

# COLORADO PRAMS 2003 SURVEILLANCE REPORT

## PREGNANCY RISK ASSESSMENT MONITORING SYSTEM

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## INTRODUCTION

The Colorado Pregnancy Risk Assessment Monitoring System (PRAMS) is a population-based risk factor surveillance system conducted by the Colorado Department of Public Health and Environment, in collaboration with the Centers for Disease Control and Prevention (CDC). PRAMS is designed to identify and monitor behaviors and experiences of women before, during, and after pregnancy. Colorado PRAMS was initiated in 1996, and collected its first year of data in 1997. Currently, Colorado has data available for the years 1997-2003.

**“Exercise is very important during pregnancy.  
My pregnancy was great and so was my delivery!  
We have a very healthy baby girl!”**

Each month, the PRAMS questionnaire is mailed to approximately 250 women who recently delivered a live born infant. The PRAMS survey covers topics including attitudes and feelings about the pregnancy, prenatal care access and utilization, maternal use of alcohol and cigarettes, pregnancy related morbidity, infant health care, stress, and pregnancy related violence.

This report contains data on 11 maternal and child health (MCH) indicators from the PRAMS questionnaire. Many of the indicators include their corresponding *Healthy People 2010* objective, which are target objectives set by the U.S. Department of Health and Human Services for improving the health of mothers and children. Each indicator includes a graph and a brief narrative highlighting the findings of the data.

PRAMS findings are used to enhance Colorado’s understanding of maternal behaviors and experiences, and their relationship with adverse pregnancy outcomes. It is our hope that this data will be used to help develop and assess programs, and support policies with the goal of improving maternal and child health in Colorado.



## METHODOLOGY

**P**RAMS is an ongoing, population-based surveillance system designed to supplement vital records and to generate Colorado specific perinatal health data. Each month, a stratified random sample containing approximately 5 percent of Colorado women who recently had a baby are selected from eligible birth certificates to comprise the PRAMS sample. The sample is stratified by region of residence (Denver Metro, Other Metro, Rural) and birth weight (low, adequate) to ensure an adequate sample in the rural and low birth weight categories.

At 2 to 6 months after delivery, each sampled woman is mailed up to 3 copies of the 14 page PRAMS questionnaire. For those women who do not complete and return the PRAMS survey through the mail, PRAMS staff attempt to call the women and administer the questionnaire over the telephone. Typically, women respond to the survey within 3 to 5 months after giving birth.

The data presented in this report represent live births to Colorado residents in 2003. In 2003, a total of 2,982 women were selected to participate in PRAMS and 2,249 (75 percent) of those women completed surveys.

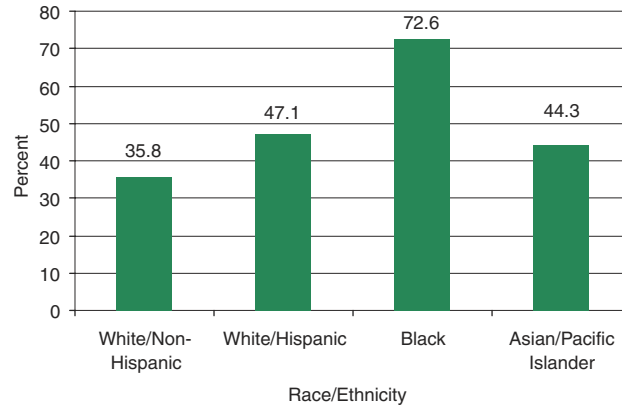
The survey data from respondents are weighted to represent all live births in 2003 to Colorado residents, ages 15 years and older. The sample data is weighted to adjust for sampling probabilities, nonresponse, and noncoverage. The weighted data can be interpreted as the number of women in Colorado who have characteristics similar to those of the respondent. All results produced in this report are generated from the statistical package SUDAAN. SUDAAN is used for the analysis of survey research data because it can account for the complex sampling design PRAMS employs.

**“I attribute my baby’s great health to taking prenatal vitamins prior to conception & eating foods with folic acid.**

**I am very thankful to have used Medicaid and being on the WIC program. I would not of been able to receive prenatal care or eaten properly without it. I’m just very thankful for it!”**

More than 40 percent of all live births in Colorado are the result of an unintended pregnancy in 2003. Unintended pregnancies are defined as those that are unwanted (pregnancy not wanted at any time) or mistimed (pregnancy not wanted until some time in the future) at the time of conception. The prevalence of unintended pregnancy was significantly higher among Black women as compared to women in other racial categories.

Figure 1. Women with unintended pregnancies by maternal race/ethnicity, 2003

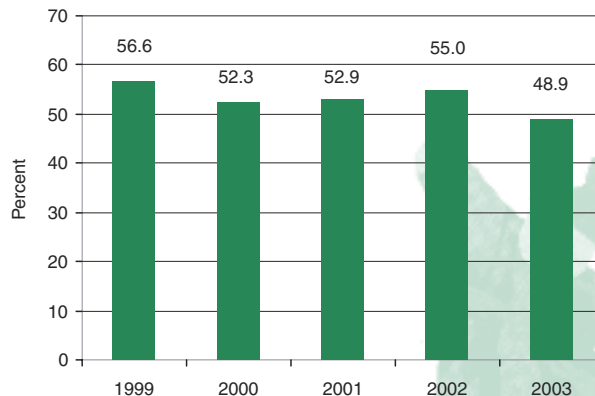


Nearly half of all women who had an unintended pregnancy were not using contraception at the time of conception. The *Healthy People 2010* objective is for 100 percent of females at risk for unintended pregnancy (and their partners) who use contraception. In 2003, the most common reasons for not using contraception at conception among unintended pregnancies were:

“Although my last pregnancy was not planned (or even wanted in the beginning), we have been blessed with two little girls - happy and healthy!”

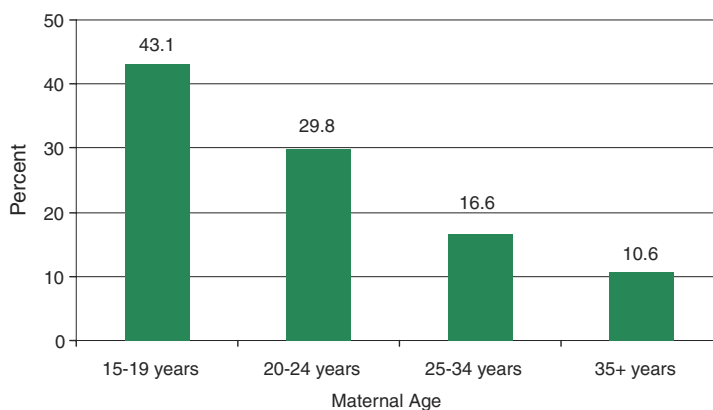
- the woman did not mind if she got pregnant (41%)
- the woman thought she could not get pregnant (29%)
- the husband or partner did not want to use any contraception (16%)

Figure 2. No contraceptive use at time of pregnancy among women with unintended pregnancy, 1999-2003.



In 2003, more than 1 in 5 pregnant women entered prenatal care later than recommended. A late start leads to an inadequate number of prenatal care visits, and an increased chance of late identification of high risk conditions. By maternal age, younger women were more likely to initiate prenatal care after the first trimester than older women. The *Healthy People 2010* objective is that 10 percent or fewer women will enter prenatal care after the first trimester.

Figure 3. Women who started prenatal care later than recommended\* by maternal age, 2003



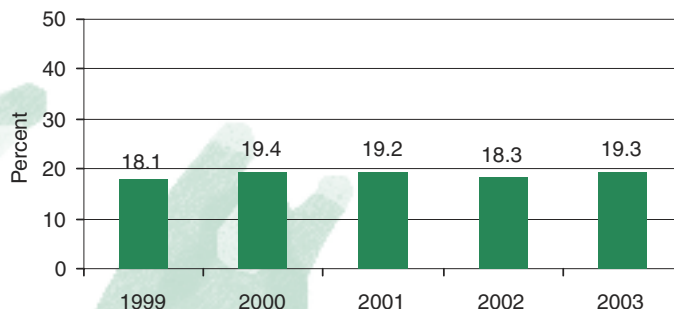
\* - after the first trimester

Many women do not receive prenatal care services as early as they would like. In 2003, the most common reasons for delayed prenatal care initiation include:

- inability to get an earlier appointment (35%)
- the woman didn't know she was pregnant (33%)
- not enough money or insurance to pay for the visits (30%)
- not having their Medicaid card (21%)
- not having a way to get to the clinic or doctor's office (10%)

**“I think access to early prenatal care is extremely important. Women with limited income need to know about the availability of free/low cost prenatal care.”**

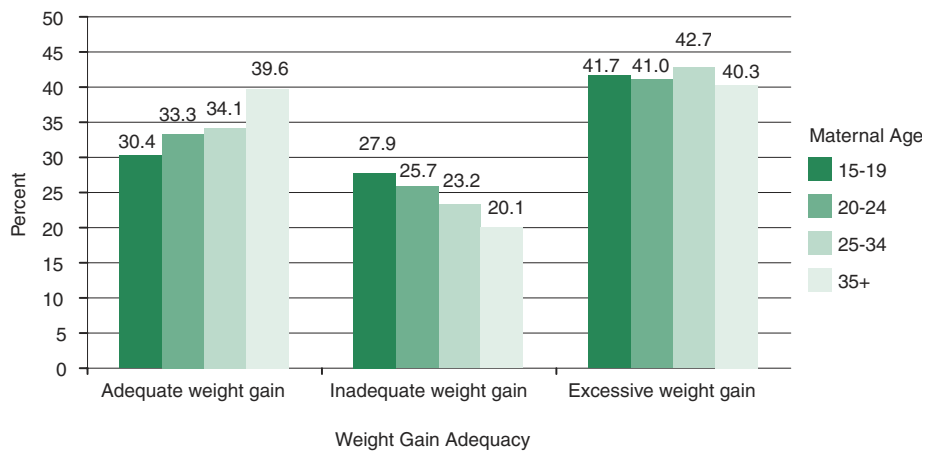
Figure 4. Women who did not get prenatal care as early as they wanted, 1999-2003



# ADEQUACY OF WEIGHT GAIN DURING PREGNANCY

Evidence suggests that maternal weight gain during pregnancy is an important determinant of fetal growth. Adequacy of weight gain is measured as the total amount of weight gain during pregnancy within, below, or above the amount recommended by the Institute of Medicine. Excessive weight gain is of concern, given the trend toward increasing obesity among US women, and the associated risks for cardiovascular disease and certain types of cancer. Inadequate prenatal weight gain is a significant risk factor for intra-uterine growth retardation and low birth weight in infants.

Figure 5. Adequacy of weight gain during pregnancy by maternal age, 2003

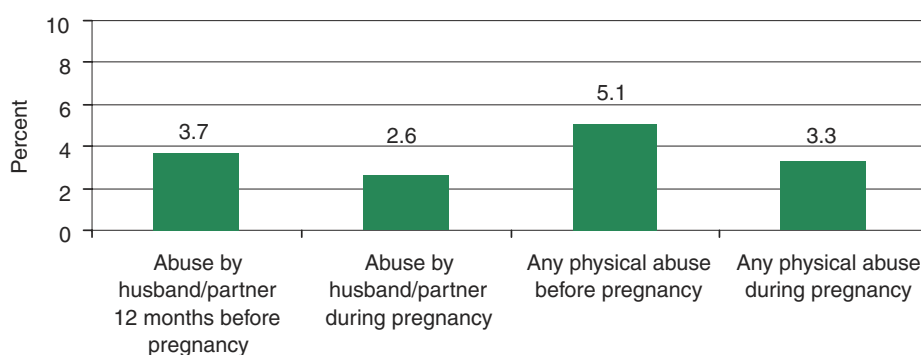


“You need to try to get a balance of physical, nutritional, and emotional health.”



During the year before pregnancy, 3.7 percent of Colorado mothers were abused by their husband or partner, and 5.1 percent reported that someone abused them before their pregnancy. These rates correlate to approximately 2,500 and 3,500 women in Colorado, respectively. Even though these rates decreased during pregnancy, they were still far greater than the *Healthy People 2010* objective. The objective is fewer than 3.3 physical assaults by a current or former intimate partner per 1,000 persons (0.33%), 12 years or older. Physical abuse during pregnancy can result in fetal loss, early onset of labor, and delivery of a preterm, low birth weight infant.

Figure 6. Physical abuse before and during pregnancy, 2003

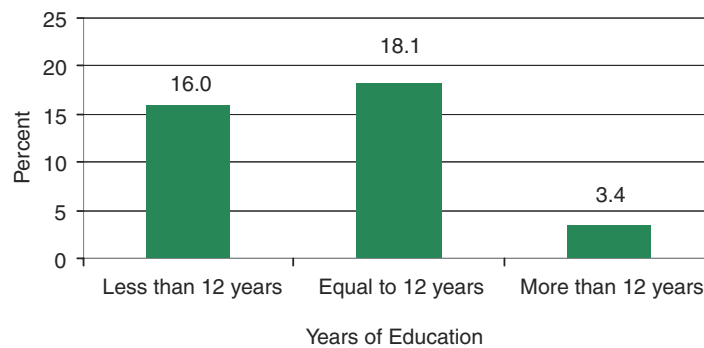


“Pregnancy is a gift. BE SURE that you’re with the right person.”

## SMOKING DURING AND AFTER PREGNANCY

Smoking cigarettes during pregnancy has been shown to contribute to a number of adverse birth outcomes, including spontaneous abortion, stillbirth, fetal death, low birthweight, prematurity, and intrauterine growth retardation. In 2003, almost 11 percent of all Colorado women smoked during pregnancy. When stratified by maternal years of education, women with less than or equal to 12 years of education were more likely to smoke during pregnancy when compared to women with more than 12 years of education. The *Healthy People 2010* objective states that 99 percent of women will abstain from smoking during pregnancy.

Figure 7. Women who smoked during pregnancy by years of education, 2003

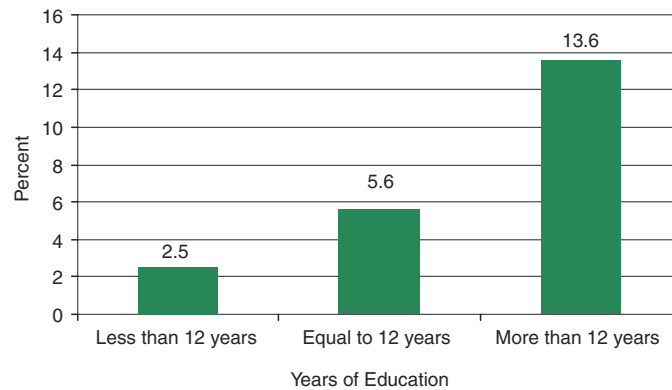


**“I smoked before I was pregnant with both of my children but as soon as I found out I was pregnant I stopped.”**



About 1 in 10 Colorado women drink alcoholic beverages during pregnancy and this has remained fairly constant over time. When viewed by maternal years of education, women with more than 12 years of education were found to have the highest prevalence of drinking alcohol during pregnancy (13.6%). In 2003, the vast majority (98%) of women who report drinking, drink three or fewer drinks per week. The *Healthy People 2010* objective is for 94 percent of pregnant women to abstain from drinking alcohol.

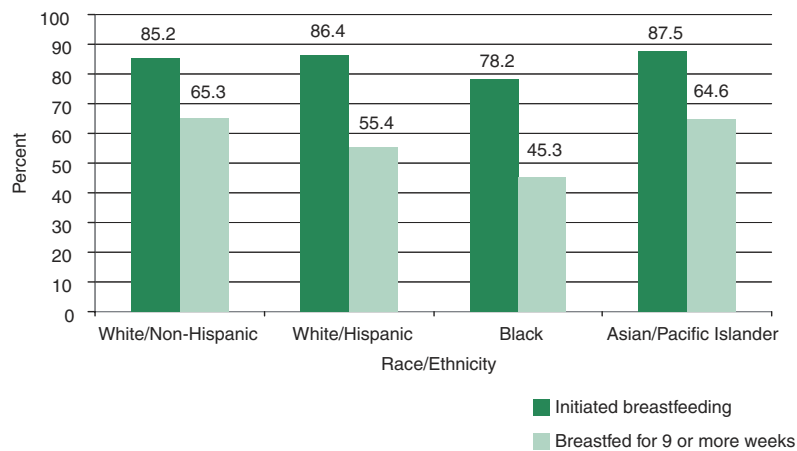
Figure 8. Women who drank alcohol during pregnancy by years of education, 2003



**“I recommend that mothers don’t drink or smoke, and exercise more. All of these will help mothers have healthier babies.”**

Most women start breastfeeding shortly after their baby is born, but many do not stick with it long enough for the baby to gain all the benefits. The American Academy of pediatrics recommends breastfeeding for one year, but most women do not. Although more women are breastfeeding, less than two-thirds currently do so for nine weeks or more. The *Healthy People 2010* objective states that 75 percent will initiate breastfeeding soon after delivery and 50 percent will breastfeed for 6 months. Breast feeding has long been touted as beneficial to both the infant and the mother. Some of the benefits for the babies are fewer middle-ear infections and chronic illnesses such as diabetes, allergies and, most recently, even obesity. Schoolchildren who were breastfed also were found to have IQs about eight points higher.

**Figure 9. Women who initiated breastfeeding and continued to breastfed for 9 or more weeks by race/ethnicity, 2003**

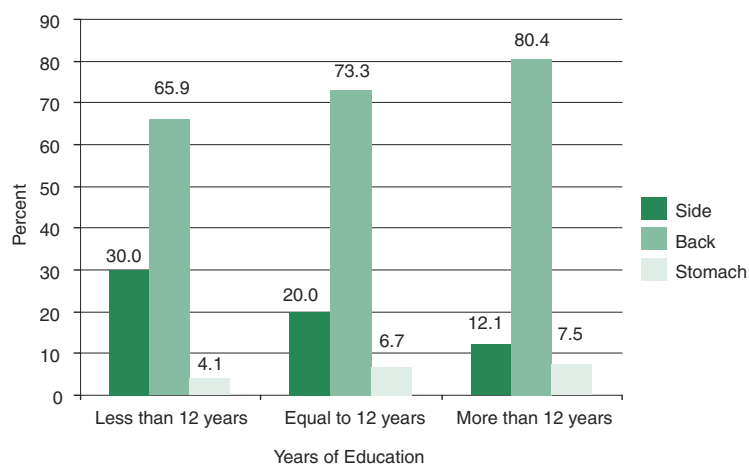


**“Parents need more encouragement and support to breastfeed their babies. Moms should be encouraged to nurse their babies at least one year.”**



Infant sleep position has been identified as an important factor in preventing sudden infant death syndrome (SIDS). Infants who sleep on their stomach are estimated to be up to 9.3 times more likely to die of SIDS than infants who sleep on their back. Since the implementation of the 1994 “Back to Sleep” campaign, the percent of infants who sleep on their backs have increased significantly. Overall, 76.9 percent of infants in Colorado are laid to sleep on their backs. However, continued efforts are needed for women with less than 12 years of education to meet the *Healthy People 2010* objective of at least 70 percent of infants being put to sleep on their backs.

**Figure 10. Percent of infants who sleep on their backs by years of education, 2003**



**“All moms should place their baby’s down to sleep on their backs to help prevent SIDS.”**

## MORE INFORMATION

The following Appendix contains an abundance of additional information derived from the PRAMS instrument. Each table reflects responses among Colorado women grouped by category or behavior. Due to the fact that not every Colorado woman whom delivered a live born infant was selected to participate, confidence intervals were calculated to estimate the true percent. A 95 percent confidence interval can be interpreted as an estimated range of values in which we are 95 percent certain the true percent lies.

**“I feel that I had a wonderful pregnancy because I exercised, ate (mostly) healthy, and had a positive attitude.**

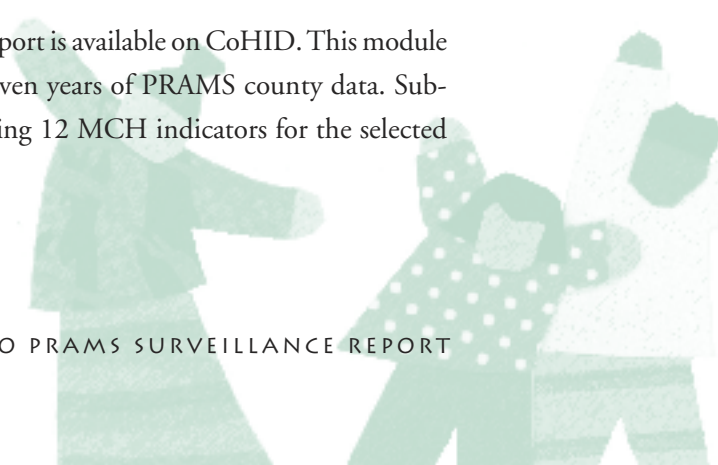
**Hurray! Someone is looking into the health of moms and babies in Colorado!”**

Each table contains three column headings: All Colorado, First Time and Poor, and Other. The “All Colorado” heading contains information that can be generalized to all women in Colorado who gave birth in the year 2003. The remaining column headings (First Time and Poor and Other) were categorized according to whether or not Colorado women had their first baby and reported being 200 percent below the federal poverty level. In 2003,

approximately 1 in 5 Colorado women had their first baby and reported being 200 percent below the federal poverty level. The First Time and Poor/Other data found in the appendix is only one example of how PRAMS data can be analyzed. Upon request, PRAMS data can be analyzed by maternal age, infant’s birth weight, Medicaid status, WIC participation, or any other characteristic of interest for which data is available.

PRAMS data are available online on the Colorado Health Information Dataset (CoHID). CoHID is an Internet-based technology, in which users may query and summarize information from a variety of datasets. The CoHID Web site can be found at: <http://www.cdphe.state.co.us/cohid/> Users are allowed the flexibility to query the PRAMS dataset by year, category or topic, county, and by selected maternal demographics.

In addition, a PRAMS county-level quick report is available on CoHID. This module allows the user to dynamically combine seven years of PRAMS county data. Submitted requests will return a table containing 12 MCH indicators for the selected county and its comparison to the state.



**Table 1. Colorado PRAMS prevalence estimates: sample characteristics, 2003**  
**Percent of All Births to First-Time Mothers with Incomes Below 200% of the Federal Poverty Level (Poor)**

Sample Characteristics	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Poverty level									
First time and poor	19.6	17.5	22.0						
All other	80.4	78.0	82.5						
Marital Status <sup>+</sup> :									
Married	71.9	69.3	74.4	35.7	29.9	42.0	80.8	78.1	83.2
Other	28.1	25.6	30.7	64.3	58.0	70.1	19.2	16.9	21.9
Birthweight <sup>+</sup> :									
Low (<2500 grams)	8.1	8.0	8.3	8.9	7.5	10.5	8.0	7.6	8.3
Adequate (≥2500 grams)	91.9	91.7	92.0	91.1	89.5	92.5	92.0	91.7	92.4
Region of residence <sup>**</sup> :									
Denver metro	58.5	58.0	58.9	59.5	54.2	64.6	58.2	56.9	59.5
Other metro	27.5	27.2	27.9	24.6	20.5	29.1	28.2	27.2	29.3
Rural	14.0	13.8	14.2	15.9	13.4	18.9	13.5	12.9	14.2
Race/Ethnicity <sup>+</sup> :									
White/Non-Hispanic	63.2	60.4	65.8	45.2	39.1	51.5	67.5	64.5	70.4
White/Hispanic	29.5	26.9	32.1	44.7	38.4	51.2	25.7	23.1	28.6
Black	3.6	2.6	4.9	4.5	2.4	8.4	3.3	2.3	4.7
Other	3.8	2.9	5.0	5.5	3.1	9.9	3.4	2.5	4.6
Education <sup>+</sup> :									
<12 years	23.3	21.0	25.8	44.6	38.2	51.1	18.1	15.8	20.7
12 years	29.8	27.3	32.4	37.6	31.6	43.9	27.9	25.2	30.8
>12 years	46.9	44.2	49.6	17.9	13.7	22.9	54.0	51.0	57.1
Age <sup>+</sup> :									
15-19 years	9.6	8.1	11.4	36.3	30.4	42.7	3.1	2.2	4.4
20-24 years	26.2	23.8	28.7	42.8	36.6	49.3	22.1	19.7	24.7
25-34 years	50.8	48.0	53.5	18.6	14.2	24.0	58.6	55.6	61.6
35+ years	13.5	11.7	15.4	2.3	1.1	4.7	16.2	14.1	18.6

\* Confidence Interval

\*\* *Denver Metro* includes Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson counties. *Other Metro* includes El Paso, Larimer, Mesa, Pueblo, and Weld counties. The *Rural* region includes the remaining counties in the state.

\*\*\* Federal Poverty Level

+ As reported on the birth certificate



**Table 2. Colorado PRAMS prevalence estimates: unintended pregnancy and birth control use, 2003**

Unintended Pregnancy and Birth Control Use %	All Colorado		First Time and Poor			All Other		
	95% C.I.*		%	95% C.I.		%	95% C.I.	
Unintended pregnancy (later, never)	41.0	38.3 43.7	59.9	53.5 66.0	36.5	33.5 39.5		
Mistimed pregnancy (later)	32.7	30.1 35.4	53.3	46.9 59.7	27.8	25.1 30.7		
Unwanted pregnancy (never)	8.3	6.9 10.0	6.6	4.1 10.6	8.7	7.1 10.6		
Husband or partner didn't want pregnancy	8.3	6.9 10.0	13.1	9.3 18.1	7.1	5.7 8.9		
Using birth control at time of pregnancy	24.6	22.3 27.1	29.3	23.8 35.5	23.4	20.9 26.2		
During PNC HCW** talked about postpartum birth control	81.1	78.8 83.1	81.2	75.9 85.6	81.0	78.5 83.3		
Using birth control now	85.7	83.6 87.5	86.7	81.7 90.5	85.4	83.1 87.5		
After baby was born HCW talked about using birth control	87.5	85.5 89.2	87.1	81.7 91.1	87.5	85.4 89.4		
Mom's pregnancy intent:								
Trying to get pregnant	42.9	40.2 45.6	28.2	22.7 34.5	46.4	43.4 49.4		
Weren't trying to get pregnant	26.0	23.6 28.5	33.9	28.0 40.3	24.1	21.5 26.9		
Not trying very hard	20.5	18.3 22.8	26.4	21.0 32.5	19.0	16.7 21.6		
Trying hard not to get pregnant	10.7	9.1 12.6	11.6	8.1 16.3	10.5	8.7 12.6		

\* Confidence Interval  
 \*\* Health Care Worker



**Table 3. Colorado PRAMS prevalence estimates: prenatal care, 2003**

Prenatal Care	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Entry into PNC** after the 1st trimester	21.7	19.4	24.2	38.0	31.7	44.7	17.8	15.5	20.3
Did Not Get PNC as early as wanted	19.3	17.2	21.7	32.5	26.6	38.9	16.1	13.9	18.6
Barriers to PNC:									
Couldn't get earlier appointment	35.3	29.2	41.8	29.8	20.4	41.3	37.9	30.5	45.9
Not enough money/no insurance	30.3	24.5	36.7	34.7	24.6	46.4	28.1	21.4	36.0
Didn't know pregnant	33.0	27.1	39.4	33.0	23.2	44.7	32.9	25.9	40.8
No transportation	10.1	6.6	15.2	14.3	7.9	24.5	8.0	4.3	14.5
MD/Health plan would not start earlier	12.8	9.3	17.4	13.5	7.7	22.4	12.5	8.4	18.2
Didn't have Medicaid card	20.8	15.8	26.8	21.0	13.3	31.5	20.7	14.7	28.3
No one to take care of children	0.8	0.3	1.8	0.0	0.0	0.0	1.1	0.5	2.7
Too many other things going on	7.6	4.6	12.1	12.5	6.4	23.1	5.2	2.5	10.2
During PNC HCW*** talked about:									
How smoking could affect baby	65.4	62.8	68.0	80.8	75.5	85.2	61.7	58.7	64.6
Breast-feeding	79.5	77.2	81.7	82.0	76.6	86.4	79.0	76.3	81.4
How drinking alcohol could affect baby	69.7	67.1	72.2	78.9	73.5	83.5	67.5	64.6	70.2
Using a seat belt during pregnancy	48.1	45.3	50.9	49.4	43.0	55.9	47.8	44.7	50.9
Postpartum birth control	81.1	78.8	83.1	81.2	75.9	85.6	81.0	78.5	83.3
Testing for birth defects	83.3	81.1	85.4	77.5	71.2	82.7	84.8	82.3	86.9
Medicines that are safe during pregnancy	88.3	86.4	90.0	84.3	79.0	88.4	89.3	87.2	91.1
How using illegal drugs could affect baby	60.5	57.8	63.1	76.0	70.3	81.0	56.7	53.7	59.7
Early labor	85.9	84.0	87.7	85.6	80.7	89.5	86.0	83.8	88.0
HIV testing	76.2	73.7	78.5	76.5	70.3	81.7	76.1	73.4	78.7
Physical abuse by husband/partner	37.5	34.9	40.2	46.8	40.5	53.3	35.3	32.4	38.2
How much weight you should gain	81.4	79.2	83.5	86.0	81.1	89.8	80.3	77.8	82.7
During PNC HCW asked If:									
You were smoking cigarettes	92.4	90.8	93.7	95.0	90.7	97.4	91.7	89.9	93.3
You were drinking alcohol	88.7	86.9	90.3	92.1	87.8	94.9	87.9	85.8	89.8
Source of most PNC visits:									
Hospital clinic	14.0	12.1	16.2	23.8	18.4	30.3	11.7	9.8	14.0
Health department clinic	4.5	3.5	5.8	9.2	5.9	14.1	3.4	2.5	4.6
Private doctor's office	62.9	60.2	65.6	36.3	30.5	42.5	69.1	66.2	72.0
Community health center	11.4	9.7	13.3	19.0	14.3	26.7	9.6	7.9	11.7
Other	7.2	5.9	8.7	11.7	8.1	16.6	6.1	4.4	7.7

\* Confidence Interval

\*\* Prenatal Care

\*\*\* Health Care Worker

**Table 4. Colorado PRAMS prevalence estimates: Medicaid coverage and WIC\*\* participation, 2003**

Medicaid Coverage and WIC Participation	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Participation in WIC during pregnancy	32.8	30.2	35.4	61.3	54.8	67.4	25.8	23.2	28.6
Covered by insurance before pregnancy (not Medicaid)	61.9	59.2	64.6	30.5	25.0	36.5	69.6	66.7	72.4
Covered by Medicaid before pregnancy	7.8	6.4	9.5	9.2	6.1	13.7	7.4	5.9	9.3
Prenatal care paid by <sup>1</sup> :									
Medicaid	32.2	29.7	34.8	61.6	55.1	67.6	25.1	22.6	27.8
Personal income	24.0	21.8	26.5	20.0	15.3	25.6	25.0	22.5	27.7
Insurance	56.4	53.6	59.1	22.3	17.5	28.0	64.6	61.7	67.4
Military/Champus/VA	4.4	3.5	5.5	4.9	2.9	8.2	4.3	3.3	5.5
Colorado Resident Discount Program	5.2	4.0	6.9	7.3	4.2	12.5	4.7	3.4	6.5
Labor and Delivery Paid by <sup>1</sup> :									
Medicaid	37.3	34.6	40.0	72.3	66.3	77.5	28.7	26.0	31.6
Personal income	23.8	21.6	26.2	10.2	7.0	14.4	27.2	24.6	29.9
Insurance	55.5	52.7	58.2	21.7	17.0	27.3	63.7	60.8	66.6
Military/Champus/VA	4.3	3.4	5.4	4.3	2.5	7.2	4.3	3.3	5.5
Colorado Resident Discount Program	0.8	0.4	1.5	0.3	0.1	1.7	0.9	0.4	1.8
Infant not covered by health insurance or Medicaid:	5.6	4.4	7.0	7.8	4.8	12.3	5.0	3.8	6.5
Type of insurance infant is covered by <sup>1</sup> :									
Medicaid	38.8	36.1	41.7	79.8	74.2	84.4	29.2	26.4	32.2
Private insurance/HMO	54.2	51.4	57.1	13.5	9.8	18.4	63.8	60.8	66.8
Child Health Plan Plus	1.6	1.0	2.6	1.6	0.5	4.9	1.6	1.0	2.7
Other	5.1	4.1	6.4	5.3	3.1	8.8	5.0	3.9	6.5

\* Confidence Interval

\*\* The Special Supplemental Nutrition Program for Women, Infants, and Children

<sup>1</sup> Respondent may select more than one



**Table 5. Colorado PRAMS prevalence estimates: breastfeeding, 2003**

Breastfeeding	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
During prenatal care HCW** talked about breastfeeding	79.5	77.2	81.7	82.0	76.6	86.4	79.0	76.3	81.4
Ever breastfed	85.3	83.2	87.2	86.4	81.3	90.3	85.0	82.6	87.2
Among all women:									
Breastfed for 4 weeks or less	31.4	28.9	34.1	45.1	38.7	51.7	28.1	25.4	31.0
Breastfed for 5-8 weeks	7.0	5.7	8.6	7.9	5.1	12.1	6.8	5.4	8.5
Breastfed for 9 or more weeks	61.6	58.8	64.3	47.0	40.5	53.5	65.1	62.1	68.0
Among all women:									
Other food at 9 or more weeks	33.3	30.8	35.9	27.7	22.2	33.9	34.7	31.8	37.6
Other food at <9 weeks	66.7	64.1	69.2	72.3	66.1	77.8	65.3	62.4	68.2
Reasons for stopping breastfeeding <sup>1</sup> :									
Baby had difficulty nursing	30.5	26.2	35.1	37.6	29.1	47.0	27.4	22.7	32.7
Did not satisfy baby	42.8	38.0	47.8	34.5	26.2	43.8	46.4	40.7	52.2
Baby not gaining enough weight	10.6	7.9	14.0	9.4	5.1	16.6	11.1	8.0	15.3
Baby became sick	3.5	2.0	5.9	3.5	1.4	8.4	3.4	1.8	6.6
Nipples were sore	18.1	14.6	22.3	23.6	16.6	32.4	15.8	12.0	20.5
Not producing enough milk	46.6	41.7	51.5	43.6	34.7	53.0	47.8	42.1	53.6
Too many household duties	10.3	7.7	13.6	8.0	4.2	14.5	11.2	8.1	15.4
Felt right time to stop	13.8	10.8	17.5	12.7	7.6	20.4	14.3	10.8	18.7
Mom became sick	6.6	4.6	9.4	9.4	5.2	16.4	5.4	3.4	8.5
Went back to school/work	23.3	19.3	27.7	21.8	15.2	30.2	23.9	19.2	29.3
Husband wanted me to stop	0.7	0.3	1.7	1.4	0.4	4.7	0.4	0.1	1.4
Needed help feeding baby	12.2	9.4	15.7	14.6	9.1	22.6	11.1	8.2	15.1
Breastfeeding practices at hospital:									
Hospital staff gave me information about breastfeeding	92.7	91.1	94.0	94.9	90.9	97.2	92.1	90.3	93.7
Baby stayed in same room with me in hospital	83.7	81.6	85.7	78.2	72.3	83.2	85.1	82.9	87.1
Breastfed baby in hospital	81.8	79.5	83.9	80.6	74.6	85.4	82.1	79.6	84.4
Breastfed baby in the first hour after birth	54.5	51.7	57.3	48.9	42.4	55.5	55.8	52.7	58.9
Hospital staff helped me learn how to breastfeed	69.4	66.7	72.0	81.7	76.0	86.3	66.4	63.4	69.4
Baby was fed only breast milk at the hospital	42.7	40.0	45.5	41.5	35.3	48.1	43.0	40.0	46.1
Hospital staff told me to breastfeed whenever baby wanted	69.7	67.1	72.3	74.8	69.0	79.9	68.5	65.5	71.4
Hospital gave me a gift pack with formula	91.0	89.3	92.4	90.1	85.4	93.4	91.2	89.4	92.7
Hospital gave me a telephone number to call for help with breastfeeding	75.6	73.0	78.0	68.9	62.3	74.8	77.2	74.4	79.8
Baby used a pacifier in the hospital	59.4	56.6	62.1	58.6	52.0	65.0	59.6	56.5	62.6

\* Confidence Interval

\*\* Health Care Worker

<sup>1</sup> Respondent may select more than one

**Table 6. Colorado PRAMS prevalence estimates: smoking, 2003**

Smoking	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Smoked >= 100 cigarettes in last 2 years	21.8	19.6	24.1	31.6	26.0	37.8	19.4	17.1	21.9
Smoked during 3 months before pregnancy	18.7	16.6	20.9	27.6	22.2	33.7	16.5	14.4	18.9
Of all women, quantity:									
None	81.3	79.1	83.4	72.4	66.3	77.8	83.5	81.1	85.6
1-9 per day	6.3	5.1	7.8	6.4	4.1	9.7	6.3	4.9	8.0
10-19 per day	5.6	4.5	7.0	8.6	5.6	12.9	4.9	3.8	6.4
20+ per day	6.8	5.5	8.3	12.6	8.7	17.9	5.4	4.2	6.8
Of those women who smoked, quantity:									
1-9 per day	33.6	27.9	39.9	23.1	15.1	33.7	37.8	30.9	45.4
10-19 per day	30.1	24.7	36.2	31.1	21.1	43.3	29.7	23.5	36.8
20+ per day	36.3	30.4	42.6	45.8	34.0	58.1	32.4	26.0	39.5
Smoked during last 3 months of pregnancy	10.6	9.0	12.4	15.2	11.2	20.4	9.4	7.8	11.4
Of all women, quantity:									
None	89.4	87.6	91.0	84.8	79.6	88.8	90.6	88.7	92.2
1-9 per day	7.0	5.7	8.5	9.0	6.3	12.8	6.5	5.1	8.1
10-19 per day	2.8	2.0	4.0	6.1	3.4	10.7	2.0	1.4	3.0
20+ per day	0.8	0.5	1.4	0.1	0.1	0.4	1.0	0.6	1.7
Of those women who smoked, quantity:									
1-9 per day	65.9	57.5	73.4	59.2	42.0	74.5	68.5	59.2	76.6
10-19 per day	26.6	19.6	34.9	39.8	24.7	57.3	21.4	14.6	30.1
20+ per day	7.5	4.4	12.6	0.9	0.3	2.8	10.1	5.9	17.0
Smoke currently (when survey completed)	14.0	12.2	15.9	20.8	16.1	26.4	12.3	10.5	14.4
Of all women, quantity:									
None	86.0	84.1	87.8	79.2	73.6	83.9	87.7	85.6	89.5
1-9 per day	5.5	4.4	6.8	9.0	6.1	13.1	4.6	3.5	6.0
10-19 per day	5.4	4.3	6.8	8.3	5.5	12.4	4.7	3.6	6.1
20+ per day	3.1	2.3	4.2	3.5	1.6	7.6	3.0	2.2	4.2
Of those women who smoke, quantity:									
1-9 per day	39.1	32.4	46.2	43.1	30.3	56.8	37.5	29.8	45.8
10-19 per day	38.6	31.9	45.8	40.1	27.7	53.8	38.0	30.2	46.5
20+ per day	22.3	16.7	29.1	16.9	7.9	32.4	24.5	18.1	32.4
During prenatal care HCW** talked about smoking	65.4	62.8	68.0	80.8	75.5	85.2	61.7	58.7	64.6
Husband/partner smokes in house	4.6	3.5	5.9	5.7	3.4	9.3	4.3	3.2	5.8
Someone else smokes in house (not including mom/husband partner)	3.9	2.9	5.1	10.1	6.8	14.9	2.3	1.6	3.4
Baby never in same room with someone smoking	95.4	94.1	96.4	91.8	87.5	94.8	96.2	94.9	97.2
During PNC*** HCW (of those who smoked before pregnancy and went for PNC):									
Discussed how to quit smoking	46.1	39.9	52.4	43.8	32.6	55.6	47.1	39.8	54.5
Suggested setting a specific date to stop smoking	24.2	19.2	30.2	21.9	13.6	33.3	25.2	19.2	32.4
Prescribed a nicotine nasal spray/inhaler	2.6	1.0	6.8	2.2	0.3	13.9	2.8	0.9	8.3
Prescribed a pill like Zyban to help quit	4.3	2.1	8.7	0.4	0.1	1.6	5.9	2.8	11.9
Recommended using nicotine gum 7.4	4.4	12.1	4.8	1.3	15.8	8.4	4.7	14.4	
Recommended using a nicotine patch	10.8	7.1	16.1	8.9	4.1	18.5	11.5	7.1	18.3
Suggested attend a class/program to stop smoking	18.6	14.2	24.0	16.0	9.4	26.0	19.6	14.3	26.3
Provided booklets/videos/other materials to help quit smoking	28.1	22.8	34.0	39.0	28.1	51.2	23.6	18.0	30.3
Referred to counseling for help with quitting	8.4	5.4	12.7	7.1	3.1	15.6	8.9	5.3	14.4

\* Confidence Interval

\*\* Health Care Worker

\*\*\* Prenatal Care

**Table 7. Colorado PRAMS prevalence estimates: alcohol and other drugs, 2003**

Alcohol/Other Drugs	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Drank alcohol during the 3 months before pregnancy	54.4	51.6	57.2	45.3	39.0	51.9	56.6	53.6	59.7
Of all women, quantity:									
None	45.6	42.8	48.4	54.7	48.1	61.0	43.4	40.3	46.4
3 or fewer drinks/week	45.9	43.2	48.7	38.3	32.2	44.7	47.8	44.8	50.9
4-6 drinks/week	5.9	4.7	7.3	4.7	2.7	8.1	6.2	4.9	7.8
7 or more drinks/week	2.6	1.8	3.7	2.3	1.0	5.5	2.7	1.8	3.9
Of those women who drank, quantity:									
3 or fewer drinks/week	84.4	81.5	86.9	84.4	76.4	90.1	84.4	81.2	87.1
4-6 drinks/week	10.8	8.7	13.3	10.4	6.0	17.4	10.9	8.6	13.7
7 or more drinks/week	4.8	3.4	6.7	5.2	2.2	11.8	4.7	3.2	6.8
Drank alcohol during last 3 months of pregnancy	8.7	7.3	10.4	3.2	1.7	6.2	10.0	8.3	12.0
Of all women, quantity:									
None	91.3	89.7	92.7	96.8	93.8	98.3	90.0	88.0	91.7
3 or fewer drinks/week	8.5	7.1	10.1	3.2	1.7	6.2	9.8	8.1	11.8
4 or more drinks/week	0.2	0.1	0.7	0.0	0.0	0.0	0.2	0.1	0.8
Of those women who drank, quantity:									
3 or fewer drinks/week	97.8	92.7	99.4	100.0	100.0	100.0	97.6	92.1	99.3
4 or more drinks/week	2.2	0.6	7.3	0.0	0.0	0.0	2.4	0.7	7.9
During prenatal care HCW** talked about:									
Alcohol consumption	69.7	67.1	72.2	78.9	73.5	83.5	67.5	64.6	70.2
Medicines that are safe									
During pregnancy	88.3	86.4	90.0	84.3	79.0	88.4	89.3	87.2	91.1
Using illegal drugs	60.5	57.8	63.1	76.0	70.3	81.0	56.7	53.7	59.7

\* Confidence Interval  
 \*\* Health Care Worker



**Table 8. Colorado PRAMS prevalence estimates: infant health and hospital stay, 2003**

Infant Health and Hospital Stay	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Hospital stay of 1 night or less for labor and delivery (mom)	17.5	15.5	19.6	11.8	8.4	16.3	18.8	16.6	21.3
Infant placed in ICU	12.7	11.2	14.5	16.0	11.9	21.2	11.9	10.3	13.8

\* Confidence Interval

**Table 9. Colorado PRAMS prevalence estimates: infant sleep position, 2003**

Infant Sleep Position	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Sleep position on back	75.4	72.9	77.7	72.9	66.3	78.6	76.0	73.3	78.5
Sleep position on side	18.2	16.1	20.4	18.7	13.9	24.7	18.0	15.8	20.5
Sleep position on stomach	6.5	5.2	8.0	8.4	5.3	13.1	6.0	4.7	7.6

\* Confidence Interval

**Table 10. Colorado PRAMS prevalence estimates: physical abuse, 2003**

Physical Abuse	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Abuse by husband/partner 12 months before pregnancy	3.7	2.8	4.8	5.9	3.6	9.7	3.1	2.2	4.3
Abuse by husband/partner during pregnancy	2.6	1.8	3.7	5.3	3.0	9.3	1.9	1.3	3.0
During PNC HCW** talked about physical abuse	37.5	34.9	40.2	46.8	40.5	53.3	35.3	32.4	38.2
Any physical abuse before pregnancy	5.1	4.1	6.5	8.8	5.8	13.1	4.2	3.2	5.6
Any physical abuse during pregnancy	3.3	2.5	4.5	7.9	5.0	12.4	2.2	1.5	3.3
Husband/partner threatened you or made you feel unsafe	4.1	3.1	5.4	8.3	5.2	13.0	3.1	2.2	4.4
Frightened for the safety of yourself/family because of the anger of husband/partner	2.5	1.8	3.5	4.3	2.4	7.6	2.0	1.3	3.1
Husband/partner tried to control daily activities	3.6	2.7	4.8	7.6	4.8	11.7	2.7	1.8	3.8
Husband/partner forced you into sexual activity	1.6	1.0	2.5	2.9	1.4	6.0	1.3	0.7	2.2

\* Confidence Interval  
 \*\* Health Care Worker

**Table 11. Colorado PRAMS prevalence estimates: stress, 2003**

Stress	All Colorado			First Time and Poor			Non-Medicaid		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Stressors experienced in the 12 months									
Before delivery:									
Family member ill and hospitalized	21.4	19.2	23.7	20.1	15.3	25.8	21.7	19.3	24.3
Separated/divorced from husband/partner	8.3	6.9	10.0	13.9	10.1	18.7	6.9	5.5	8.7
Moved to new address	38.8	36.1	41.5	51.9	45.4	58.2	35.6	32.7	38.5
Homeless	6.5	5.2	8.1	11.8	8.1	16.9	5.2	3.9	6.9
Husband/partner lost job	15.5	13.6	17.7	21.1	16.3	26.8	14.2	12.1	16.5
Lost job though wanted to continue working	13.7	11.9	15.9	23.7	18.3	30.0	11.3	9.5	13.5
Argued with husband/partner more than usual	22.6	20.4	25.0	35.1	29.2	41.5	19.6	17.3	22.1
Husband/partner didn't want pregnancy	8.3	6.9	10.0	13.1	9.3	18.1	7.1	5.7	8.9
Bills you couldn't pay	25.4	23.1	28.0	33.7	27.9	40.1	23.4	20.9	26.1
Involved in a physical fight	2.7	2.0	3.7	4.2	2.4	7.3	2.3	1.6	3.3
You or husband/partner went to jail	4.1	3.1	5.3	6.6	4.1	10.5	3.4	2.5	4.8
Someone close had problems with alcohol/drugs	12.8	11.1	14.8	20.9	16.2	26.6	10.9	9.1	12.9
Someone close died	14.4	12.7	16.4	16.0	11.9	21.2	14.0	12.1	16.2
Number of stressors experienced in the 12 months before delivery:									
0	26.4	24.0	28.9	14.3	10.4	19.4	29.4	26.7	32.2
1-2	42.9	40.2	45.6	39.6	33.5	46.1	43.7	40.7	46.7
3-5	25.0	22.6	27.5	34.4	28.6	40.7	22.7	20.2	25.4
6+	5.8	4.6	7.2	11.7	8.1	16.6	4.3	3.2	5.7
Postpartum depression:									
Not depressed	44.7	42.0	47.5	41.4	35.2	47.9	45.5	42.5	48.6
Slightly depressed	36.5	33.9	39.2	37.9	31.8	44.3	36.2	33.3	39.1
Moderately depressed	12.3	10.7	14.2	14.7	10.8	19.7	11.7	10.0	13.8
Very depressed	3.9	3.0	5.2	3.9	2.2	6.8	3.9	2.8	5.4
Very depressed and had to get help	2.6	1.8	3.6	2.2	1.1	4.4	2.7	1.8	3.9

\* Confidence Interval

**Table 12. Colorado PRAMS prevalence estimates: nutrition and maternal weight gain, 2003**

Nutrition and Maternal Weight Gain	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Frequency of taking a multivitamin before pregnancy:									
Didn't take multivitamin	54.5	51.8	57.2	74.6	68.8	79.7	49.6	46.5	52.6
1-3 times a week	9.5	8.0	11.3	9.7	6.5	14.1	9.5	7.8	11.5
4-6 times a week	6.4	5.2	7.8	3.0	1.5	5.7	7.2	5.8	8.9
Every day of the week	29.6	27.2	32.1	12.7	9.2	17.4	33.7	30.9	36.6
During prenatal care HCW** talked about									
How much weight you should gain	81.4	79.2	83.5	86.0	81.1	89.8	80.3	77.8	82.7
Body mass index just before got pregnant:									
Underweight (<19.8)	14.4	12.5	16.5	24.1	18.8	30.4	12.2	10.3	14.4
Normal (19.8-26.0)	58.1	55.3	60.9	55.8	49.0	62.4	58.6	55.5	61.7
Overweight (26.0-29.0)	11.6	9.9	13.5	7.2	4.3	11.6	12.6	10.7	14.8
Obese (>29.0)	15.9	14.0	18.2	12.9	9.2	18.0	16.6	14.4	19.1
Weight gain adequacy***:									
In IOM recommended range	34.6	31.8	37.6	34.2	27.6	41.5	34.7	31.6	37.9
Below IOM recommended range	22.9	20.4	25.6	22.0	16.6	28.6	23.1	20.3	26.1
Above IOM recommended range	42.5	39.5	45.6	43.8	36.7	51.1	42.2	38.9	45.6

\* Confidence Interval

\*\* Health Care Worker

\*\*\* The Institute of Medicine (IOM) provides recommendations for weight gain during pregnancy based on a woman's prepregnancy body mass index



**Table 13. Colorado PRAMS prevalence estimates: problems during pregnancy, 2003**

Problems During Pregnancy	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Problems During Pregnancy <sup>+</sup> :									
Early labor	28.5	26.1	31.0	24.2	19.4	29.8	29.5	26.9	32.3
High blood pressure	18.6	16.6	20.8	18.4	14.1	23.6	18.6	16.4	21.1
Vaginal bleeding	13.4	11.7	15.3	12.8	9.1	17.7	13.6	11.7	15.7
Problems with placenta	5.2	4.3	6.4	4.5	2.7	7.7	5.4	4.4	6.8
Nausea/dehydration	24.6	22.3	27.1	30.2	24.5	36.5	23.2	20.8	25.9
Kidney/bladder infection	14.3	12.4	16.3	18.8	14.4	24.1	13.2	11.2	15.4
Diabetes	7.3	6.0	9.0	6.3	3.9	10.0	7.6	6.1	9.5
PROM	4.7	4.0	5.6	4.9	3.4	7.1	4.6	3.8	5.6
Cervix sewn shut	1.8	1.2	2.7	3.7	1.9	7.1	1.3	0.8	2.2
Car accident	1.5	1.0	2.3	1.5	0.6	3.7	1.5	0.9	2.5
Hospital Stay During Pregnancy <sup>+</sup> :									
Less than 1 day	36.4	33.2	39.7	42.1	34.7	49.9	34.9	31.4	38.6
1 to 7 days	12.7	10.9	14.8	16.0	11.4	22.0	11.8	9.9	14.1
More than 7 days	2.8	2.0	3.8	1.8	1.0	3.1	3.0	2.2	4.3
Stayed in bed more than 2 days	28.3	25.3	31.4	32.4	25.5	40.2	27.2	24.0	30.7

\* Confidence Interval

+ As reported on the birth certificate

**Table 14. Colorado PRAMS prevalence estimates: well baby care visits and child care, 2003**

Well baby visits and child care	All Colorado			First Time and Poor			All Other		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
Number Well Baby Visits:									
0	2.0	1.3	3.0	2.4	1.0	5.7	1.9	1.2	3.0
1	10.2	8.7	12.0	10.9	7.4	15.8	10.1	8.4	12.0
2	37.5	34.8	40.3	26.7	21.3	32.9	40.1	37.1	43.2
3	33.1	30.5	35.8	36.2	30.0	43.0	32.4	29.5	35.4
4	11.0	9.3	12.8	13.6	9.8	18.6	10.3	8.6	12.4
5	3.3	2.4	4.4	6.0	3.6	10.0	2.6	1.8	3.7
6+	3.0	2.2	4.1	4.2	2.3	7.6	2.7	1.8	3.9
Source of Well Baby Care <sup>1</sup> :									
Hospital	10.7	9.0	12.7	20.3	15.2	26.7	8.4	6.8	10.3
Health department	6.2	4.9	7.9	13.1	8.9	18.8	4.6	3.4	6.2
Private doctor	66.8	64.0	69.4	39.2	33.1	45.7	73.4	70.5	76.1
Community health center	13.0	11.2	15.1	21.6	16.7	27.4	10.9	9.1	13.1
Other	3.3	2.5	4.6	5.8	3.3	10.0	2.8	1.9	4.0
Mom Currently in School or Working									
Outside of Home	41.6	38.9	44.4	41.1	34.8	47.6	41.8	38.8	44.8
Who Cares for Baby When at School/Work?:									
Husband/partner	27.7	23.9	31.8	26.6	18.2	37.0	27.9	23.7	32.5
Baby's teenage sibling	0.6	0.1	2.3	0.7	0.2	2.8	0.5	0.1	3.1
Baby's preteen sibling	0.1	0.0	0.2	0.1	0.0	0.9	0.0	0.0	0.3
Other close relative	26.5	22.8	30.5	29.5	21.4	39.2	25.8	21.8	30.2
Friend or neighbor	5.3	3.5	7.8	5.9	2.3	14.2	5.1	3.3	7.9
Babysitter, nanny, or child care provider	17.4	14.3	21.0	12.4	6.6	22.2	18.5	15.1	22.6
Staff at a day-care center	9.6	7.3	12.6	2.8	1.1	7.2	11.2	8.4	14.8
Other	13.0	10.3	16.2	22.0	14.3	32.4	10.9	8.3	14.1
How Often Mom Feels that Baby is Well Cared for:									
Always	85.1	81.7	88.0	84.3	75.2	90.5	85.3	81.5	88.4
Almost always	11.5	8.9	14.6	10.7	5.6	19.5	11.6	8.9	15.1
Sometimes	2.7	1.6	4.8	5.0	2.2	11.1	2.2	1.1	4.5
Rarely	0.2	0.0	0.8	0.0	0.0	0.0	0.2	0.1	1.1
Never	0.5	0.2	1.7	0.0	0.0	0.0	0.6	0.2	2.1

\* Confidence Interval

<sup>1</sup> Respondent may select more than one

**Table 15. Colorado PRAMS prevalence estimates: dental care, 2003**

<b>Dental Care</b>	<b>All Colorado</b>			<b>First Time and Poor</b>			<b>All Other</b>		
	%	95% C.I.*		%	95% C.I.		%	95% C.I.	
<b>Dental Care During Pregnancy:</b>									
Needed to see a dentist	24.4	22.1	26.9	24.7	19.5	30.8	24.3	21.8	27.1
Went to see a dentist	39.3	36.7	42.0	21.0	16.3	26.6	43.7	40.7	46.7
Dental/HCW** talked about teeth care	38.0	35.4	40.8	26.3	21.1	32.3	40.9	38.0	44.0
<b>Time Since Last Dental Care Visit:</b>									
Less than 6 months	29.1	26.5	31.8	20.4	15.3	26.5	31.0	28.2	34.1
6-11 months	20.6	18.3	23.1	16.4	11.8	22.4	21.5	19.0	24.3
12-23 months	25.3	22.9	27.9	31.9	25.6	38.9	23.8	21.2	26.7
More than 24 months	25.0	22.6	27.6	31.4	25.3	38.1	23.6	21.0	26.4

\* Confidence Interval  
 \*\*Health Care Worker





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