	789	
18 - 19	**40.2%** ± 7.3%	2,132	
20 - 24	36.7% ± 3.5%	**10,104**	
25 - 29	34.5% ± 3.0%	13,375	
30 - 34	26.3% ± 3.5%	6,193	
35 - 39	28.4% ± 6.1%	2,341	
40 +	15.4%* ± 10.0%	276*	
Education Level			<.001
Less than High School	32.0% ± 3.2%	4,596	
Completed High School	**37.1%** ± 3.1%	**11,928**	
Some College	34.3% ± 3.8%	9,534	
College Graduate	27.6% ± 3.3%	8,472	
Race			NS
White	**32.9%** ± 1.8%	**33,197**	
Other than White	31.7% ± 7.6%	1,646	
Hispanic Ethnicity			<.05
Hispanic	29.0% ± 3.8%	4,975	
Non-Hispanic	**34.0%** ± 1.9%	**30,072**	
Marital Status			<.01
Married	31.5% ± 1.9%	**27,142**	
Unmarried	**38.7%** ± 3.8%	8,068	
Birthweight			NS
<2500 grams	**35.5%** ± 3.2%	2,236	
2500+ grams	32.7% ± 1.8%	**32,973**	

NS Not statistically significant

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

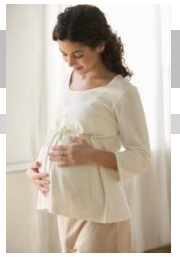
Nearly one-third of PRAMS respondents reported a sexually transmitted, urinary tract, or vaginal infection during pregnancy. Women who were younger, less educated, or unmarried were more likely to report an infection during pregnancy with one notable exception: women reporting group B strep infections were more likely to be older, more educated, white, non-Hispanic, and married.[1]

Maternal infections during pregnancy are associated with increased complications for both mother and infant, including stillbirth, preterm delivery, and infant blindness. Therefore, revised CDC treatment guidelines advise that all pregnant women be "asked about STDs, counseled about the possibility of perinatal infections, and provided access to treatment, if needed." Recommended prevention measures include "high-intensity behavioral counseling for all sexually active adolescents and for adults at increased risk for STDs and HIV."

The CDC urges all health care providers to "routinely obtain a sexual history from their patients and encourage risk-reduction using various strategies" while remembering that "prevention counseling is most effective if provided in a nonjudgmental and empathetic manner appropriate to the patient's culture, language, sex, sexual orientation, age, and developmental level." [2]

1. Utah Department of Health, Maternal and Infant Health Program. Preconception health and health care among Utah women. *PRAMS Perspectives* 2008.
2.Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2010. MMWR 2010;59(RR-12):1-3.

Infection by Type



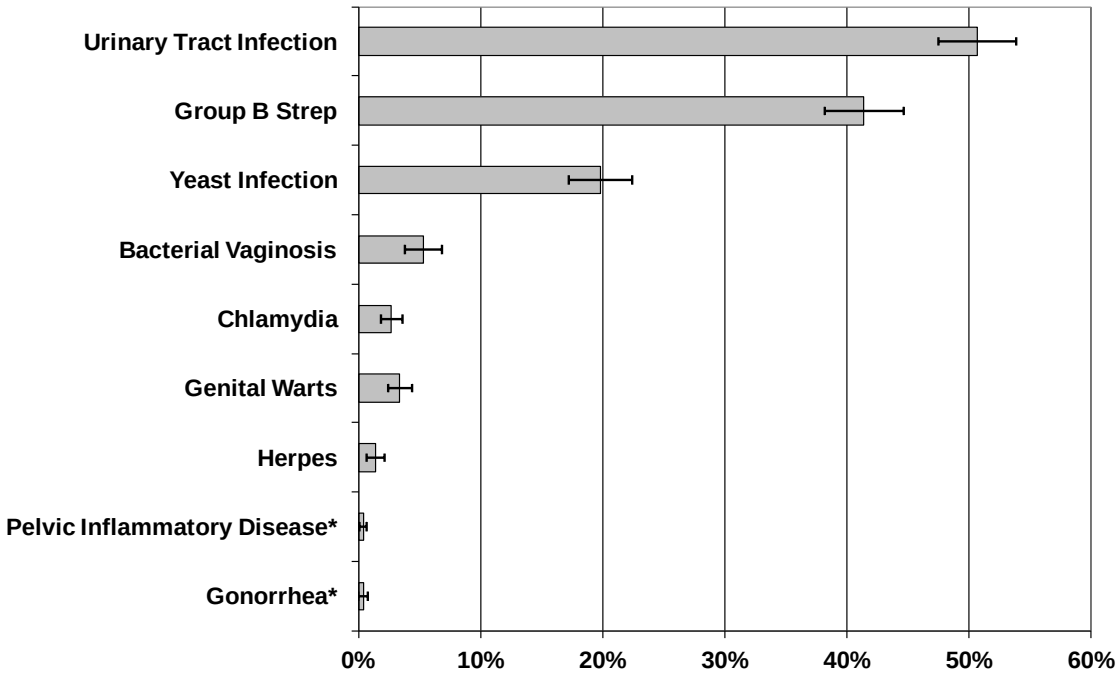
Although the most frequently reported infections were urinary tract infection, group B strep, and yeast infection, the rates of sexually transmitted diseases in Utah have been rising.

Statewide, chlamydia rates increased from 161.3 cases per 100,000 persons in 2003 to 211.9 cases per 100,000 persons in 2007, a 31% increase. The increase in chlamydia cases in Utah follows national trends and is partly due to increased testing. Because women are tested more often than are men, more cases are also reported among women.

Among chlamydia cases reported in women between 2003 and 2007, most cases occurred among white non-Hispanic women. Of the 3,927 women who tested positive for chlamydia during 2007, 793 (20%), indicated that they were pregnant at the time of testing. Although chlamydia usually causes no or nonspecific symptoms, untreated infections can spread to the uterus or fallopian tubes, causing pelvic inflammatory disease (PID) and leading to infertility, chronic pelvic pain, and ectopic pregnancy.[1]

1.Utah Department of Health, Bureau of Communicable Disease Control, 2009. Chlamydia and Gonorrhea Epidemiological Profile Utah 2003-2007.

Percentage of Women Who Reported Sexually Transmitted, Urinary Tract, or Vaginal Infections During Pregnancy by Type, 2007–2008



* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

WIC Participation

Percentage of Women Who Were Enrolled in WIC During Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**27.8% ± 1.5%**	**29,842**	
Maternal Age			<.0001
≤ 17	**67.4%** ± 8.9%	1,364	
18 - 19	51.7% ± 7.3%	2,808	
20 - 24	40.7% ± 3.4%	**11,279**	
25 - 29	21.6% ± 2.4%	8,313	
30 - 34	17.8% ± 2.9%	4,155	
35 - 39	17.5% ± 4.7%	1,464	
40 +	26.4% ± 12.0%	458	
Education Level			<.0001
Less than High School	**63.7%** ± 3.3%	9,432	
Completed High School	35.3% ± 3.1%	**11,298**	
Some College	19.5% ± 3.2%	5,412	
College Graduate	9.4% ± 2.2%	2,884	
Race			<.0001
White	26.7% ± 1.5%	**26,972**	
Other than White	**46.3%** ± 8.2%	2,407	
Hispanic Ethnicity			<.0001
Hispanic	**61.0%** ± 4.0%	10,832	
Non-Hispanic	21.2% ± 1.6%	**18,798**	
Marital Status			<.0001
Married	19.4% ± 1.5%	**16,738**	
Unmarried	**62.1%** ± 3.8%	13,104	
Birthweight			<.001
<2500 grams	**33.4%** ± 3.0%	2,107	
2500+ grams	27.5% ± 1.6%	**27,722**	

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides quality nutrition and breastfeeding education and food vouchers to Utah families with incomes at or below 185% of the federal poverty level (FPL).

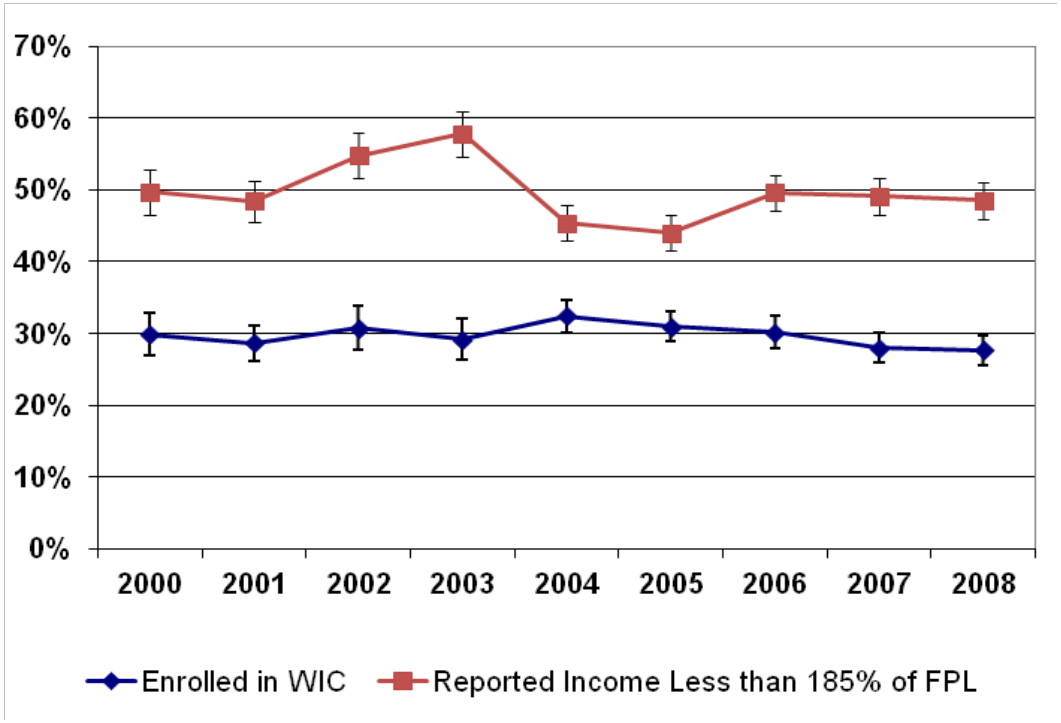
The percentage of PRAMS respondents enrolled in WIC decreased slightly from 31.7% in 2004-2005 to 27.8% in 2007-2008.

Women enrolled in WIC were more likely to be younger, less educated, other than white race, Hispanic, or unmarried. WIC recipients were also more likely to deliver a low birthweight infant than women not enrolled in WIC.

WIC Participation

The percentage of PRAMS respondents receiving WIC services has decreased since 2004. However, WIC is not serving all those whose incomes qualify them for the program. While 49.1% of all PRAMS respondents report incomes at or below 185% of FPL, Utah PRAMS data show that 51.7% (approximately 26,234 women) of those who reported qualifying incomes were not enrolled in WIC during pregnancy.

Percentage of Women Who Were on WIC During Pregnancy, 2000–2008



Prenatal Care Payer

Percentage of Prenatal Care Payer Types

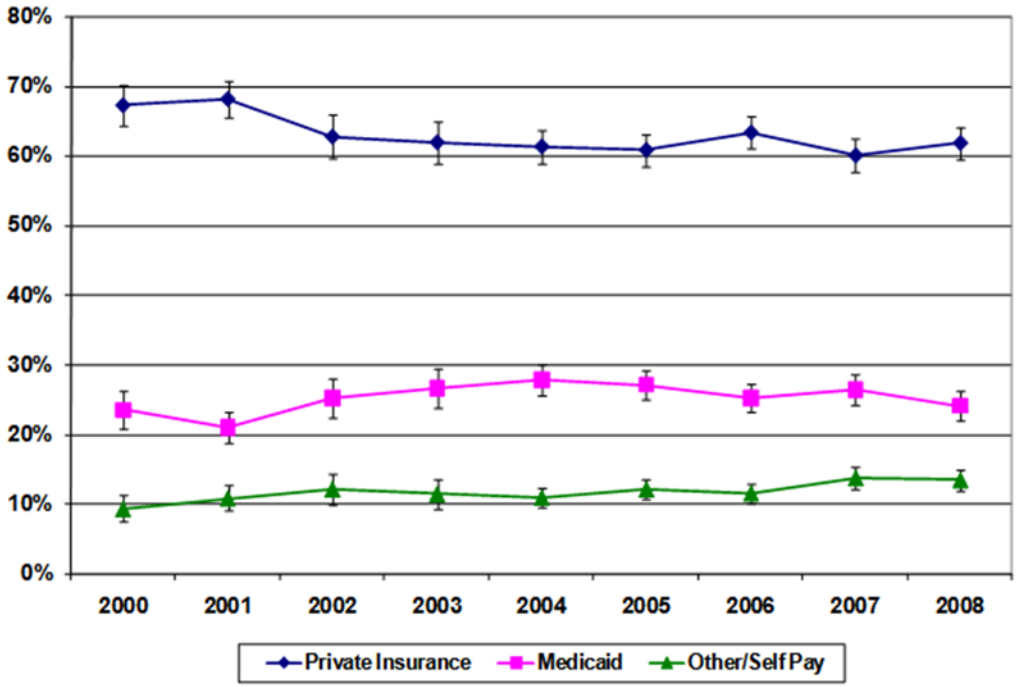
	Private Insurance		Medicaid		Self-Pay or Other		
Characteristics	**Percent (95% Confidence Interval)**	**Population Estimate**	**Percent (95% Confidence Interval)**	**Population Estimate**	**Percent (95% Confidence Interval)**	**Population Estimate**	**P-Value**
Total Birth Population	**61.0% ± 1.7%**	**64,947**	**25.6% ± 1.5%**	**27,309**	**13.5% ± 1.1%**	**14,457**	
Maternal Age							<.0001
≤ 17	24.3% ± 8.5%	435	49.0% ± 10.0%	877	**26.7%** ± 8.7%	477	
18 - 19	24.0% ± 6.5%	1,291	**62.8%** ± 7.2%	3,375	13.2% ± 4.7%	712	
20 - 24	47.3% ± 3.6%	13,047	40.0% ± 3.5%	**11,000**	12.9% ± 2.2%	3,550	
25 - 29	68.1% ± 2.8%	**26,107**	19.8% ± 2.4%	7,601	12.1% ± 1.9%	**4,621**	
30 - 34	71.8% ± 3.5%	16,802	13.1% ± 2.6%	3,067	15.1% ± 2.7%	3,526	
35 - 39	**73.6%** ± 5.6%	6,204	12.9% ± 4.2%	1,087	13.5% ± 4.3%	1,142	
40 +	59.2% ± 13.8%	1,062	16.9%* ± 10.7%	304*	23.9% ± 11.6%	429	
Education Level							<.0001
Less than High School	16.9% ± 2.6%	2,426	**45.3%** ± 3.5%	6,505	**37.8%** ± 3.4%	**5,427**	
Completed High School	51.4% ± 3.3%	16,424	35.8% ± 3.1%	**11,449**	12.8% ± 2.2%	4,079	
Some College	69.3% ± 3.7%	19,275	21.5% ± 3.3%	5,970	9.2% ± 2.3%	2,563	
College Graduate	**84.1%** ± 2.8%	**25,725**	9.2% ± 2.2%	2,824	6.6% ± 1.9%	2,031	
Race							<.0001
White	**62.1%** ± 1.7%	**62,528**	24.4% ± 1.5%	**24,590**	**13.5%** ± 1.2%	**13,584**	
Other than White	40.5% ± 8.2%	2,055	**46.3%** ± 8.2%	2,348	13.1% ± 5.3%	666	
Hispanic Ethnicity							<.0001
Hispanic	28.1% ± 4.0%	4,848	**28.6%** ± 3.7%	4,926	**43.3%** ± 4.0%	**7,470**	
Non-Hispanic	**67.3%** ± 1.8%	**59,815**	24.9% ± 1.7%	**22,169**	7.8% ± 1.1%	6,911	
Marital Status							<.0001
Married	**71.4%** ± 1.8%	**61,465**	17.3% ± 1.5%	**14,905**	11.3% ± 1.2%	**9,746**	
Unmarried	16.9% ± 3.1%	3,482	**60.2%** ± 3.8%	12,405	**22.9%** ± 3.1%	4,710	
Birthweight							<.01
<2500 grams	56.1% ± 3.0%	3,510	**31.6%** ± 3.0%	1,976	12.4% ± 2.2%	776	
2500+ grams	**61.1%** ± 1.7%	**61,406**	25.2% ± 1.6%	**25,327**	**13.6%** ± 1.2%	**13,661**	

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

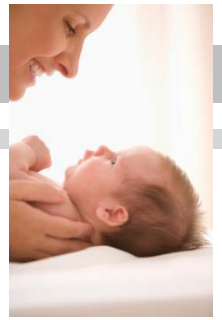
Prenatal Care Payer

The majority of PRAMS respondents reported having private insurance coverage for their prenatal care services; however, the percentage of women in this category has declined since 2000. The percentage of women covered by Medicaid also declined slightly since 2004-2005, while the percentage of women who self-pay for prenatal care increased.

Percentage of Prenatal Care Payer Types, 2000–2008



"Both my partner and I lost our jobs just before I got pregnant. We were able to find new jobs quickly, but had to wait for medical insurance."
~A PRAMS Mom



Trimester Medicaid Coverage Began

Survey Question 77

Trimester Medicaid Coverage Began Among Women Who Applied

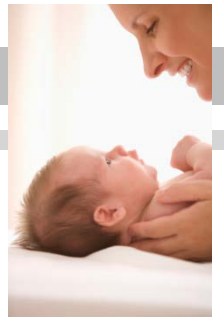
Characteristics	First Trimester Percent (95% Confidence Interval)	First Trimester Population Estimate	Second Trimester Percent (95% Confidence Interval)	Second Trimester Population Estimate	Third Trimester Percent (95% Confidence Interval)	Third Trimester Population Estimate	No Coverage Percent (95% Confidence Interval)	No Coverage Population Estimate	P-Value
Total Birth Population	**39.1% ± 3.2%**	**12,149**	**18.5% ± 2.6%**	**5,728**	**15.5% ± 2.3%**	**4,817**	**26.9% ± 2.8%**	**8,350**	
Maternal Age									<.01
≤ 17	18.8% ± 10.1%	245	18.2% ± 10.0%	237	14.3% ± 8.2%	186	**48.7%** ± 12.3%	634	
18 - 19	**44.9%** ± 9.0%	1,590	16.8% ± 6.5%	594	18.6% ± 7.2%	657	19.8% ± 7.1%	702	
20 - 24	43.3% ± 5.2%	**5,274**	**19.3%** ± 4.2%	**2,355**	15.7% ± 3.7%	**1,911**	21.7% ± 4.3%	2,637	
25 - 29	36.6% ± 6.2%	3,198	19.0% ± 5.1%	1,657	12.0% ± 4.1%	1,051	32.4% ± 5.9%	**2,830**	
30 - 34	32.5% ± 9.5%	1,167	17.6% ± 7.7%	630	18.1% ± 7.4%	649	31.8% ± 8.7%	1,141	
35 - 39	43.1% ± 15.7%	542	11.6%* ± 10.0%	146*	**21.5%*** ± 13.4%	271*	23.7% ± 12.7%	298	
40 +	^	^	^	^	^	^	^	^	
Education Level									<.0001
Less than High School	25.8% ± 4.1%	1,997	16.9% ± 3.7%	1,308	**19.2%** ± 3.8%	1,485	**38.1%** ± 4.6%	2,946	
Completed High School	**44.8%** ± 5.2%	**5,670**	17.2% ± 4.0%	**2,181**	14.9% ± 3.8%	**1,890**	23.0% ± 4.4%	**2,908**	
Some College	41.6% ± 8.1%	2,786	**21.6%** ± 6.7%	1,448	15.2% ± 5.9%	1,020	21.6% ± 6.7%	1,444	
College Graduate	42.4% ± 11.3%	1,397	21.2% ± 9.5%	697	8.9*% ± 6.4%	292*	27.6% ± 10.2%	909	
Race									NS
White	**38.8%** ± 3.4%	**11,022**	18.6% ± 2.7%	**5,269**	15.3% ± 2.4%	**4,345**	**27.3%** ± 3.0%	**7,757**	
Other than White	38.7% ± 12.2%	852	**20.1%** ± 9.8%	442	**18.7%** ± 9.9%	411	22.5% ± 10.0%	496	
Hispanic Ethnicity									<.0001
Hispanic	21.6% ± 5.2%	1,779	10.4% ± 3.5%	852	**20.0%** ± 4.6%	1,648	**47.9%** ± 5.8%	3,941	
Non-Hispanic	**45.3%** ± 3.9%	**10,236**	**21.5%** ± 3.3%	**4,866**	13.9% ± 2.7%	**3,137**	19.3% ± 3.1%	**4,354**	
Marital Status									NS
Married	38.6% ± 4.2%	**7,076**	**18.6%** ± 3.4%	**3,416**	13.9% ± 3.0%	**2,544**	**28.8%** ± 3.9%	**5,280**	
Unmarried	**40.0%** ± 4.9%	5,073	18.2% ± 3.9%	2,312	**17.9%** ± 3.7%	2,273	24.1% ± 4.0%	3,070	
Birthweight									NS
<2500 grams	37.4% ± 5.9%	751	**19.6%** ± 5.0%	393	13.5% ± 4.3%	272	**29.5%** ± 5.5%	591	
2500+ grams	**39.2%** ± 3.4%	**11,391**	18.4% ± 2.7%	**5,335**	**15.7%** ± 2.5%	**4,545**	26.7% ± 3.0%	**7,752**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

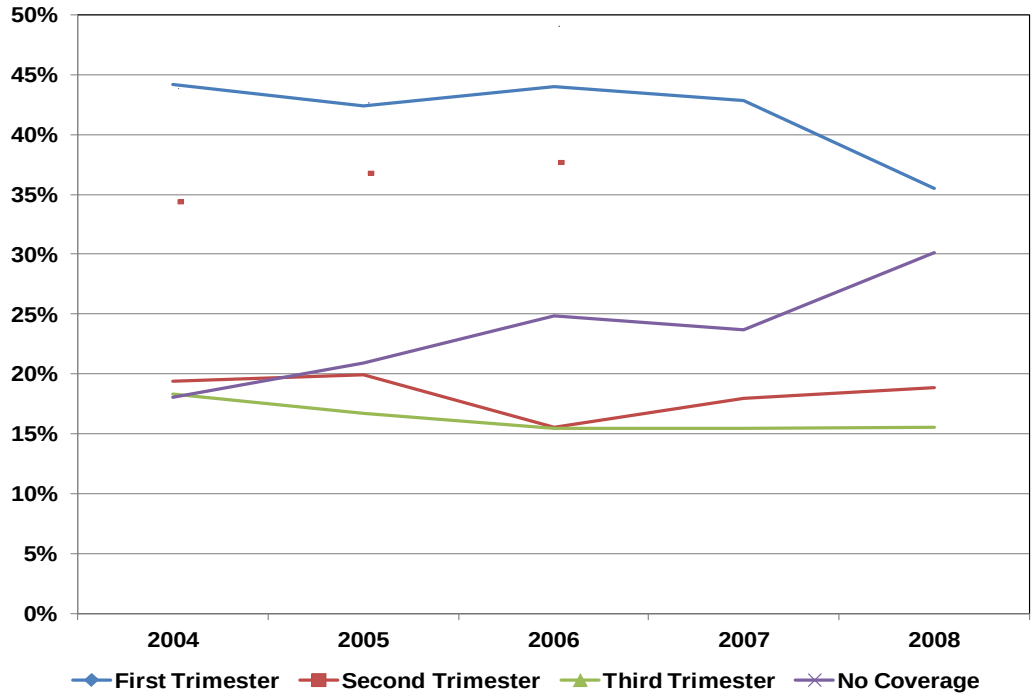
Trimester Medicaid Received

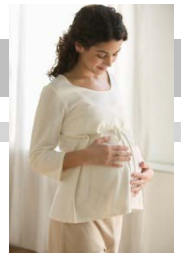


Among women who applied for Medicaid, only 39.1% obtained coverage during their first trimester of pregnancy. Trend data show that the percentage of Medicaid applicants who received coverage in the first trimester has decreased, while the percentage of applicants who did not obtain coverage has increased since 2004. The PRAMS data do not discern if the late coverage was due to when a woman applied or to application processing time.

In 2004-2005, 28% of PRAMS respondents who applied for Medicaid reported they encountered problems with the application process. This percentage increased to 36.5% for 2007-2008. Women who applied for but did not obtain Medicaid coverage were more likely to be 25-29 years old, of Hispanic ethnicity, have less than a high school education, and gave birth to a low birthweight infant.

Trimester Medicaid Coverage Received, 2004–2008





Care for Dental Problems

Survey Question 85a & b

Percentage of Women Who Reported Dental Problems During Pregnancy and Did Not Get Dental Care

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**34.7% ± 3.5%**	**9,301**	
Maternal Age			NS
≤ 17	26.8%* ± 17.7%	106*	
18 - 19	34.1% ± 13.1%	519	
20 - 24	36.0% ± 6.3%	2,938	
25 - 29	34.8% ± 6.2%	**3,003**	
30 - 34	32.3% ± 7.4%	1,917	
35 - 39	**38.4%** ± 15.1%	569	
40 +	33.9%* + 22.4%	249*	
Education Level			NS
Less than High School	**40.4%** ± 6.3%	1,726	
Completed High School	34.3% ± 5.6%	**3,466**	
Some College	36.7% ± 7.8%	2,486	
College Graduate	28.8% ± 8.3%	1,494	
Race			NS
White	34.8% ± 3.6%	**8,688**	
Other than White	**35.2%** ± 14.0%	559	
Hispanic Ethnicity			<.05
Hispanic	**44.8%** ± 9.0%	1,721	
Non-Hispanic	33.2% ± 3.8%	**7,561**	
Marital Status			NS
Married	32.6% ± 4.1%	**6,265**	
Unmarried	**39.9%** ± 6.5%	3,036	
Birthweight			NS
<2500 grams	**37.1%** ± 6.4%	621	
2500+ grams	34.5% ± 3.7%	**8,673**	

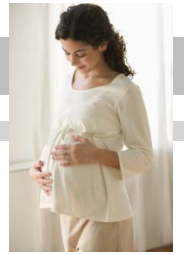
NS Not statistically signficant

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Nearly 35% of women reporting dental problems did not get dental care. Women with less than high school education, of Hispanic ethnicity, unmarried women, and women who gave birth to a low birthweight infant were more likely to report this lack of needed care.

Untreated dental problems remain a serious concern for the maternal population, as pregnant women with untreated dental problems are at risk for adverse pregnancy outcomes, including low birthweight and preterm birth.

Care for Dental Problems



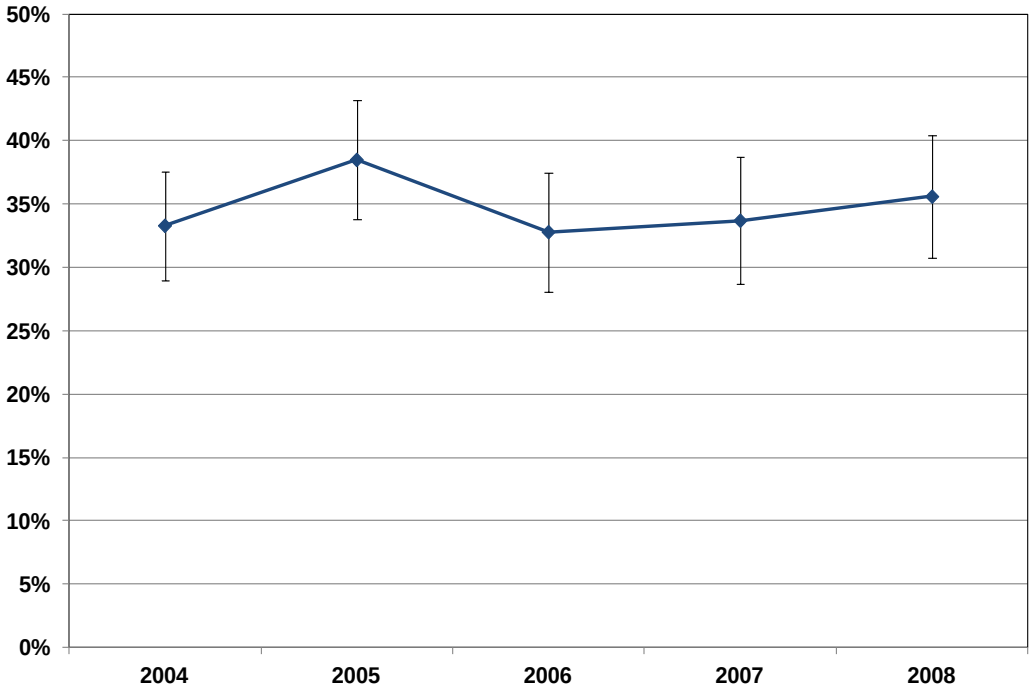
Among women who reported dental problems during pregnancy and did not get dental care, 36.9% had Medicaid coverage compared to 30% during 2004-2005. One of the barriers Medicaid enrollees face is finding a dentist who accepts Medicaid.

Trend data show that the percentage of women who did not receive dental care despite suffering dental problems has increased since 2006.

There needs to be more help in the dental area. I don't have and didn't have dental insurance while I was pregnant and ended up having an emergency root canal done [and] got a severe infection and the reason for all that is I didn't have insurance or any money to go in to see a dentist. I'm still paying on it. If pregnant women are so encouraged to get dental care while pregnant why isn't there more help out there or assistance for pregnant mothers that don't have dental insurance? I was at very high risk of losing my child just because I couldn't get any dental assistance and my work doesn't have dental insurance.

~A PRAMS Mom

Percentage of Women Who Reported Dental Problems During Pregnancy and Did Not Get Dental Care, 2004–2008



Delivery Payer

Percentage of Delivery Payer Types

Characteristics	Private Insurance: Percent (95% Confidence Interval)	Private Insurance: Population Estimate	Medicaid: Percent (95% Confidence Interval)	Medicaid: Population Estimate	Self-Pay or Other: Percent (95% Confidence Interval)	Self-Pay or Other: Population Estimate	P-Value
Total Birth Population	**60.8% ± 1.6%**	**65,164**	**33.3% ± 1.6%**	**35,698**	**6.0% ± 0.9%**	**6,394**	
Maternal Age							<.0001
≤ 17	22.2% ± 8.1%	427	64.8% ± 9.5%	1,248	13.0% ± 7.2%	251	
18 - 19	23.2% ± 6.4%	1,240	**73.5%** ± 6.7%	3,929	3.3*% ± 2.9%	177*	
20 - 24	46.4% ± 3.6%	12,757	49.1% ± 3.5%	**13,518**	4.5% ± 1.4%	1,231	
25 - 29	67.7% ± 2.8%	**26,262**	26.3% ± 2.6%	10,226	5.9% ± 1.4%	**2,284**	
30 - 34	72.8% ± 3.4%	17,182	19.4% ± 2.9%	4,575	7.8% ± 2.2%	1,836	
35 - 39	**74.7%** ± 5.5%	6,213	20.8% ± 5.0%	1,731	4.5%* ± 2.7%	375*	
40 +	60.3% ± 13.8%	1,083	26.3% ± 12.0%	471	**13.4%*** ± 9.9%	240*	
Education Level							<.0001
Less than High School	16.4% ± 2.5%	2,413	**75.7%** ± 2.9%	11,132	**7.9%** ± 1.9%	1,164	
Completed High School	50.7% ± 3.3%	16,221	42.5% ± 3.2%	**13,603**	6.8% ± 1.6%	**2,190**	
Some College	70.0% ± 3.6%	19,497	24.1% ± 3.4%	6,701	6.0% ± 1.9%	1,659	
College Graduate	**84.6%** ± 2.7%	**25,898**	11.0% ± 2.4%	3,354	4.5% ± 1.5%	1,363	
Race							<.0001
White	**61.9%** ± 1.7%	**62,596**	32.1% ± 1.6%	**32,465**	5.9% ± 0.9%	**5,982**	
Other than White	41.4% ± 8.1%	2,187	**51.2%** ± 8.1%	2,701	**7.4%** ± 4.2%	392	
Hispanic Ethnicity							<.0001
Hispanic	25.9% ± 3.9%	4,520	**67.2%** ± 4.0%	11,703	**6.9%** ± 2.0%	1,198	
Non-Hispanic	**67.6%** ± 1.8%	**60,342**	26.6% ± 1.7%	**23,731**	5.8% ± 1.0%	**5,196**	
Marital Status							<.0001
Married	**71.6%** ± 1.8%	**61,968**	22.3% ± 1.6%	**19,273**	**6.1%** ± 1.0%	**5,272**	
Unmarried	15.4% ± 3.0%	3,196	**79.2%** ± 3.3%	16,425	5.4% ± 1.7%	1,122	
Birthweight							<.0001
<2500 grams	55.4% ± 3.0%	3,480	**42.1%** ± 3.0%	2,642	2.5% ± 0.9%	160	
2500+ grams	**61.1%** ± 1.7%	**61,659**	32.7% ± 1.6%	**33,043**	**6.2%** ± 0.9%	**6,220**	

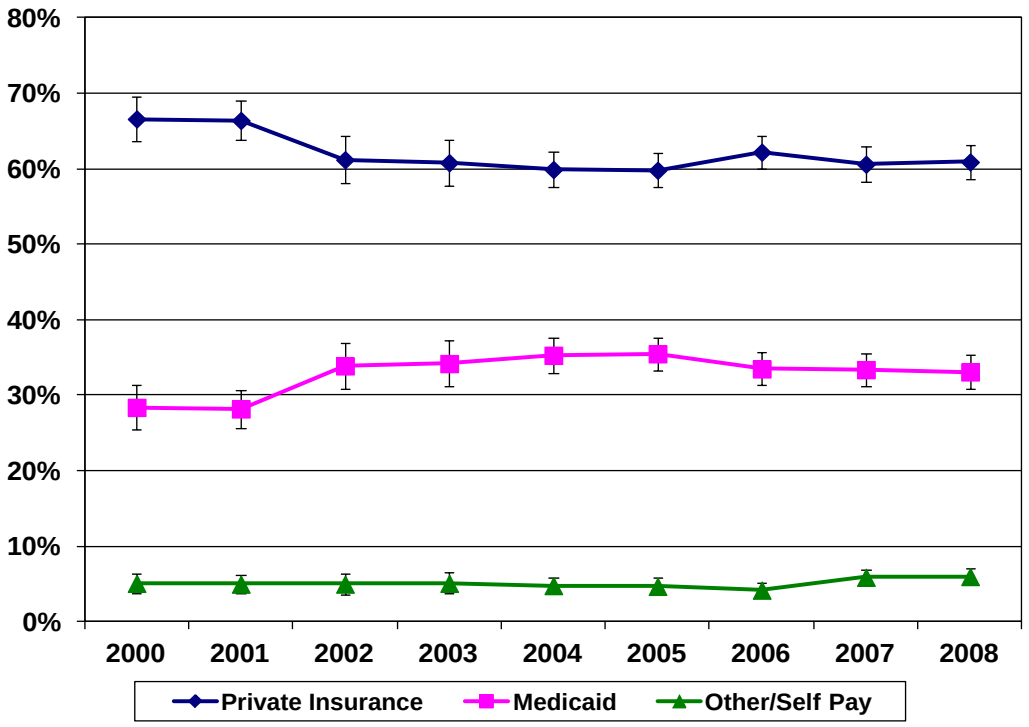
* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

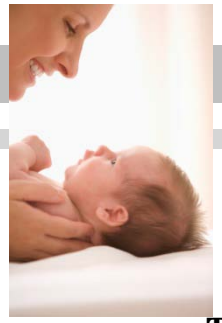
Delivery Payer

Trend data show little change in payer types for deliveries between 2000 and 2008.

> *"We were responsible for the first $5,000 then our insurance kicked in."*
> *~A PRAMS Mom*

Percentage of Delivery Payer Types, 2000–2008





Breastfeeding Discussion With Health Care Provider

Percentage of Women Who Reported Their Health Care Providers Did Not Talk With Them About Breastfeeding

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**26.5% ± 1.6%**	**28,126**	
Maternal Age			<.0001
≤ 17	18.4% ± 8.2%	341	
18 - 19	10.5% ± 4.4%	557	
20 - 24	22.2% ± 3.0%	6,060	
25 - 29	27.4% ± 2.8%	**10,441**	
30 - 34	31.8% ± 3.8%	7,456	
35 - 39	**33.1%** ± 6.5%	2,716	
40 +	31.2% ± 13.3%	555	
Education Level			<.0001
Less than High School	15.8% ± 2.5%	2,246	
Completed High School	23.5% ± 2.8%	7,430	
Some College	26.4% ± 3.5%	7,344	
College Graduate	**34.7%** ± 3.6%	**10,597**	
Race			NS
White	**26.7%** ± 1.7%	**26,707**	
Other than White	24.5% ± 7.3%	1,225	
Hispanic Ethnicity			<.0001
Hispanic	18.5% ± 3.3%	3,165	
Non-Hispanic	**28.1%** ± 1.9%	**24,808**	
Marital Status			<.0001
Married	**28.9%** ± 1.9%	**24,787**	
Unmarried	16.4% ± 3.0%	3,340	
Birthweight			NS
<2500 grams	24.4% ± 2.8%	1,532	
2500+ grams	**26.6%** ± 1.7%	**26,574**	

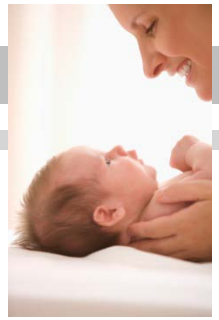
NS Not statistically signficant

Utah meets two of five Healthy People 2010 objectives for breastfeeding: breastfeeding initiation (Utah 84.5%, HP2010 75%) and breastfeeding at six months (Utah 61.5%, HP2010 50%). Healthy People 2010 also had targets for breastfeeding at one year, breastfeeding exclusively through three months, and breastfeeding exclusively through six months.[1] Utah falls behind in these three breastfeeding goals.

ACOG Committee Opinion #361 notes that health care professionals have a unique position to support and educate women about breastfeeding and that "the advice and encouragement of the OB/GYN during preconception, prenatal, postpartum, and interconception care are critical in making the decision to breastfeed."[2]

1. CDC Breastfeeding Report Card.
2. ACOG Committee Opinion No. 361: Breastfeeding: maternal and infant aspects. Obstet Gynecol. 2007 Feb; 109: 479-480.

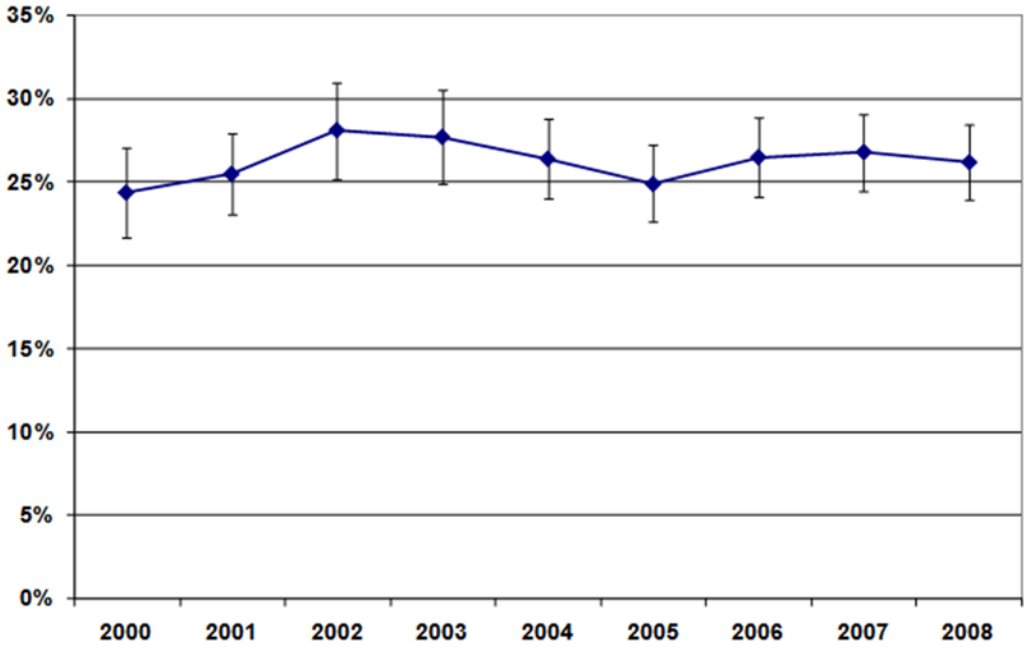
Breastfeeding Discussion With Health Care Provider



Women who were older, more educated, non-Hispanic, or married were more likely to report their health care provider not talking with them about breastfeeding.

Trend data show that the proportion of women reporting no breastfeeding discussion increased slightly since 2005.

Percentage of Women Who Reported Their Health Care Provider Did Not Talk With Them About Breastfeeding 2000–2008



Breastfeeding Initiation

Percentage of Women Who Never Breastfed

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**8.3% ± 1.0%**	**8,818**	
Maternal Age			<.05
≤ 17	**16.9%** ± 7.5%	316	
18 - 19	13.1% ± 4.8%	692	
20 - 24	8.5% ± 1.9%	2,280	
25 - 29	7.3% ± 1.5%	**2,771**	
30 - 34	7.1% ± 2.0%	1,661	
35 - 39	10.7% ± 2.0%	878	
40 +	12.4%* ± 9.7%	221*	
Education Level			<.0001
Less than High School	**13.8%** ± 2.5%	1,958	
Completed High School	11.4% ± 2.1%	**3,608**	
Some College	7.4% ± 2.1%	2,027	
College Graduate	3.6% ± 1.4%	1,082	
Race			0.01
White	7.8% ± 1.0%	**7,820**	
Other than White	**17.2%** ± 6.4%	886	
Hispanic Ethnicity			NS
Hispanic	8.2% ± 2.0%	1,430	
Non-Hispanic	**8.3%** ± 1.1%	**7,313**	
Marital Status			<.0001
Married	7.0% ± 1.0%	**6,030**	
Unmarried	**13.9%** ± 2.7%	2,789	
Birthweight			NS
<2500 grams	**10.4%** ± 2.2%	614	
2500+ grams	8.2% ± 1.0%	**8,204**	

NS Not statistically significant

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Babies who are not breastfed may be at a higher risk for many illnesses, including ear infections, diabetes, food allergies, eczema, and SIDS. Babies who are not breastfed face higher risks for lower cognitive development and childhood obesity. Women who do not breastfeed may be at higher risk for osteoporosis, breast cancer, and ovarian cancer.[1]

Researchers have demonstrated that maternity practices in hospitals such as rooming in for mother-infant pairs and not giving supplemental feedings to breastfed newborns unless medically indicated significantly influence breastfeeding behaviors during a period critical to successful breastfeeding.[2]

Utah meets the Healthy People 2010 objective for breastfeeding initiation, set at 75% in the early postpartum period. Utah ranks 24th out of 52 states and territories in hospital maternity practices that affect breastfeeding initiation and duration.[3]

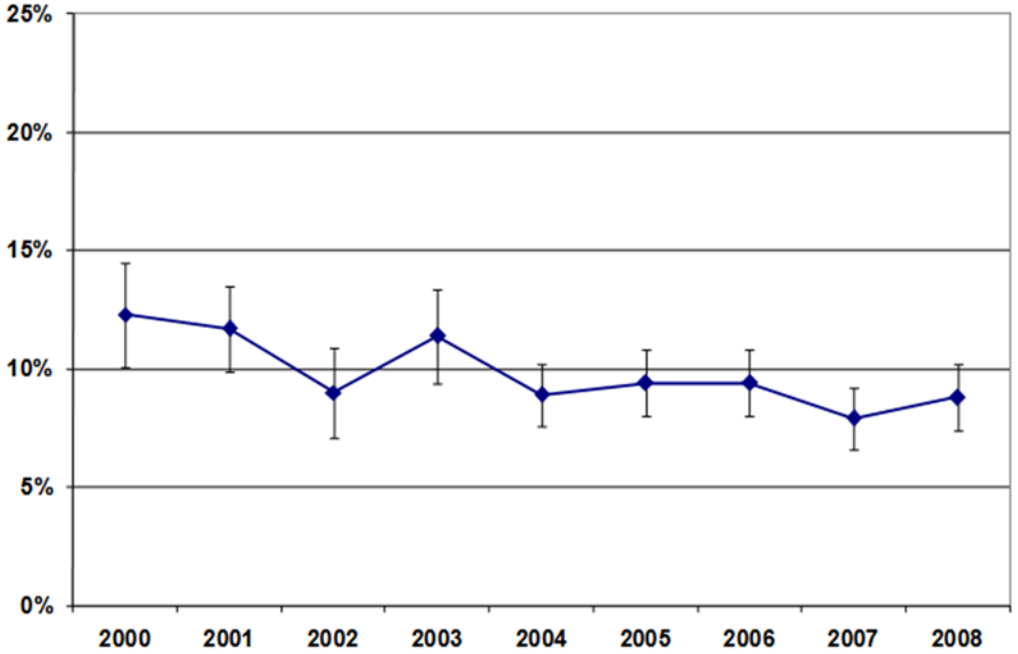
1. Utah Breastfeeding Coalition Retrieved from: http://www.utahbreastfeeding.org/helps_AboutBreastfeeding.php
2. Department of Health and Human Services, Centers for Disease Control and Prevention. Breastfeeding-related maternity practices at hospitals and birth centers—United States. *MMWR*. June13, 2008 / 57(23); 621-625.
3 . Department of Health and Human Services, Centers for Disease Control and Prevention. Maternity practices in infant nutrition and care in Utah—2009 mPINC Survey.

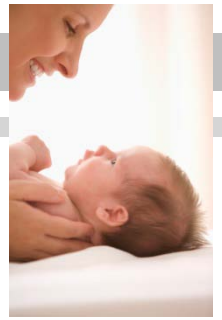
Breastfeeding Initiation

Among Utah PRAMS respondents during 2007-2008, 8.3% did not breastfeed their infants. The percentage is higher for women younger than 20 and older than 35, unmarried, with lower education levels, of other than white race, and who delivered a low birthweight infant.

Trend data show that the percentage of women who never breastfed has decreased overall from 2000 to 2008.

Percentage of Women Who Did Not Breastfeed, 2000–2008





Breastfeeding Continuation

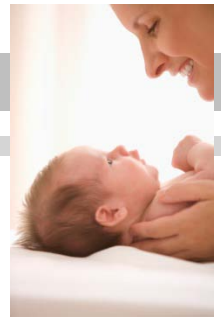
Percentage of Women Who had Stopped Breastfeeding at Time of Survey

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**32.3% ± 1.7%**	**31,119**	
Maternal Age			<.0001
≤ 17	**75.0%** ± 9.6%	1,164	
18 - 19	71.9% ± 7.2%	3,304	
20 - 24	38.1% ± 3.6%	9,355	
25 - 29	28.7% ± 2.9%	**10,144**	
30 - 34	22.2% ± 3.4%	4,796	
35 - 39	26.0% ± 6.2%	1,870	
40 +	31.3% ± 13.5%	485	
Education Level			<.0001
Less than High School	**52.5%** ± 3.7%	6,432	
Completed High School	48.2% ± 3.5%	**13,487**	
Some College	23.8% ± 3.5%	5,979	
College Graduate	15.7% ± 2.8%	4,559	
Race			<.01
White	31.5% ± 1.8%	**28,735**	
Other than White	**47.1%** ± 9.0%	2,007	
Hispanic Ethnicity			<.0001
Hispanic	**48.5%** ± 4.3%	7,644	
Non-Hispanic	29.1% ± 1.9%	**23,315**	
Marital Status			<.0001
Married	26.5% ± 1.8%	**21,008**	
Unmarried	**58.9%** ± 4.3%	10,111	
Birthweight			<.0001
<2500 grams	**47.1%** ± 3.5%	2,496	
2500+ grams	31.4% ± 1.8%	**28,622**	

Healthy People 2010 targets for breastfeeding continuation are for 50% of infants to be breastfeeding at six months and 25% to be breastfeeding at one year of age. Most PRAMS surveys are completed before six months, with an average completion at 3 ½ postpartum.

Of women who reported initiating breastfeeding, 67.7% were still breastfeeding when they responded to the survey. Among PRAMS respondents who stopped breastfeeding, 45.6% had breastfed for one month or less. The average duration of breastfeeding for women no longer breastfeeding at the time of the survey was 6.8 weeks, down from an average of 12.7 weeks in 2004-2005. Women who were younger, less educated, other than white race, unmarried, or mothers of a low birthweight infant were more likely to have stopped breastfeeding at the time of the survey.

Breastfeeding Continuation

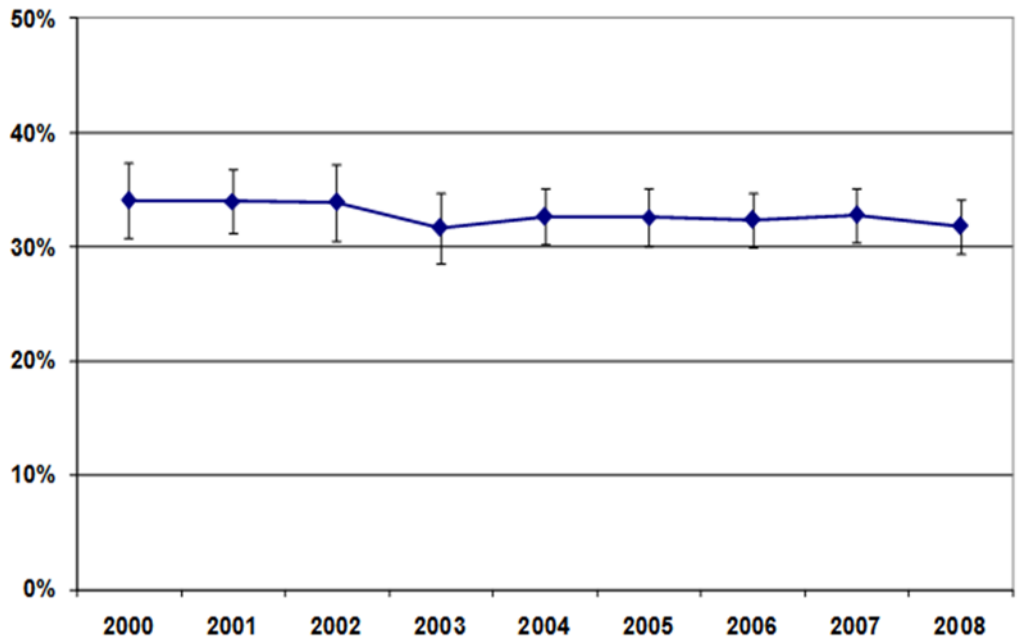


Trend data show little variation in or progress toward increasing breastfeeding duration among PRAMS respondents from 2000-2008.

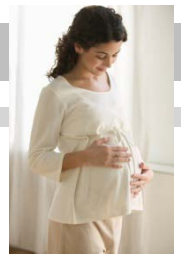
Work related mother-child separation presents a significant challenge to successful continuation of breastfeeding. The United States Breastfeeding Committee (USBC) reports that returning to an unsupportive work environment has been identified as a significant reason for not initiating or discontinuing breastfeeding.[1]

In recognition of the importance of breastfeeding, section 4207 of the Patient Protection and Affordable Care Act (PPACA) amended the Fair Labor Standards Act (FLSA) to require employers to provide reasonable break time and a private, non-bathroom place for nursing mothers to express breast milk during the workday, for one year after the child's birth.[2] Although employers with fewer than 50 employees are not subject to the requirement if compliance with the provision would impose an undue hardship, employers who provide time and space for expressing breast milk enjoy retention of experienced employees, reduction in sick time relating to children's illnesses, and lower health care and insurance costs.[3]

Percentage of Women Who Had Stopped Breastfeeding at Time of Survey, 2000–2008



1. United States Breastfeeding Committee Retrieved from: http://www.usbreastfeeding.org/Default.aspx?TabId=188
2. U.S. Department of Labor , Wage and Hour Division (2010). Fact Sheet #73: Break Time for Nursing Mothers under the FLSA.
3. U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (2008). The Business Case for Breastfeeding.



Postpartum Contraception Use

Survey Question 66

Percentage of Women Who Were Not Using Postpartum Contraception

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**11.5% ± 1.1%**	**12,227**	
Maternal Age			NS
≤ 17	15.0% ± 6.8%	288	
18 - 19	13.4% + 4.7%	720	
20 - 24	10.3% ± 2.0%	2,828	
25 - 29	11.4% ± 2.0%	**4,364**	
30 - 34	10.0% ± 2.4%	2,354	
35 - 39	15.8% ± 4.9%	1,299	
40 +	**21.1%** ± 12.3%	374	
Education Level			<.0001
Less than High School	**18.0%** ± 2.7%	2,562	
Completed High School	11.3% ± 2.1%	**3,621**	
Some College	9.6% ± 2.3%	2,683	
College Graduate	10.2% ± 2.3%	3,108	
Race			<.05
White	11.0% ± 1.2%	**11,102**	
Other than White	**18.4%** ± 6.3%	954	
Hispanic Ethnicity			<.001
Hispanic	**16.4%** ± 3.1%	2,783	
Non-Hispanic	10.5% ± 1.2%	**9,340**	
Marital Status			<.001
Married	10.5% ± 1.3%	**9,007**	
Unmarried	**15.6%** ± 2.8%	3,220	
Birthweight			NS
<2500 grams	**12.9%** ± 2.3%	804	
2500+ grams	11.4% ± 1.2%	**11,410**	

NS Not statistically signficant

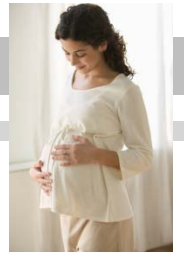
Healthy People 2010 aimed to reduce the number of births that occur less than two years from a previous birth. Adequate birth spacing is critical for healthy pregnancies and healthy babies.

In Utah, 11.5% of women reported not using birth control postpartum, with higher proportions noted for women who were younger than 20 and older than 35, unmarried, with less than high school education, and of other than white race or Hispanic ethnicity. In addition, 18.1% of women reported that their health care providers did not talk with them about postpartum birth control.

Pregnancy, delivery, and postpartum checkups offer critical opportunities to educate women on healthy pregnancy spacing, healthy behaviors, and assist women in making reproductive life plans. However, lack of funding for family planning services in Utah creates problems for obtaining birth control, especially for low income women.

"One thing that impacted my pregnancy was that I had a four month old baby when I got pregnant."
~A PRAMS Mom

Reasons for Not Using Postpartum Contraception

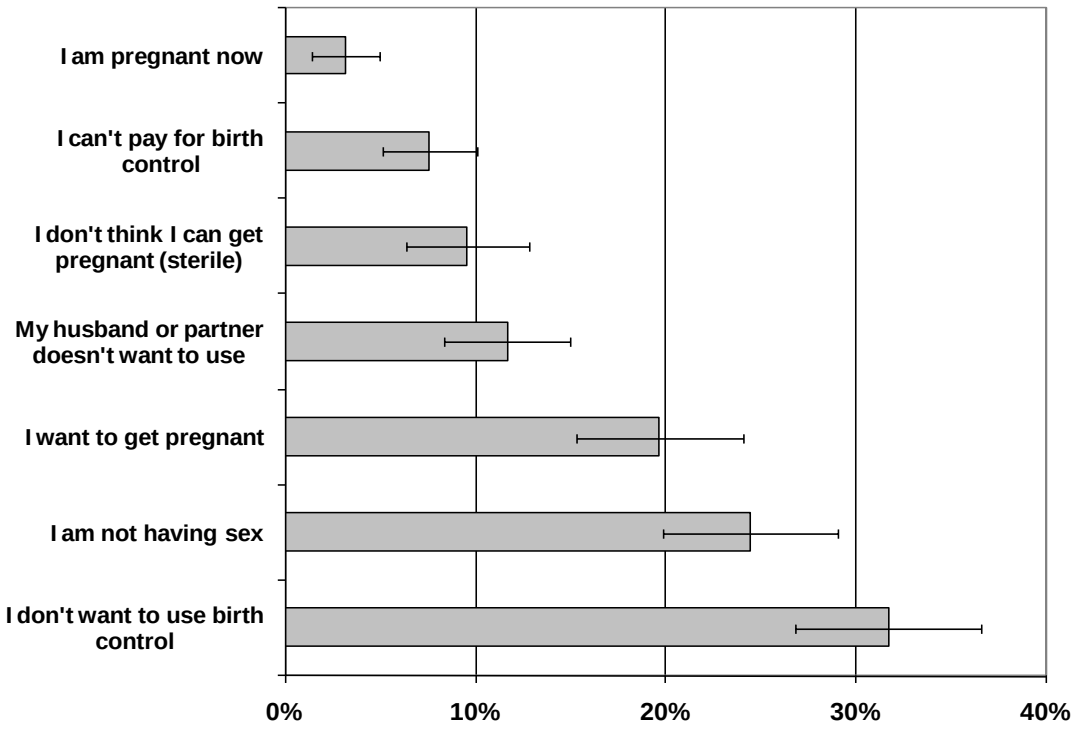


There are various reasons why women may not use contraception to prevent pregnancy following a live birth. The most common reason reported for not using birth control was individual preference, with 31.1% of women reporting not wanting to use birth control. Of the women were not using birth control, 19.7% indicated it was because they wanted to get pregnant. An additional 3.2% of women not on birth control indicated they were already pregnant again.

These reasons suggest that women are unaware of the risks of short interpregnancy interval (IPI), which include prematurity, low birthweight, and small for gestational age infants.[1] Short IPI may also negatively affect a woman's ability to reach a healthy pre-pregnancy weight. In 2007-2008, 29.0% of births occurred with an IPI of 18 months or less.

1. Utah Department of Health, Maternal and Infant Health Program. Short interpregnancy spacing in Utah. *Prams Perspectives* 2006.

Reasons Women Were Not Using Birth Control Postpartum, 2004–2008



"I wanted to get my tubes tied, [but] don't have enough money."
~A PRAMS Mom

Postpartum Depression

Percentage of Women Who Reported Postpartum Depression Symptoms

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**12.0% ± 1.1%**	**13,001**	
Maternal Age			<.05
≤ 17	19.6% ± 7.4%	397	
18 - 19	14.5% ± 5.0%	794	
20 - 24	13.4% ± 2.3%	3,747	
25 - 29	10.0% ± 1.8%	**3,900**	
30 - 34	11.7% ± 2.5%	2,789	
35 - 39	11.2% ± 4.2%	943	
40 +	**23.7%** ± 11.6%	431	
Education Level			<.0001
Less than High School	**18.2%** ± 2.6%	2,758	
Completed High School	13.4% ± 2.2%	**4,359**	
Some College	10.7% ± 2.4%	3,016	
College Graduate	8.3% ± 2.1%	2,568	
Race			<.05
White	11.5% ± 1.2%	**11,752**	
Other than White	**20.1%** ± 6.5%	1,080	
Hispanic Ethnicity			NS
Hispanic	**14.1%** ± 2.7%	2,525	
Non-Hispanic	11.5% ± 1.3%	**10,374**	
Marital Status			<.0001
Married	10.7% ± 1.3%	**9,329**	
Unmarried	**17.1%** ± 2.8%	3,671	
Birthweight			<.0001
<2500 grams	**18.1%** ± 2.6%	1,160	
2500+ grams	11.6% + 1.2%	**11,813**	

NS Not statistically signficant

Postpartum depression (PPD) is the most common complication related to childbirth. In addition to directly influencing the emotional well being of mothers, PPD negatively affects marital relationships, mother–infant bonding, and infant development.[1]

Twelve percent of PRAMS respondents reported PPD symptoms; however, the percentage is much higher among women who were older, less educated, of other than white race, unmarried, or had a low birthweight infant. In addition, women whose prenatal care was covered by Medicaid were twice as likely to report PPD as were women whose prenatal care was covered by private insurance. Because most women lose Medicaid coverage within 60 days of delivery, many women suffering PPD are left without a source of payment for needed services.

1. Department of Health and Human Services, Centers for Disease Control and Prevention. PRAMS and postpartum depression factsheet 2004. Retrieved from: http://www.cdc.gov/prams/PDFs/PRAMS%20PPD%20Factsheet_Final.pdf

Postpartum Depression

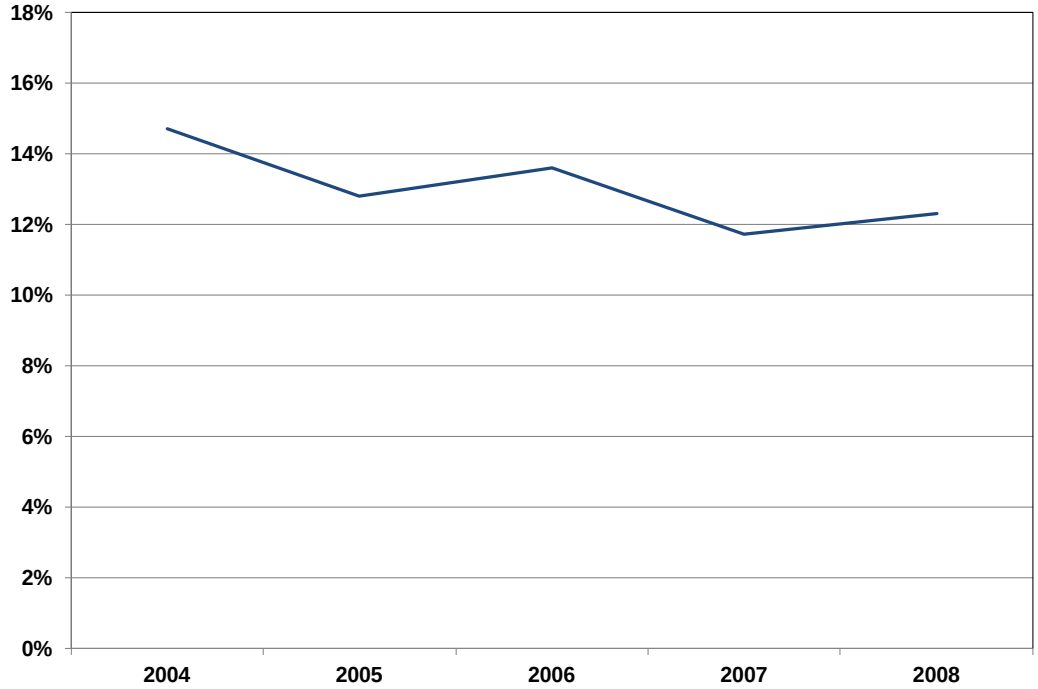
Trend data show a slight decline in the proportion of PRAMS respondents reporting postpartum depression symptoms from 2004-2008.

However, mothers face enormous barriers that stand in the way of treatment, including:

- A lack of awareness of what depression feels like and how to seek help
- Negative attitudes and misconceptions about depression
- Lack of affordable and appropriate treatment[1]

1. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA); Mental Health America. Maternal Depression: making a difference through community action: a planning guide. SAMHSA monograph 2008.

Percentage of Women Who Reported Postpartum Depression Symptoms, 2004–2008



Seeking Help for Postpartum Depression

Percentage of Women Who Reported Postpartum Depression Symptoms and Did Not Seek Help

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**62.9% 5.0**	**8,161**	
Maternal Age			NS
≤ 17	^	^	
18 - 19	**75.1%** ± 16.0%	596	
20 - 24	62.7% ± 9.1%	2,349	
25 - 29	61.5% ± 9.4%	**2,385**	
30 - 34	62.5% ± 11.1%	1,743	
35 - 39	44.4% ± 19.7%	419	
40 +	**^**	^	
Education Level			<.01
Less than High School	**74.6%** ± 6.9%	2,042	
Completed High School	65.3% ± 8.5%	**2,846**	
Some College	46.8% ± 11.7%	1,412	
College Graduate	63.5% ± 12.4%	1,632	
Race			NS
White	62.3% ± 5.3%	**7,307**	
Other than White	**65.3%** ± 17.5%	705	
Hispanic Ethnicity			<.0001
Hispanic	**83.0%** ± 7.6%	2,081	
Non-Hispanic	57.8% ± 5.8%	**5,997**	
Marital Status			NS
Married	**64.7%** ± 5.9%	**6,037**	
Unmarried	58.2% ± 9.0%	2,124	
Birthweight			NS
<2500 grams	59.9% ± 7.8%	694	
2500+ grams	**63.2%** ± 5.4%	**7,453**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

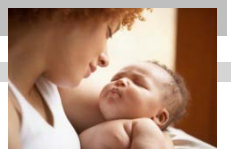
Postpartum depression can last as long as one to two years and may affect the ability of a woman to function in normal daily tasks, including effective care of her infant. Among PRAMS respondents who reported PPD symptoms, 62.9% did not seek help, with higher proportions reported for women younger than 20, with fewer than 12 years of education, or of Hispanic ethnicity.

Because such a high percentage of women do not seek help for their depression symptoms, all health care providers should routinely include PPD discussions during prenatal care and well-baby visits.

Gerald F. Joseph, Jr, MD, president of The American College of Obstetricians and Gynecologists, underscores the importance of health care providers in diagnosing and treating depression: "We may be the first to make a diagnosis of depression or to observe depressive symptoms getting worse. It's especially important to identify depression during pregnancy so that we can help prevent the condition from worsening after delivery." [1]

1. The American College of Obstetricians and Gynecologists. Perinatal and postpartum depression a top priority at annual conference of ob-gyns, Press Release, May 17, 2010.

Seeking Help for Postpartum Depression

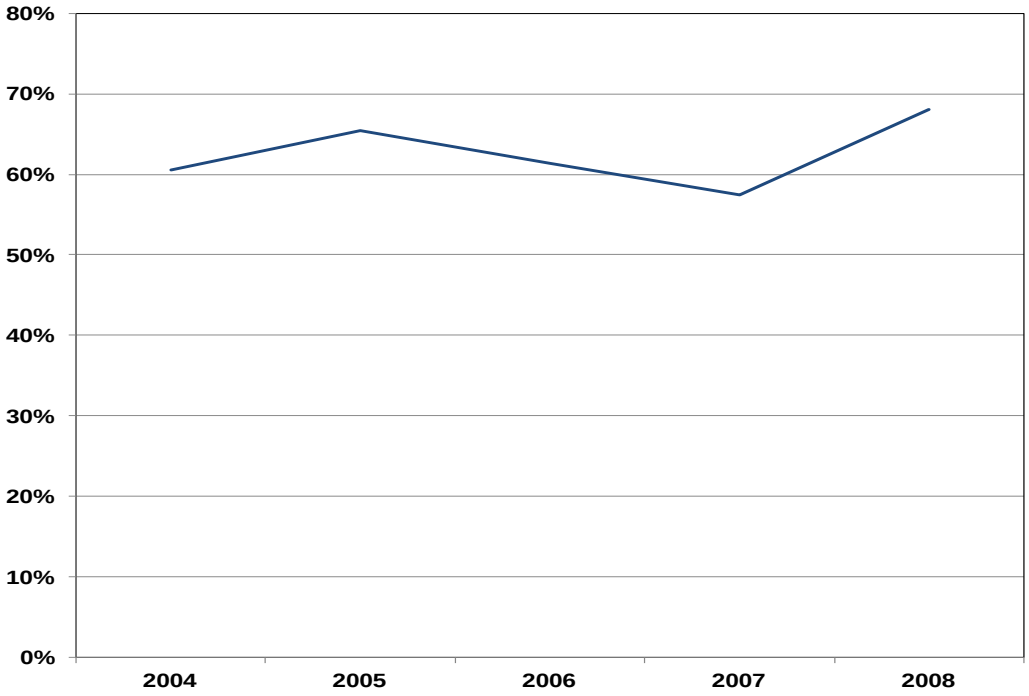


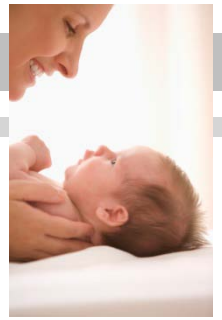
Trend data show an overall increase in the proportion of women who did not seek help for their PPD symptoms during 2004-2008.

Because pregnancy and the postpartum period are pivotal times to identify women suffering from depression, the American College of Obstetricians and Gynecologists encourages practitioners to "strongly consider" screening for it.[2]

2. The American College of Obstetricians and Gynecologists. Screening for Depression During and After Pregnancy. Committee Opinion #453. *Obstetrics & Gynecology* 2010; 115:394-95.

Percentage of Women Who Experienced Postpartum Depression Symptoms and Did Not Seek Help, 2004–2008





Infant Early Hospital Discharge Follow-Up Visit

Survey Question 54 & 64

Percentage of Infants with Early Hospital Discharge** Who Did Not See a Health Care Provider within One Week of Birth

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**22.0% ± 1.7%**	**18,795**	
Maternal Age			NS
≤ 17	24.7% ± 10.5%	327	
18 - 19	16.1% ± 6.4%	631	
20 - 24	19.8% ± 3.3%	4,321	
25 - 29	22.3% ± 3.0%	**6,880**	
30 - 34	23.7% ± 3.8%	4,648	
35 - 39	23.8% ± 6.6%	1,590	
40 +	**31.1%** ± 16.0%	398	
Education Level			NS
Less than High School	20.6% ± 3.3%	2,179	
Completed High School	20.4% ± 3.0%	5,209	
Some College	**23.9%** ± 3.9%	5,228	
College Graduate	22.8% ± 3.4%	**5,901**	
Race			NS
White	21.9% ± 1.8%	**17,681**	
Other than White	**24.1%** ± 8.0%	966	
Hispanic Ethnicity			NS
Hispanic	18.6% ± 3.7%	2,478	
Non-Hispanic	**22.6%** ± 2.0%	**16,206**	
Marital Status			NS
Married	**22.3%** ± 2.0%	**15,647**	
Unmarried	20.6% ± 3.7%	3,148	

NS Not statistically significant

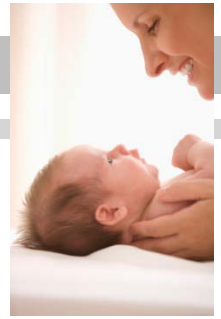
** Less than 24 hours for vaginal delivery or less than 96 hours for a cesarean section

According to the American Academy of Pediatrics, "all healthy, singleton newborns between 38 and 42 weeks' gestation whose birthweight is appropriate for gestational age and who are discharged in fewer than 48 hours must have a follow-up appointment within 48 hours of discharge".[1] This follow-up visit is crucial for assessing feeding patterns, bilirubin levels, and weight. Moreover, newborns who receive early follow-up visits are less likely to be rehospitalized for jaundice or dehydration within the first 10 days of life.

Among PRAMS respondents whose infants had an early hospital discharge, 22% reported their infants did not see a health care provider within one week. There is relatively little variation in the proportion across demographic groups.

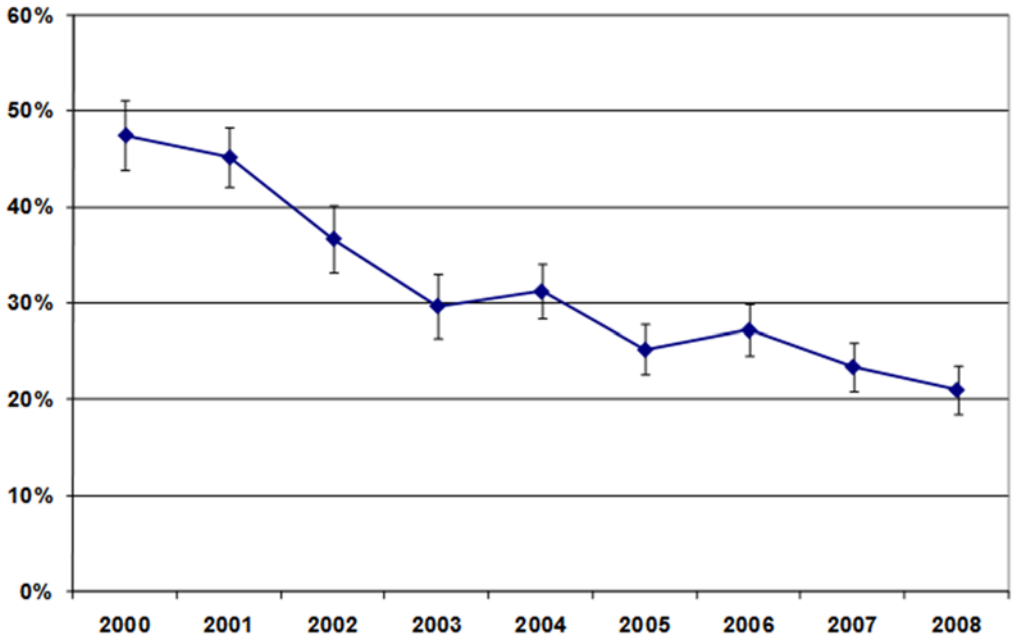
1. Sullivan CK & Cruz-Rivera SD. Healthy newborn discharge. *AAP Textbook of Pediatric Care* 2008; chapter 93.

Infant Early Hospital Discharge Follow-up Visit



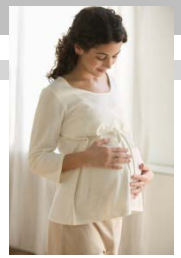
Trend data show an encouraging decline in the percentage of infants who did not see a health care provider within one week of hospital discharge.

Percentage of Infants with Early Hospital Discharge Who Did Not See a Health Care Provider within One Week of Birth 2000–2008



Infant Sleep Position

Survey Question 62



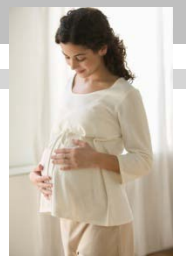
Percentage of Women Who Did Not Place Baby on Back to Sleep

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**21.7% ± 1.5%**	**22,851**	
Maternal Age			<.05
≤ 17	**29.1%** ± 9.1%	533	
18 - 19	25.2% ± 6.5%	1,322	
20 - 24	18.6% ± 2.7%	5,007	
25 - 29	22.8% ± 2.6%	**8,684**	
30 - 34	22.9% ± 3.3%	5,337	
35 - 39	17.8% ± 4.8%	1,463	
40 +	28.6% ± 12.5%	505	
Education Level			<.0001
Less than High School	**36.8%** ± 3.4%	5,209	
Completed High School	22.5% ± 2.7%	**7,118**	
Some College	19.0% ± 3.1%	5,188	
College Graduate	16.1% ± 2.7%	4,900	
Race			<.05
White	21.3% ± 1.5%	**21,142**	
Other than White	**29.8%** ± 7.5%	1,519	
Hispanic Ethnicity			<.0001
Hispanic	**34.7%** ± 3.7%	6,033	
Non-Hispanic	19.1% ± 1.6%	**16,726**	
Marital Status			<.001
Married	20.5% ± 1.6%	**17,492**	
Unmarried	**26.9%** ± 3.4%	5,359	
Birthweight			<.01
<2500 grams	**26.4%** ± 3.1%	1,521	
2500+ grams	21.4% ± 1.6%	**21,323**	

Healthy People 2010 calls for 70% of full term infants to be put to sleep on their backs, and PRAMS data have been used to track this indicator. Utah has achieved this goal annually since 2000, with 78.3% of infants back sleeping. However, several groups have significantly lower rates of back sleeping, including infants with mothers younger than 20 or older than 40, with fewer than 12 years of education, or of other than white race or Hispanic ethnicity.

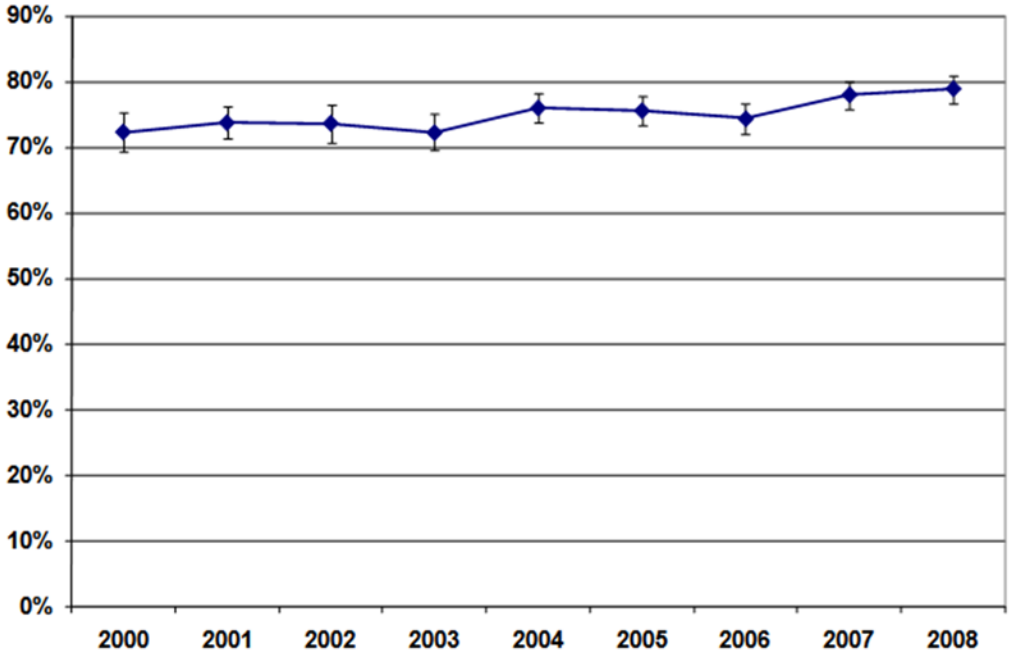
These disparities suggest health care workers should be persistent and consistent about talking to mothers about safe sleeping for their infants.

Infant Sleep Position



Although trend data show an increase in the percentage of Utah infants put to sleep on their backs, health care workers should discuss all elements of safe infant sleeping with mothers of new babies.

Percentage of Women Who Lay Baby on Back to Sleep, 2000–2008



"I think mothers & fathers to new babies should have a short parenting class on how to deal with a fussy, crying baby - so you won't ever cause physical harm. We are trained for months to drive, but have little or no help or resources for being a good parent."
~A PRAMS Mom

Infant Bed Sharing

Percentage of Women Who Reported Their Baby Always or Often Slept in the Same Bed with Someone Else

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**24.5% ± 1.6%**	**25,747**	
Maternal Age			<.01
≤ 17	**34.0%** ± 9.6%	629	
18 - 19	28.8% ± 6.8%	1,521	
20 - 24	25.9% ± 3.1%	6,960	
25 - 29	24.6% ± 2.7%	**9,343**	
30 - 34	19.4% ± 3.1%	4,532	
35 - 39	26.9% ± 6.0%	2,197	
40 +	32.1% ± 13.2%	566	
Education Level			<.0001
Less than High School	**42.2%** ± 3.5%	5,958	
Completed High School	25.3% ± 2.9%	**8,023**	
Some College	24.8% ± 3.5%	6,766	
College Graduate	14.9% ± 2.7%	4,523	
Race			<.01
White	23.7% ± 1.6%	**23,520**	
Other than White	**37.0%** ± 8.0%	1,891	
Hispanic Ethnicity			<.0001
Hispanic	**40.0%** ± 3.9%	6,868	
Non-Hispanic	21.4% ± 1.7%	**18,700**	
Marital Status			<.0001
Married	21.1% ± 1.7%	**18,002**	
Unmarried	**38.8%** ± 3.9%	7,745	
Birthweight			NS
<2500 grams	22.8% ± 2.9%	1,312	
2500+ grams	**24.6%** ± 1.6%	**24,421**	

NS Not statistically significant

The AAP recommends room-sharing without bed-sharing for infants because the AAP does not consider any bed-sharing situation safe. Epidemiologic studies demonstrate that several bed-sharing situations substantially increase the risk of SIDS or suffocation, including adults bed-sharing with infants younger than three months, as well as infants bed-sharing with a smoker, someone who is excessively tired, who is using medications or substances that impair alertness, or with more than one person.

Nearly 25% of Utah PRAMS respondents reported that their infants always or often slept in the same bed with someone else. Higher proportions of bed sharing were reported by women younger than 20 or older than 40, unmarried, with fewer than 12 years of education, or of other than white race.

Infant Bed Sharing Frequency

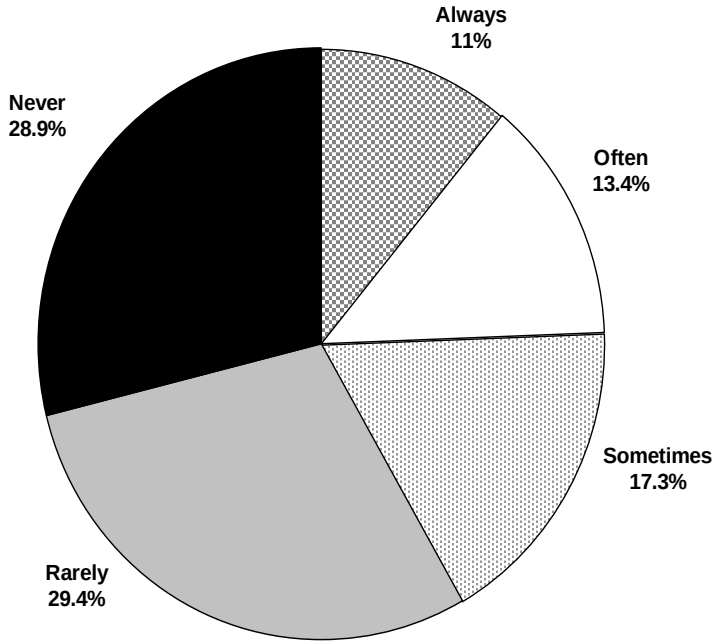
Only 28.9% of PRAMS respondents reported that their infants never shared a bed with someone else, and another 29.4% indicated that their infants rarely slept in bed with someone else.

Despite a major decrease in the incidence of sudden infant death syndrome (SIDS) since the AAP released its recommendation in 1992 that infants be placed for sleep in a nonprone position, nationally this decline has plateaued in recent years. At the same time, other causes of sudden infant death that occur during sleep, including suffocation, asphyxia, and entrapment, and ill-defined or unspecified causes of death, have increased in incidence.[1]

Health care providers should become familiar with the APP policy statement titled "SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment" and educate parents about the recommendations.[1]

1. Task Force on Sudden Infant Death Syndrome. Policy Statement: SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment. *Pediatrics* 2011;128 (5): 1030-1039.

Infant Bed Sharing Frequency, 2004–2008



Alcohol Use Three Months Before Pregnancy

Survey Question 43a

Percentage of Women Who Drank Alcohol During the Three Months Before Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**22.8% ± 1.5%**	**24,174**	
Maternal Age			<.0001
≤ 17	23.2% ± 8.1%	457	
18 - 19	**36.2%** ± 7.1%	1,934	
20 - 24	29.2% ± 3.2%	**8,015**	
25 - 29	18.9% ± 2.4%	7,172	
30 - 34	17.3% ± 3.0%	3,991	
35 - 39	27.6% ± 6.2%	2,278	
40 +	18.9% ± 11.0%	326	
Education Level			<.0001
Less than High School	27.3% ± 3.1%	3,906	
Completed High School	**34.7%** ± 3.1%	**10,957**	
Some College	18.3% ± 3.1%	5,007	
College Graduate	12.5% ± 2.5%	3,815	
Race			NS
White	22.6% ± 1.5%	**22,499**	
Other than White	**24.8%** ± 7.0%	1,300	
Hispanic Ethnicity			<.01
Hispanic	18.2% ± 3.3%	3,104	
Non-Hispanic	**23.6%** ± 1.7%	**20,813**	
Marital Status			<.0001
Married	17.5% ± 1.5%	**14,891**	
Unmarried	**45.0%** ± 3.9%	9,282	
Birthweight			<.05
<2500 grams	**26.5%** ± 3.0%	1,641	
2500+ grams	22.6% ± 1.6%	**22,519**	

NS Not statistically significant

Ascertaining the true prevalence and extent of alcohol consumption during pregnancy is a difficult task. Under-reporting of alcohol consumption is common and women often report alcohol use beginning when they learned they were pregnant. [1]

In order to obtain a more accurate measure of alcohol use in early pregnancy, Utah PRAMS asks women about alcohol use before pregnancy. Among Utah PRAMS respondents, 22.8% reported alcohol consumption during the three months before pregnancy. The proportion was significantly higher among women younger than 20 years of age, or with 12 or fewer years of education, and who were unmarried.

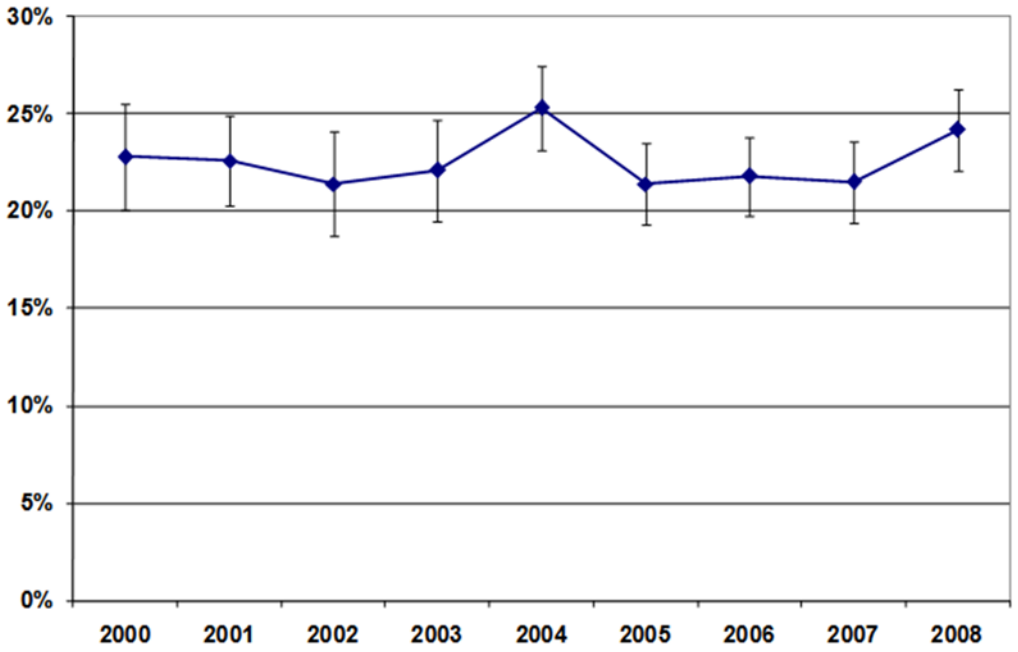
1. Mullally et al. Prevalence, predictors, and perinatal outcomes of peri-conceptional alcohol exposure-retrospective cohort study in an urban obstetric population in Ireland. *BMC Pregnancy and Childbirth*, 2011; 11:27

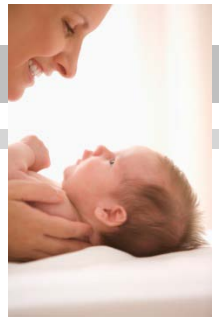
Alcohol Use Three Months Before Pregnancy

Trend data show little variation in alcohol use among Utah women from 2000–2008.

Alcohol use, especially binge drinking, is associated with unplanned pregnancies, thus underscoring the importance of health before pregnancy and development of individual reproductive life plans.

Percentage of Women Who Drank Alcohol During the Three Months Before Pregnancy, 2000–2008





Alcohol Use the Last Three Months of Pregnancy

Survey Question 44a

Percentage of Women Who Drank Alcohol During the Last Three Months of Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**4.0% ± 0.7%**	**4,255**	
Maternal Age			<.05
≤ 17	^	^	
18 - 19	4.5*% ± 3.1%	243*	
20 - 24	3.1% ± 1.2%	866	
25 - 29	2.9% ± 1.0%	**1,097**	
30 - 34	4.2% ± 1.6%	986	
35 - 39	**11.6%** ± 4.4%	949	
40 +	^	^	
Education Level			NS
Less than High School	4.5% ± 1.5%	655	
Completed High School	**4.7%** ± 1.4%	**1,478**	
Some College	3.0% ± 1.3%	815	
College Graduate	3.9% ± 1.5%	1,196	
Race			NS
White	3.8% ± 0.7%	**3,799**	
Other than White	**8.0%** ± 4.4%	419	
Hispanic Ethnicity			NS
Hispanic	**5.1%** ± 1.9%	869	
Non-Hispanic	3.8% ± 0.8%	**3,349**	
Marital Status			<.0001
Married	3.1% ± 0.7%	**2,635**	
Unmarried	**7.8%** ± 2.1%	1,619	
Birthweight			NS
<2500 grams	**4.1%** ± 1.4%	257	
2500+ grams	4.0% ± 0.8%	**3,997**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Maternal alcohol use is the leading known cause of intellectual disabilities and is related to birth defects. Drinking during pregnancy is also associated with growth deficiencies, facial deformities, central nervous system impairment, and behavioral disorders. Furthermore, ACOG cautions that there is no amount of alcohol that can be considered safe during pregnancy.[1]

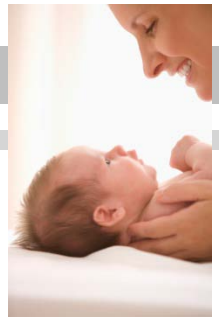
In addition to its association with intellectual disabilities and birth defects, alcohol consumption during pregnancy also increases the risk of miscarriage, stillbirth, and low birthweight, especially among heavy drinkers.[1, 2]

Healthy People 2010 calls for alcohol abstinence for 94% of pregnant women and the complete elimination of binge drinking among pregnant women. PRAMS data show that Utah meets the overall alcohol target with 96% of women reporting that they did not drink during the last three months of pregnancy.

Women who were older than 35, other than white, and unmarried were more likely to report alcohol use.

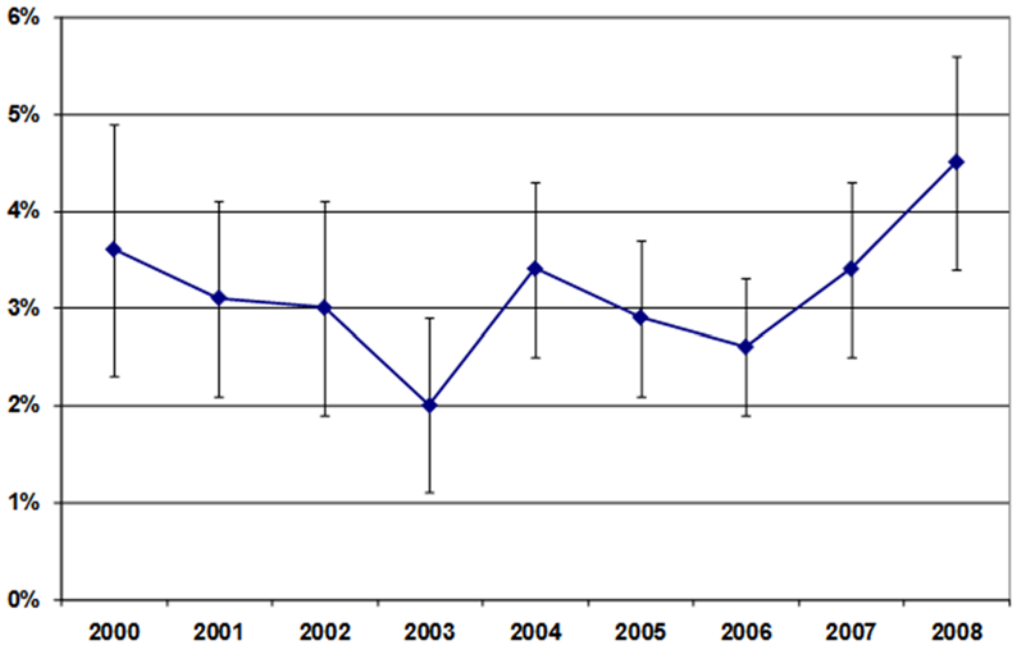
1. ACOG 2008. Alcohol and pregnancy: know the facts. News Release, February 6, 2008.
2. Mullally et al. Prevalence, predictors, and perinatal outcomes of peri-conceptional alcohol exposure-retrospective cohort study in an urban obstetric population in Ireland. *BMC Pregnancy and Childbirth*, 2011; 11:27

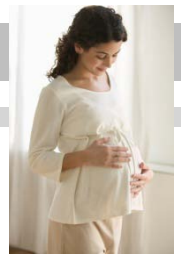
Alcohol Use the Last Three Months of Pregnancy



Of the 4.0% of women who reported alcohol consumption during the last trimester of their pregnancy, most said they drank fewer than three drinks per week. However, the increase in alcohol use among pregnant women since 2006 may indicate the need for ongoing campaigns that target these groups who are more at risk to remind them of the dangers of alcohol use during pregnancy.

Percentage of Women Who Drank During the Last Three Months of Pregnancy, 2000–2008





Alcohol Discussion By Health Care Provider

Survey Question 29a

Percentage of Women Whose Health Care Provider Did Not Ask How Much Alcohol They Were Drinking

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**42.7% ±1.8%**	**45,085**	
Maternal Age			NS
≤ 17	48.6% ± 9.9%	896	
18 - 19	39.0% ± 7.2%	2,071	
20 - 24	40.2% ± 3.5%	10,977	
25 - 29	43.1% ± 3.1%	**16,394**	
30 - 34	43.2% ± 4.0%	10,010	
35 - 39	**49.3%** ± 6.8%	4,013	
40 +	40.8% ± 14.2%	725	
Education Level			<.01
Less than High School	36.7% ± 3.4%	5,216	
Completed High School	42.8% ± 3.2%	13,512	
Some College	43.2% ± 3.9%	11,836	
College Graduate	**44.9%** ± 3.7%	**13,642**	
Race			NS
White	42.4% ± 1.9%	**42,264**	
Other than White	**49.2%** ± 8.3%	2,498	
Hispanic Ethnicity			<.01
Hispanic	37.4% ± 4.1%	6,325	
Non-Hispanic	**43.8%** ± 2.1%	**38,575**	
Marital Status			<.01
Married	**44.0%** ± 2.1%	**37,482**	
Unmarried	37.4% ± 3.8%	7,603	
Birth Weight			<.05
<2500 grams	38.5% ± 3.3%	2,403	
2500+ grams	**43.0%** ± 1.9%	**42,662**	

NS Not statistically significant

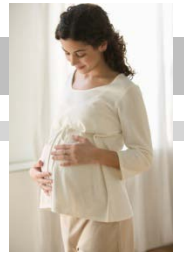
According to a 2011 ACOG Committee Opinion, at-risk alcohol use for women—defined as consuming more than seven drinks per week, more than three drinks per occasion (binge drinking), or any amount of alcohol among those who are pregnant or at risk of pregnancy—is on the rise.[1] In response, ACOG recommends that all women seeking obstetric-gynecologic care be "screened for alcohol use at least yearly and within the first trimester of pregnancy." [2]

The Committee Opinion includes two brief, effective screening tools that help identify at-risk drinking (TACE and Alcohol Quantity and Drinking Frequency Questions), and offers suggestions for brief, motivation-enhancing interventions.[2]

Among Utah PRAMS respondents, 42.7% reported that their health care provider did not ask about alcohol consumption, with higher percentages reported among women who were older, college graduates, and other than white race.

1. ACOG 2011. Well woman prenatal visits should include alcohol abuse screening. Press Release, July 20, 2011.
2. ACOG Committee Opinion No. 496. At-Risk Drinking and Alcohol Dependence: Obstetric and Gynecologic Implications. Obstet Gynecol 2011; Aug; 109: 1-6.

Alcohol Discussion By Health Care Provider

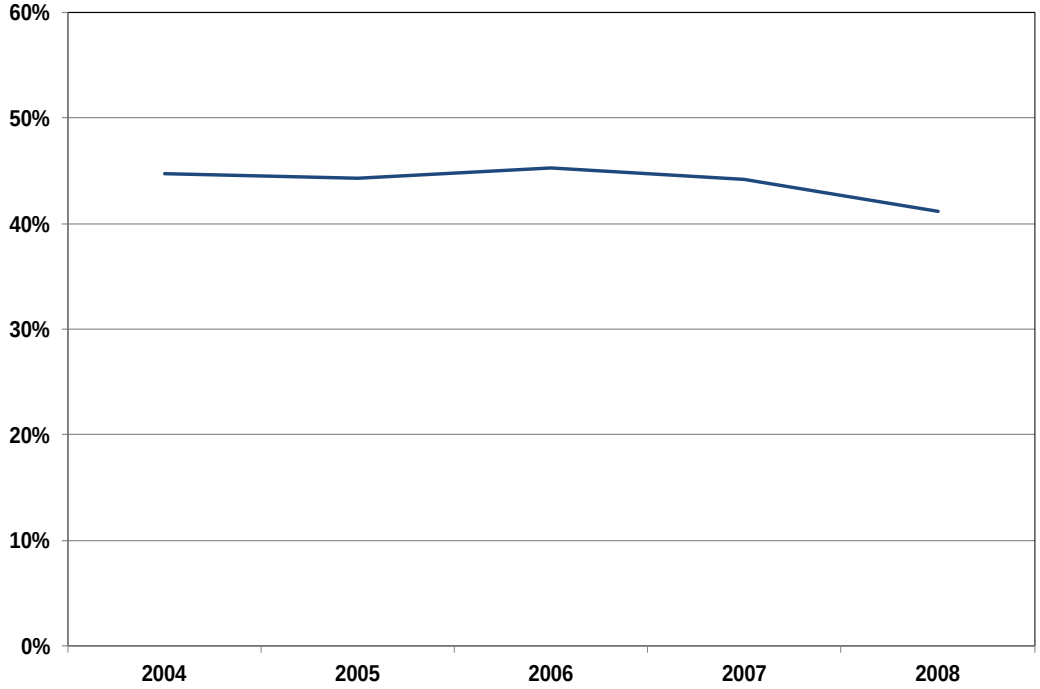


Trend data from 2004-2008 show a slight decrease in the percentage of women who reported that they were not asked about alcohol consumption by a health care worker.

Because pregnant women are high information seekers who are motivated to change their behaviors, health care professionals have a uniquely responsible role in identifying women who drink at unhealthy levels, encouraging healthy behaviors through brief intervention and education, and referring alcohol-dependent patients for treatment.[1,2]

1. ACOG 2011. Well woman prenatal visits should include alcohol abuse screening. Press Release, July 20, 2011.
2. ACOG Committee Opinion No. 496. At-Risk Drinking and Alcohol Dependence: Obstetric and Gynecologic Implications. Obstet Gynecol 2011; Aug; 109: 1-6.

Percentage of Women Whose Health Care Provider Did Not Ask How Much Alcohol They Were Drinking, 2004–2008



Smoking Three Months Before Pregnancy

Percentage of Women Who Smoked During the Three Months Before Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**10.5% ± 1.0%**	**11,215**	
Maternal Age			<.0001
≤ 17	17.3% ± 7.2%	343	
18 - 19	**20.7%** ± 5.8%	1,114	
20 - 24	16.2% ± 2.6%	**4,474**	
25 - 29	7.7% ± 1.5%	2,963	
30 - 34	7.2% ± 2.0%	1,676	
35 - 39	6.3% ± 3.1%	527	
40 +	^	^	
Education Level			<.0001
Less than High School	**21.0%** ± 2.8%	3,048	
Completed High School	18.3% ± 2.6%	**5,847**	
Some College	6.2% ± 1.9%	1,726	
College Graduate	1.4%* ± 0.9%	437*	
Race			NS
White	10.4% ± 1.1%	**10,472**	
Other than White	**12.1%** ± 5.0%	635	
Hispanic Ethnicity			<.01
Hispanic	7.3% ± 2.1%	1,264	
Non-Hispanic	**11.1%** ± 1.2%	**9,861**	
Marital Status			<.0001
Married	5.8% ± 0.9%	4,937	
Unmarried	**30.1%** ± 3.6%	**6,278**	
Birthweight			<.0001
<2500 grams	**16.6%** ± 2.5%	1,033	
2500+ grams	10.1% ± 1.1%	**10,182**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

Tobacco use adversely affects every organ system, yet this modifiable behavior is the most prevalent cause of premature death for adults in the US.[1] Adverse pregnancy outcomes associated with smoking include intrauterine growth restriction, placenta previa, preterm premature rupture of membranes, abruptio placentae, low birthweight, ectopic pregnancy, and perinatal mortality.[2]

In addition, children born to mothers who smoke during pregnancy face an increased risk of colic, asthma, and childhood obesity.[2]

The Healthy People 2010 target for women who deliver a live birth and abstain from smoking cigarettes during pregnancy is 99%. Because many women report their first trimester behaviors as beginning when they knew they were pregnant, Utah PRAMS asks women about their smoking habits during the three months before pregnancy. Utah does not meet this goal, with only 89.5% of women reporting that they did not smoke during the three months before pregnancy.

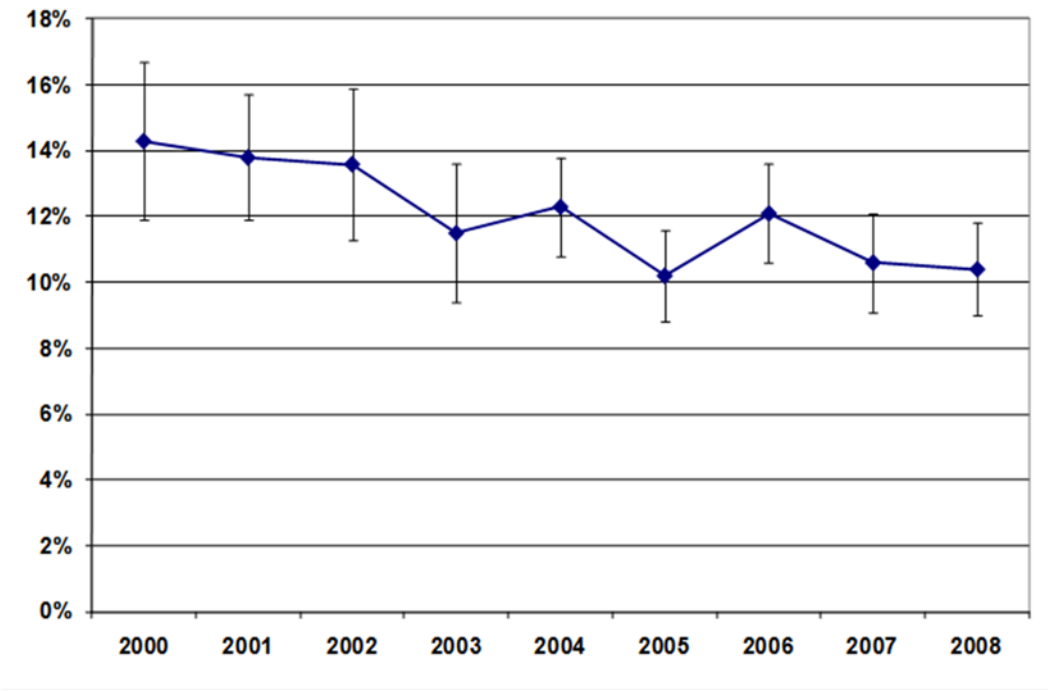
1. ACOG Committee Opinion No. 503. Tobacco Use and Women's Health. 2011 Sept; 1-5.
2. ACOG Committee Opinion No. 471: Smoking Cessation During Pregnancy. Obstet Gynecol 2011 Nov: 1-4

Smoking Three Months Before Pregnancy

Trend data from 2000–2008 show a decline in the percentage of women who smoked during the three months before pregnancy. The highest rates of smoking were found among women under 25 years of age, with 12 or fewer years of education, who were unmarried, or who delivered a low-birthweight infant.

"I quit smoking the day I found out I was pregnant. And I have stayed quit for almost 10 months now. I hope everyone understands how harmful it is to your baby when you smoke while pregnant. And I hope they will not do it while pregnant."
~A PRAMS Mom

Percentage of Women Who Smoked During the Three Months Before Pregnancy, 2000–2008



Smoking the Last Three Months of Pregnancy

Percentage of Women Who Smoked During the Last Three Months of Pregnancy

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**5.2% ± 0.7%**	**5,576**	
Maternal Age			<.001
≤ 17	8.1% ± 5.2%	163	
18 - 19	8.2% ± 3.8%	440	
20 - 24	**8.3%** ± 1.9%	**2,294**	
25 - 29	3.9% ± 1.1%	1,514	
30 - 34	3.5% ± 1.4%	822	
35 - 39	3.6% ± 2.1%	300	
40 +	^	^	
Education Level			<.0001
Less than High School	**13.5%** ± 2.4%	1,961	
Completed High School	8.2% ± 1.8%	**2,606**	
Some College	3.0% ± 1.3%	822	
College Graduate	^	^	
Race			NS
White	5.2% ± 0.8%	**5,233**	
Other than White	**5.4%*** ± 3.3%	281*	
Hispanic Ethnicity			<.05
Hispanic	3.6% ± 1.5%	626	
Non-Hispanic	**5.5%** ± 0.8%	**4,888**	
Marital Status			<.0001
Married	2.7% ± 0.6%	2,349	
Unmarried	**15.4%** ± 2.8%	**3,227**	
Birthweight			<.0001
<2500 grams	**10.0%** ± 2.0%	619	
2500+ grams	4.9% ± 0.8%	**4,957**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

PRAMS data show that more than half of women who reported smoking before pregnancy stopped smoking during pregnancy. While 10.5% of women said they smoked during the three months before pregnancy, only 5.2% of PRAMS respondents reported smoking during the last three months of pregnancy. Of these smokers, 63% reported smoking fewer cigarettes than they smoked before pregnancy.

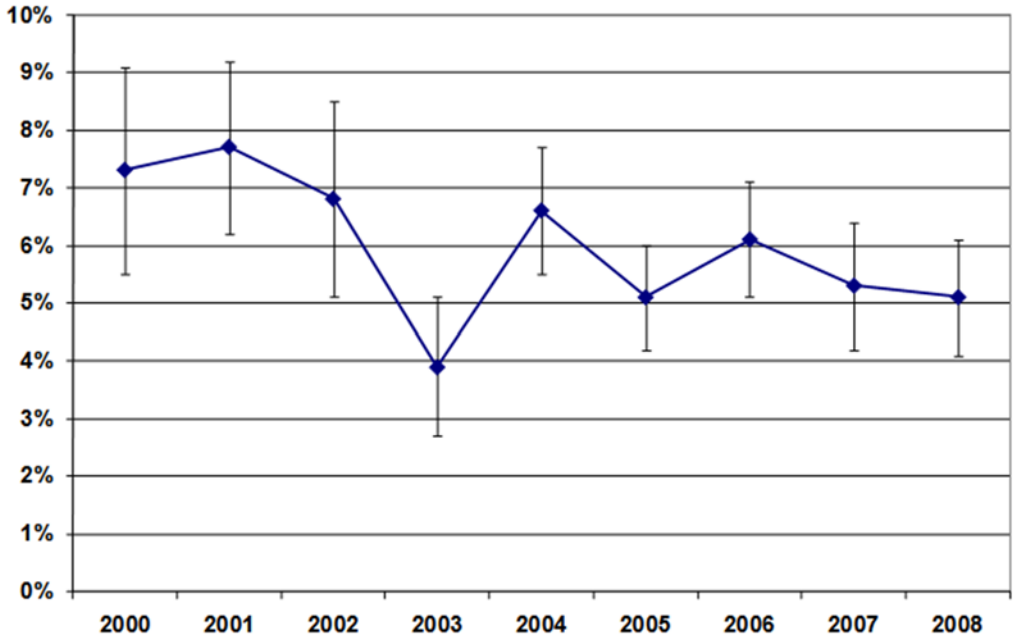
Women younger than 25 with a high school education or less, those who were unmarried, or those who delivered a low birthweight infant were most likely to report smoking during the last three months of pregnancy.

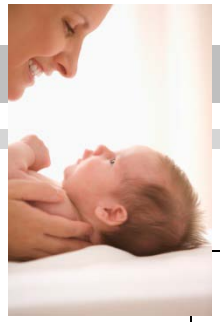
Smoking the Last Three Months of Pregnancy

Trend data from 2000–2008 show an overall decline in the percentage of women who smoked during the last months of pregnancy.

Utah PRAMS data show that women who smoked during their last trimester were more than twice as likely to report not breastfeeding as were women who did not smoke.

Percentage of Women Who Smoked During the Last Three Months of Pregnancy, 2000-2008





Smoking Postpartum

Percentage of Women Who Smoked Postpartum

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**7.3% ± 0.9%**	**7,812**	
Maternal Age			<.0001
≤ 17	15.5% ± 6.9%	310	
18 - 19	**14.1%** ± 4.8%	760	
20 - 24	12.0% ± 2.2%	**3,297**	
25 - 29	5.5% ± 1.3%	2,119	
30 - 34	3.4% ± 1.3%	789	
35 - 39	5.0% ± 2.7%	420	
40 +	^	^	
Education Level			<.0001
Less than High School	**17.9%** ± 2.7%	2,600	
Completed High School	12.2% ± 2.2%	**3,884**	
Some College	3.6% ± 1.5%	995	
College Graduate	0.8%* ± 0.7%	231*	
Race			NS
White	7.2% ± 0.9%	**7,240**	
Other than White	**9.6%** ± 4.5%	503	
Hispanic Ethnicity			<.01
Hispanic	5.0% ± 1.7%	870	
Non-Hispanic	**7.8%** ± 1.0%	**6,891**	
Marital Status			<.0001
Married	3.9% ± 0.7%	3,372	
Unmarried	**21.2%** ± 3.2%	**4,440**	
Birthweight			<.0001
<2500 grams	**12.5%** ± 2.3%	775	
2500+ grams	7.0% ± 0.9%	**7,037**	

NS Not statistically significant

^ The estimate has been suppressed because the relative standard error is greater than 50% or the observed number of events is very small and not appropriate for publication.

* Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.

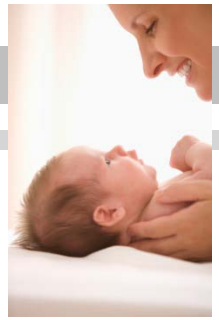
Addiction to tobacco is both physiologic and psychologic. Most smokers struggle with permanent cessation when they decide to quit.[1] The negative health effects of smoking affect not just the smoker but family, friends and other individuals in their proximity. Infants exposed to secondhand smoke have a higher risk for respiratory tract infections and sudden infant death syndrome.[2]

Utah PRAMS data show that only 32% of women who smoked prior to pregnancy maintained cessation at the time of the survey (approximately three months postpartum).

Overall, 7.3% of PRAMS respondents reported smoking at the time of the survey, with higher percentages for women who were younger than 25, unmarried, had 12 or fewer years of education, or had delivered a low birthweight infant.

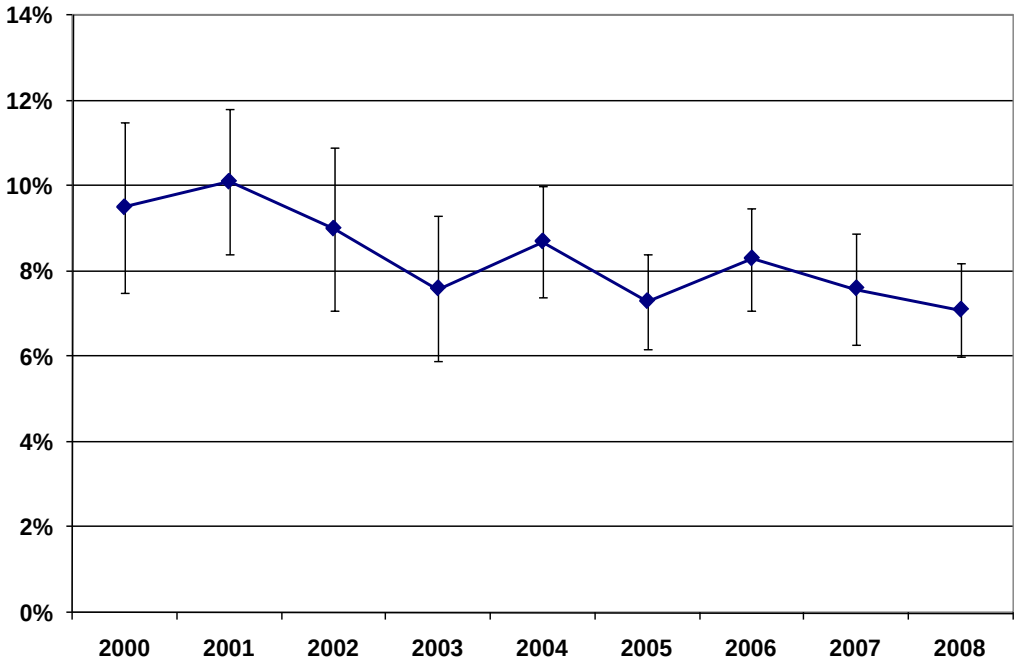
1. ACOG Committee Opinion No. 471. Smoking Cessation During Pregnancy. Obstet Gynecol 2011 Nov: 1-4.
2. Tong VT, Jones JR, Dietz PM, D'Angelo D, Bombard JM. Trends in smoking before, during, and after pregnancy. Pregnancy Risk Assessment Monitoring System (PRAMS), United States, 31 sites, 2000-2005. Centers for Disease Control and Prevention (CDC). MMWR Surveillance Summary 2009; 58: 1-29.

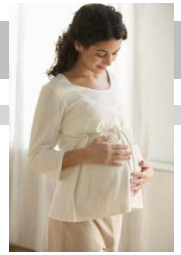
Smoking Postpartum



Although Utah enjoys lower statewide smoking rates than the rest of the US, tobacco use remains a considerable public health concern since the adverse health outcomes associated with smoking are preventable. Trend data show an overall decrease in the percentage of women who smoked postpartum from 2000-2008.

Percentage of Women Who Smoked Postpartum, 2000–2008





Smoking Discussion With Health Care Provider

Survey Question 29f

Percentage of Women Who Reported Their Health Care Provider Did Not Ask if They Were Smoking

Characteristics	Percent (95% Confidence Interval)	Population Estimate	P-Value
Total Birth Population	**30.3% ±1.7%**	**32,015**	
Maternal Age			<.0001
≤ 17	17.8% ± 7.7%	328	
18 - 19	14.7% ± 5.0%	779	
20 - 24	24.1% ± 3.1%	6,571	
25 - 29	32.8% ± 3.0%	**12,438**	
30 - 34	35.0% ± 3.9%	8,164	
35 - 39	37.9% ± 6.6%	3,160	
40 +	**32.1%** ± 13.4%	576	
Education Level			<.0001
Less than High School	17.7% ± 2.7%	2,523	
Completed High School	27.7% ± 2.9%	8,739	
Some College	33.1% ± 3.7%	9,098	
College Graduate	**36.5%** ± 3.6%	**11,134**	
Race			NS
White	**30.6%** ± 1.8%	**30,503**	
Other than White	26.6% ± 7.4%	1,353	
Hispanic Ethnicity			<.0001
Hispanic	21.4% ± 3.5%	3,658	
Non-Hispanic	**32.1%** ± 1.9%	**28,285**	
Marital Status			<.0001
Married	**33.2%** ± 2.0%	**28,404**	
Unmarried	17.8% ± 3.1%	3,612	
Birthweight			<.01
<2500 grams	25.1% ± 2.8%	1,569	
2500+ grams	**30.6%** ± 1.8%	**30,426**	

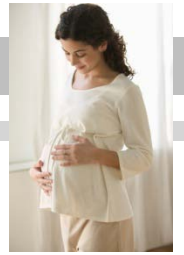
NS Not statistically signficant

The American College of Obstetricians and Gynecologists notes that patients who are willing to try to quit smoking can benefit from a brief counseling session at any preconception, prenatal, or postpartum visit. Health care providers are encouraged to **ask** about smoking status, **advise** smoking women to quit, **assess** willingness to quit, **assist** cessation efforts by providing cessation materials and encouragement, and **arrange** follow-up visits to track the progress of the patient's attempt to quit smoking (the 5A approach).[1]

In Utah, 30.3% of PRAMS respondents reported that their health care providers did not ask if they were smoking. Women who were 35 or older, had at least some college education, or married were more likely to be asked if they were smoking.

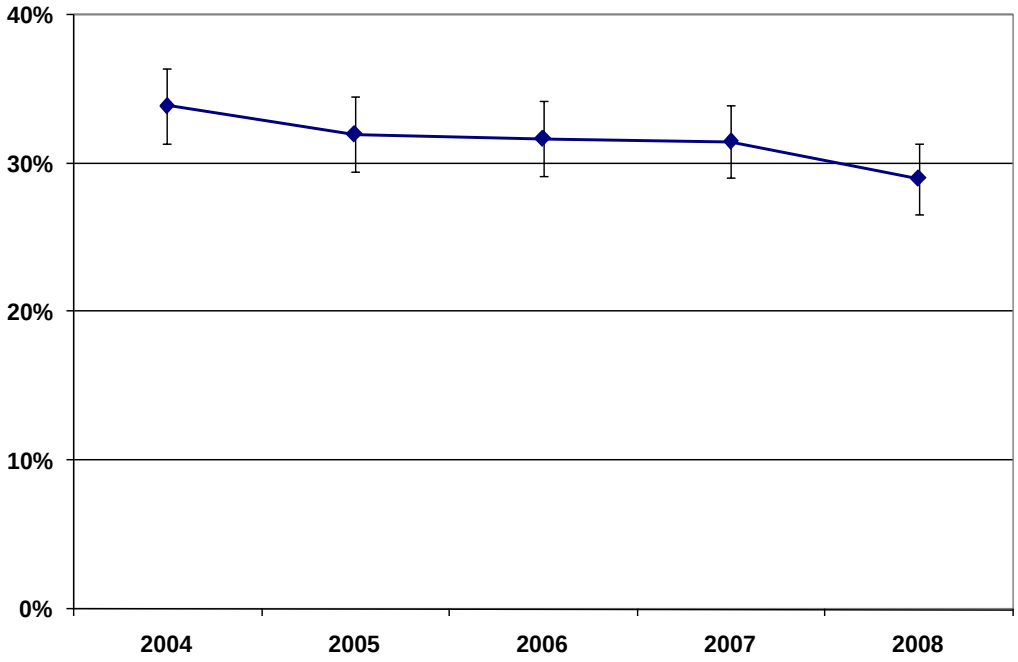
1. ACOG Committee Opinion No. 471. Smoking Cessation During Pregnancy. Obstet Gynecol 2011 Nov: 1-4

Smoking Discussion With Health Care Provider



Trend data show a decrease in the percentage of women who report that they were not asked about their smoking status.

Percentage of Women Who Reported Their Health Care Provider Did Not Ask if They Were Smoking Cigarettes During Any Prenatal Care Visits, 2004–2008



Appendix A: Utah PRAMS Phase V Questionnaire

PREGNANCY RISK ASSESSMENT MONITORING SYSTEM (PRAMS)
UTAH Phase V QUESTIONNAIRE

First, we would like to ask a few questions about you and the time before you got pregnant with your new baby. Please check the box next to your answer.

1. *Just before* you got pregnant, did you have health insurance? Do not count Medicaid.

   ☐ No
   ☐ Yes

2. *Just before* you got pregnant, were you on Medicaid?

   ☐ No
   ☐ Yes

3. During the *month before* you got pregnant with your new baby, how many times a week did you take a multivitamin or a prenatal vitamin? These are pills that contain many different vitamins and minerals.

   ☐ I didn't take a multivitamin or a prenatal vitamin at all
   ☐ 1 to 3 times a week
   ☐ 4 to 6 times a week
   ☐ Every day of the week

4. What is *your* date of birth?

   _____ _____ _____
   Mont Day Year

5. *Just before* you got pregnant with your new baby, how much did you weigh?

   _____Pounds **OR** _____Kilos

6. How tall are you without shoes?

   _____ Feet _____Inches **OR**_____Centimeters

7. *Before* you got pregnant with your new baby, did you talk with a doctor, nurse, or other health care worker to prepare for a healthy pregnancy and baby?

   ☐ No
   ☐ Yes

8. *Before* you got pregnant with your new baby, did you ever have any other babies who were born alive?

   ☐ No ⟶ **Go to Question 11**
   ☐ Yes

9. Did the baby born *just before* your new one weigh 5 pounds, 8 ounces (2.5 kilos) *or less* at birth?

   ☐ No
   ☐ Yes

10. Was the baby *just before* your new one born *more* than 3 weeks before its due date?

    ☐ No
    ☐ Yes

The next questions are about the time when you got pregnant with your *new* baby.

11. Thinking back to *just before* you got pregnant with your *new* baby, how did you feel about becoming pregnant? Check <u>one</u> answer

    ☐ 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

If you wanted to be pregnant later, please answer question 12. Otherwise, please go to question 13.

12. How much later did you want to become pregnant?

- ☐ Less than 1 year
- ☐ 1 year to less than 2 years
- ☐ 2 years to less than 3 years
- ☐ 3 years to less than 4 years
- ☐ 4 years or more

13. When you got pregnant with your new baby, were you trying to get pregnant?

- ☐ No
- ☐ Yes ⟶ **Go to Question 17**

14. When you got pregnant with your new baby, were you or your husband or partner doing anything to keep from getting pregnant? (Some things people do to keep from getting pregnant include not having sex at certain times [rhythm] or withdrawal, and using birth control methods such as the pill, condoms, cervical ring, IUD, having their tubes tied, or their partner having a vasectomy.)

- ☐ No
- ☐ Yes ⟶ **Go to Question 16**

15. What were your or your husband's or partner's reasons for not doing anything to keep from getting pregnant? Check <u>all</u> that apply.

- ☐ I didn't mind if I got pregnant
- ☐ I thought I could not get pregnant at that time
- ☐ I had side effects from the birth control method I was using
- ☐ I had problems getting birth control when I needed it
- ☐ I thought my husband or partner or I was sterile (could not get pregnant)
- ☐ My husband or partner didn't want to use anything
- ☐ Other ⟶ Please tell us: _____

If you or your husband or partner were not doing anything to keep from getting pregnant, go to Question 20.

16. When you got pregnant with your new baby, what were you or your husband or partner doing to keep from getting pregnant? Check all that apply.

- ☐ Tubes tied or closed (female sterilization)
- ☐ Vasectomy (male sterilization)
- ☐ Pill
- ☐ Condoms
- ☐ Shot once a month (Lunelle)
- ☐ Shot once every 3 months (Depo-Provera)
- ☐ Contraceptive patch (Orthoevra)
- ☐ Diaphragm, cervical cap, or sponge
- ☐ Cervical ring (Nuvaring or others)
- ☐ IUD (including Mirena)
- ☐ Rhythm method or natural family planning
- ☐ Withdrawal (pulling out)
- ☐ Not having sex (abstinence)
- ☐ Other ⟶ Please tell us:_____

If you were not trying to get pregnant when you got pregnant with your new baby, go to Question 20.

17. Did you receive treatment from a doctor, nurse or other health care worker to help you get pregnant with your new baby? (This may include infertility treatments such as fertility-enhancing drugs or assisted reproductive technology).

- ☐ No ⟶ **Go to Question 19**
- ☐ Yes

18. Did you use any of the following treatments *during the month you got pregnant* with your new baby? Please check all that apply.

- ☐ Fertility-enhancing drugs prescribed by a doctor (Fertility drugs include Clomid®, Serophene®, Pergonal®, or other drugs that stimulate ovulation.)
- ☐ Artificial insemination or intrauterine insemination (treatments in which sperm, but NOT eggs were collected and medically placed into a woman's body)
- ☐ Assisted reproductive technology (treatments in which BOTH a woman's eggs and a man's sperm were handled the laboratory; e.g., in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT), zygote intrafallopian transfer (ZIFT), intracytoplasmic sperm injection (ICSI) frozen embryo transfer, donor embryo transfer)
- ☐ Other medical treatment ⟶ Please tell us:_____

19. How many months had you been trying to get pregnant?

- ☐ 0 to 3 months
- ☐ 4 to 6 months
- ☐ 7 to 12 months
- ☐ 13 to 24 months
- ☐ More than 24 months

The next questions are about the prenatal care you received during your most recent pregnancy. Prenatal care includes visits to a doctor, nurse, or other health care worker before your baby was born to get checkups and advice about pregnancy. (It may help to look at the calendar when you answer these questions.)

20. How many weeks or months pregnant were you when you were *sure* you were pregnant? (For example, you had a pregnancy test or a doctor or nurse said you were pregnant.)

____Weeks **OR** ____ Months ☐ I don't remember

21. How many weeks or months pregnant were you when you had your first visit for prenatal care? Do not count a visit that was only for a pregnancy test or only for WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children).

_____Weeks **OR** _____ Months

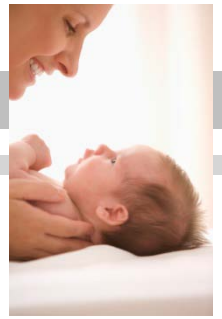
- ☐ I didn't go for prenatal care

22. Did you get prenatal care as early in your pregnancy as you wanted?

- ☐ No
- ☐ Yes
- ☐ I didn't want prenatal care ⟶ **Go to Question 24**

23. Here is a list of problems some women can have getting prenatal care. For each item, circle **Y** (Yes) if it was a problem for you during your most recent pregnancy or circle **N** (No) if it was not a problem or did not apply to you.

a.	I couldn't get an appointment when I wanted one	N	Y
b.	I didn't have enough money or insurance to pay for my visits	N	Y
c.	I had no way to get to the clinic or doctor's office	N	Y
d.	I couldn't take time off from work	N	Y
e.	The doctor or my health plan would not start care as early as I wanted.	N	Y
f.	I didn't have my Medicaid card	N	Y
g.	I had no one to take care of my children	N	Y
h.	I had too many other things going on	N	Y
i.	I didn't want anyone to know I was pregnant	N	Y
j.	Other ⟶ Please tell us:_____		



Utah PRAMS Phase V Questionnaire

If you did not go for prenatal care go to Question 32.

24. Where did you go *most of the time* for your prenatal visits? (Do not include visits for WIC.) Check one answer

- ☐ Hospital clinic
- ☐ Health department clinic
- ☐ Private doctor's office or HMO clinic
- ☐ Community Health Clinic
- ☐ Other ⟶ Please tell us:_____

25. How was your prenatal care paid for? Check all that apply

- ☐ Medicaid
- ☐ Personal income (cash, check, or credit card)
- ☐ Health insurance or HMO (including insurance from your work or your husband's work)
- ☐ Other ⟶ Please tell us:_____

26. During any of your prenatal care visits, did a doctor, nurse, or other health care worker talk with you about any of the things listed below? Please count only discussions, not reading materials or videos. For each item, circle **Y** (Yes) if someone talked with you about it or circle **N** (No) if no one talked with you about it.

a. How smoking during pregnancy could affect my baby	N	Y
b. Breastfeeding my baby	N	Y
c. How drinking alcohol during pregnancy could affect my baby	N	Y
d. Using a seat belt during my pregnancy	N	Y
e. Birth control methods to use after my pregnancy	N	Y
f. Medicines that are safe to take during my pregnancy	N	Y
g. How using illegal drugs could affect my baby	N	Y
h. Doing tests to screen for birth defects or diseases that run in my family	N	Y
i. What to do if my labor starts early	N	Y
j. Getting tested for HIV (the virus that causes AIDS)	N	Y
k. Physical abuse to women by their husbands or partners	N	Y

27. We would like to know how you felt about the prenatal care you got during your most recent pregnancy. If you went to more than one place for prenatal care, answer for the place where you got *most* of your care. For each item, circle **Y** (Yes) if you were satisfied or circle **N** (No) if you were not satisfied.

Were you satisfied with -

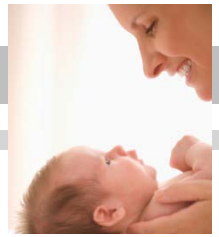
a. The amount of time you had to wait after you arrived for your visits	N	Y
b. The amount of time the doctor or nurse spent with you during your visits	N	Y
c. The advice you got on how to take care of yourself	N	Y
d. The understanding and respect that the staff showed toward you as a person	N	Y

28. During any of your prenatal care visits, did a doctor, nurse, or other health care worker talk with you about how much weight you should gain during your pregnancy?

- ☐ No
- ☐ Yes

29. During any of your prenatal care visits, did a doctor, nurse, or other health care worker ask you:

a. How much alcohol you were drinking	N	Y
b. If someone was hurting you emotionally or physically	N	Y
c. If you were using illegal drugs (marijuana or hash, cocaine, crack, etc.)	N	Y
d. If you wanted to be tested for HIV (the virus that causes AIDS)	N	Y
e. If you planned to use birth control after your baby was born	N	Y
f. If you were smoking cigarettes	N	Y



30. At any time during your most recent pregnancy, did you get tested for the bacteria group B strep (or Beta Strep)?

- ☐ No
- ☐ Yes
- ☐ I don't know

31. At any time during your most recent pregnancy or delivery, did you have a test for HIV (the virus that causes AIDS)?

- ☐ No
- ☐ Yes ⟶ **Go to Question 36**
- ☐ I don't know

32. Were you *offered* an HIV test during your pregnancy?

- ☐ No ⟶ **Go to Question 36**
- ☐ Yes

33. Did you turn down the HIV test?

- ☐ No ⟶ **Go to Question 36**
- ☐ Yes

34. Why did you turn down the HIV test?

- ☐ I did not think I was at risk for HIV
- ☐ I did not want people to think I was at risk for HIV
- ☐ I was afraid of getting the result
- ☐ I was tested before this pregnancy, and did not think I needed to be tested again
- ☐ Other ⟶ Please tell us:_____

The next questions are about your most recent pregnancy and things that might have happened during your pregnancy.

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

- ☐ No
- ☐ Yes

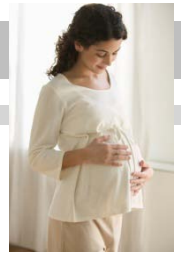
36. Did you have any of these problems during your most recent pregnancy? For each item, circle Y (Yes) if you had the problem or circle N (No) if you did not.

a.	High blood sugar (diabetes) that started *before* this pregnancy	N Y
b.	High blood sugar (diabetes) that started *during* this pregnancy	N Y
c.	Vaginal bleeding	N Y
d.	Kidney or bladder (urinary tract) infection	N Y
e.	Severe nausea, vomiting, or dehydration	N Y
f.	Cervix had to be sewn shut (incompetent cervix)	N Y
g.	High blood pressure, hypertension (including pregnancy-induced hypertension [PIH], preeclampsia, or toxemia)	N Y
h.	Problems with the placenta (such as abruptio placentae or placenta previa)	N Y
i.	Labor pains more than 3 weeks before my baby was due (preterm or early labor)	N Y
j.	Water broke more than 3 weeks before my baby was due (premature rupture of membranes [PROM])	N Y
k.	I had to have a blood transfusion	N Y
l.	I was hurt in a car accident	N Y

If you did not have any of these problems, go to question 38.

37. Did you do any of the following things because of these problems? For each item, circle **Y** (Yes) if you did that thing or circle **N** (No) if you did not.

a.	I went to the hospital or emergency room and stayed less than 1 day	N Y
b.	I went to the hospital and stayed 1 to 7 days	N Y
c.	I went to the hospital and stayed more than 7 days	N Y
d.	I stayed in bed at home more than 2 days because of my doctor's or nurse's advice	N Y



The next questions are about smoking cigarettes and drinking alcohol.

38. Have you smoked at least 100 cigarettes in the *past 2 years*? (A pack has 20 cigarettes.)

- ☐ No ⟶ **Go to Question 43**
- ☐ Yes

39. 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
- ☐ None (0 cigarettes)

40. In the *last 3 months* of your pregnancy, 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
- ☐ None (0 cigarettes)

41. How many cigarettes do you smoke on an average day *now*? (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
- ☐ None (0 cigarettes)

42. Have you had any alcoholic drinks in the *past 2 years*? (A drink is 1 glass of wine, wine cooler, can or bottle of beer, shot of liquor, or mixed drink.)

- ☐ No ⟶ **Go to Question 46**
- ☐ Yes

43a. 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

43b. During the *3 months before* you got pregnant, how many times did you drink 5 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 5 drinks or more in 1 sitting
- ☐ I didn't drink then

44a. 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

44b. During the *last 3 months* of your pregnancy, how many times did you drink 5 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 5 drinks or more in 1 sitting
- ☐ I didn't drink then

Pregnancy can be a difficult time for some women. These next questions are about things that may have happened before and during your most recent pregnancy.

45. 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. (It may help to use the calendar.)

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.	I or my husband or partner went to jail	N	Y
l.	Someone very close to me had a bad problem with drinking or drugs	N	Y
m.	Someone very close to me died	N	Y

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The next questions are about the time during the *12 months before* you got pregnant with your new baby.

46a. During the *12 months before* you got pregnant, did an ex-husband or ex-partner push, hit, slap, kick, choke, or physically hurt you in any other way?

- ☐ No
- ☐ Yes

46b. During the *12 months before* you got pregnant, were you physically hurt in any way by your husband or partner?

- ☐ No
- ☐ Yes

The next questions are about the time during your most recent pregnancy.

47a. During your most recent pregnancy, did an ex-husband or ex-partner push, hit, slap, kick, choke, or physically hurt you in any other way?

- ☐ No
- ☐ Yes

47b. During your most recent pregnancy, were you physically hurt in any way by your husband or partner?

- ☐ No
- ☐ Yes

The next questions are about your labor and delivery. (It may help to look at the calendar when you answer these questions.)

48. When was your baby due?

_____ _____ _____
Month Day Year

49. When did you go into the hospital to have your baby?

_____ _____ _____
Month Day Year

- ☐ I didn't have my baby in a hospital

50. When was your baby born?

_____ _____ _____
Month Day Year

51. When were you discharged from the hospital after your baby was born? (It may help to use the calendar.)

_____ _____ _____
Month Day Year

- ☐ I didn't have my baby in a hospital

52. How was your delivery paid for? Check all that apply

- ☐ Medicaid
- ☐ Personal income (cash, check, or credit card)
- ☐ Health insurance or HMO (including insurance from your work or your husband's work)
- ☐ Other ⟶ Please tell us:_____

The next questions are about the time since your new baby was born.

53. After your baby was born, was he or she put in an intensive care unit?

- ☐ No
- ☐ Yes
- ☐ I don't know

54. After your baby was born, how long did he or she stay in the hospital?

- ☐ Less than 24 hours (less than 1 day)
- ☐ 24 to 48 hours (1 to 2 days)
- ☐ 3 days
- ☐ 4 days
- ☐ 5 days
- ☐ 6 days or more
- ☐ My baby was not born in a hospital
- ☐ My baby is still in the hospital ⟶ **Go to Question 57**

55. Is your baby alive now?

- ☐ No ⟶ **Go to Question 66**
- ☐ Yes

56. Is your baby living with you now?

- ☐ No ⟶ **Go to Question 66**
- ☐ Yes

57. Did you ever breastfeed or pump breast milk to feed your new baby after delivery?

- ☐ No
- ☐ Yes ⟶ **Go to Question 61**

58. Are you still breastfeeding or feeding pumped milk to your new baby?

- ☐ No
- ☐ Yes ⟶ **Go to Question 60**

59. How many weeks or months did you breastfeed or pump milk to feed your baby?

_____ Weeks **OR** _____ Months

- ☐ Less than 1 week

60. How old was your baby the first time you fed him or her anything besides breast milk? Include formula, baby food, juice, cow's milk, water, sugar water, or anything else you fed your baby.

_____ Weeks **OR** _____ Months

- ☐ My baby was less than 1 week old
- ☐ I have not fed my baby anything besides breast milk

If your baby is still in the hospital, go to question 66.

61. About how many hours a day, on average, is your new baby in the same room with someone who is smoking?

_____ Hours

- ☐ Less than 1 hour a day
- ☐ My baby is never in the same room with someone who is smoking

62. How do you *most often* lay your baby down to sleep now? Check one answer

- ☐ On his or her side
- ☐ On his or her back
- ☐ On his or her stomach

63. How often does your new baby sleep in the same bed with you or anyone else?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

64. Was your new baby seen by a doctor, nurse, or other health care worker during the first week after he or she left the hospital?

- ☐ No
- ☐ Yes

65. Has your new baby had a well-baby checkup? (A well-baby checkup is regular health visit for your baby usually at 2, 4, or 6 months of age.)

- ☐ No
- ☐ Yes

66. Are you or your husband or partner doing anything *now* to keep from getting pregnant? (Some things people do to keep from getting pregnant include not having sex at certain times [rhythm] or withdrawal, and using birth control methods such as the pill, condoms, cervical ring, IUD, having their tubes tied, or their partner having a vasectomy.)

- ☐ No
- ☐ Yes ⟶ **Go to Question 76**

67. What are your or your husband's or partner's reasons for not doing anything to keep from getting pregnant *now*? Check all that apply

- ☐ I am not having sex
- ☐ I want to get pregnant
- ☐ I don't want to use birth control
- ☐ My husband or partner doesn't want to use anything
- ☐ I don't think I can get pregnant (sterile)
- ☐ I can't pay for birth control
- ☐ I am pregnant now
- ☐ Other ⟶ Please tell us:_____

68. After your new baby was born, did a doctor, nurse, or other health care worker talk with you about using birth control?

- ☐ No
- ☐ Yes

69. During the *12 months before* your new baby was born, what were the sources of your household's income? Check all that apply

- ☐ Paycheck or money from a job
- ☐ Money from family or friends
- ☐ Money from a business, fees, dividends, or rental income
- ☐ Aid such as Temporary Assistance for Needy Famlies (TANF), welfare, WIC, public assistance, general assistance, food stamps or Supplemental Security Income
- ☐ Unemployment benefits
- ☐ Child Support or alimony
- ☐ Social security, workers' compensation, disability, veteran benefits, or pensions
- ☐ Other ⟶ Please tell us:_____

70. During the *12 months before* your new baby was born, what was your total household income before taxes? Include your income, your husband's or partner's income, and any other income you may have used. (All information will be kept private and will not affect any services you are now getting.) Check one answer

- ☐ 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 or more

71. How many people, including yourself, depended on this income?

_____People

The next questions are about a variety of topics.

72. During your most recent pregnancy, did a doctor, nurse, or other health care worker tell you that you had a urinary tract infection (UTI), a sexually transmitted disease (STD), or any vaginal infection, including bacterial vaginosis or Group B Strep (Beta Strep)?

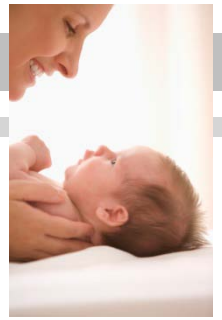
- ☐ No ⟶ **Go to Question 74**
- ☐ Yes
- ☐ I don't know

73. What disease or infection were you told you had? Check all that apply.

- ☐ Genital warts (HPV)
- ☐ Herpes
- ☐ Chlamydia
- ☐ Gonorrhea
- ☐ Pelvic inflammatory disease (PID)
- ☐ Syphilis
- ☐ Group B Strep (Beta Strep)
- ☐ Bacterial vaginosis
- ☐ Trichomoniasis (Trich)
- ☐ Yeast infections
- ☐ Urinary tract infection (UTI)
- ☐ Other ⟶ Please tell us:_____

74. At any time during your pregnancy, did you *seek help* for depression from a doctor, nurse, or other health care worker?

- ☐ No
- ☐ Yes



75. Did you try to get Medicaid coverage during your most recent pregnancy?

- ☐ No ⟶ Go to Question 78
- ☐ Yes

76. Did you have any problems getting Medicaid during your pregnancy?

- ☐ No
- ☐ Yes

77. When did Medicaid coverage begin during your pregnancy?

- ☐ During the first 3 months of my pregnancy
- ☐ During the second 3 months of my pregnancy
- ☐ During the last 3 months of my pregnancy
- ☐ I did not get Medicaid during my pregnancy

If your baby is no longer alive or living with you, please go to Question 94

78. Are you currently in school or working outside of the home?

- ☐ No ⟶ **Go to question 80**
- ☐ Yes

79. Which one of the following people spends the most time taking care of your baby when you go to work or school?

- ☐ My husband or partner
- ☐ Baby's grandparent
- ☐ Other close family member or relative
- ☐ Friend or neighbor
- ☐ Babysitter, nanny, or other child care provider
- ☐ Staff at day care center
- ☐ Other ⟶ Please tell us:_____

80. Did you or any member of your household apply for government payments such as welfare, TANF (Temporary Assistance to Needy Families), or other public assistance?

- ☐ No
- ☐ Yes ⟶ Go to Question 96

81. Did any of these things keep you from applying for government help? Check all that apply

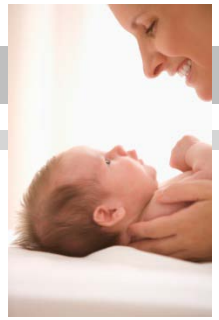
- ☐ I didn't think I could get help because my household made too much money
- ☐ I didn't know how to apply
- ☐ There was too much paperwork
- ☐ I didn't want to use up my benefits
- ☐ I didn't think I could get help because I am from another country
- ☐ Other ⟶ Please tell us:_____

82a. Since your new baby was born, how often have you felt down, depressed, or hopeless?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

82b. Since your new baby was born, how often have you had little interest or little pleasure in doing things?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never



83. *Since your new baby was born*, did you seek *help* for depression from a doctor, nurse, or other health care worker?

- ☐ No
- ☐ Yes

84. This question is about things that may have happened during your most recent pregnancy. For each thing, circle **Y** (Yes) if it happened to you or circle **N** (No) if it did not.

During your most recent pregnancy—

a.	Your husband or partner threatened you or made you feel unsafe in some way	N Y
b.	You were frightened for the safety of yourself or your family because of the anger or threats of your husband or partner	N Y
c.	Your husband or partner tried to control your daily activities, for example, controlling who you could talk to or where you could go	N Y
d.	Your husband or partner forced you to take part in any sexual activity when you did not want to (including touch that made you uncomfortable)	N Y

85. This question is about the care of your teeth during your most recent pregnancy. For each item, circle **Y** (Yes) if it is true or circle **N** (No) if it is not true.

a.	I needed to see a dentist for a problem	N Y
b.	I went to a dentist or dental clinic	N Y
c.	A dental or other health care worker talked with me about how to care for my teeth and gums	N Y

86. Have you ever had your teeth cleaned by a dentist or dental hygienist?

- ☐ No ⟶ **Go to Question 102**
- ☐ Yes

87. When did you have your teeth cleaned by a dentist or dental hygienist? For each of the three time periods, circle **Y** (Yes) if you had your teeth cleaned then or circle **N** (No) if you did not have your teeth cleaned then.

a.	Before my most recent pregnancy	N Y
b.	During my most recent pregnancy	N Y
c.	After my most recent pregnancy	N Y

88. During the last 3 months of your most recent pregnancy, how often did you wear a seat belt when you drove or rode in a car? Check <u>one</u> answer

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

89. What is today's date?

_____ _____ _____
Month Day Year