
South Carolina



PRAMS

Pregnancy Risk Assessment Monitoring System

2007 DATABOOK



Volume IX

Surveillance Unit

Office of Public Health Statistics and Information Services
South Carolina Department of Health and Environmental Control

**South Carolina PRAMS
2007 Databook**

Volume IX

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**Surveillance Report on Maternal Health
and Experiences during Pregnancy and the
Early Infancy Period**

**Surveillance Unit
Office of Public Health Statistics and Information Services
South Carolina Department of Health and Environmental Control**

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Foreword

The quantitative and qualitative collection, analysis, and use of maternal and child health data are fundamental to the development of an infrastructure to solve women and children's health problems at the state and local levels. Data analysis should be a central component of efforts to identify maternal and child health needs, to design appropriate program interventions, to manage and evaluate those interventions, and to monitor progress toward achieving the Healthy People 2010 Objectives (1).

The South Carolina Pregnancy Risk Assessment Monitoring System (SC PRAMS) Project plays a significant role in the SC Department of Health and Environmental Control's (DHEC) public health surveillance activities. The PRAMS Project monitors and disseminates information on maternal behavioral risk factors occurring during pregnancy and on a child's early infancy period related to birth outcomes. Thus, the SC PRAMS Project provides sound and reliable maternal and infant health data which can be used by health professionals for the planning and evaluation of perinatal health programs and for making policy decisions affecting the health of mothers and babies in South Carolina.

It is important to remember that information in this book is representative of all South Carolina mothers delivering live infants in South Carolina. Thus, generalizations can be made to this group only. Also, keep in mind that all survey information is based on self-reports from the women.

Acknowledgments

First and foremost, the SC PRAMS project staff is grateful to those South Carolina mothers who kindly took the time to complete the survey. Their invaluable information, which is summarized herein, provides a greater understanding of the health of mothers and infants in South Carolina.

For the technical support and assistance in this report, the SC PRAMS Team is indebted to the CDC PRAMS Team in the Division of Reproductive Health, Centers for Disease Control and Prevention.

This report was completed by Michael G. Smith, MSPH and Kristin L. Wilkerson, MSW, MPA. Special appreciation for their guidance and support in this endeavor goes to Kristen H. Helms, MSPH, Shae R. Sutton, PhD, and Guang Zhao, PhD.

Background & Project Description

I. Background

In 2006, South Carolina's infant mortality rate was 8.4 deaths per 1,000 live births. From 1989 to 2006, the overall infant mortality rate declined from 12.8 to 8.4. The race specific infant mortality rate for white babies was 5.7 deaths per 1,000 live births in 2006, while for black infants the rate was 13.2 deaths per 1,000 births in 2006. As compared to infants of white mothers, infants of minority mothers are more than twice as likely to die before they reach one year of age (2). Birthweight is a major determinant of infant death. Infants with a birthweight of less than 2,500 grams (LBW) are at increased risk of death and future chronic disabilities. A comprehensive report on the prevention of low birthweight calls for a better understanding of the behavioral, social, and health service utilization factors that may contribute to the health disparities among minority women and women of lower socioeconomic status (3).

II. Project Description

The SC PRAMS Project, conducted by the Office of Public Health Statistics and Information Services, Surveillance Unit, was established in 1991 through a collaborative agreement between the Centers for Disease Control and Prevention (CDC) and the South Carolina Department of Health and Environmental Control (SC DHEC). The SC PRAMS Project was designed to collect, monitor, analyze, and disseminate information on a wide variety of maternal behaviors and health experiences that may be associated with different birth outcomes.

Approximately 2,300 South Carolina mothers delivering live infants in the state are sampled from the birth registry and surveyed each year. *Self-reported* information is collected from mail and telephone surveys. The questionnaire consists of 77 structured and standardized questions (see Appendix A) and is designed to collect information on selected maternal behaviors and experiences during pregnancy and during the child's early infancy period. The mail survey is sent to sampled mothers up to three times and phone follow-ups are attempted for non-

respondents. Sample data is weighted to adjust for sampling design, non-response and non-coverage (see Appendix B). A software package for the statistical analysis of correlated data, SUDAAN, is used to conduct analyses on each year of completed survey data.

Ongoing survey data collection was initiated in January, 1993. Fourteen years of survey data have been completed. The response rates have fluctuated between a low of 66% to a high of 75%, with an overall response rate for all years, 1993-2007, of 70.5%. The response rates for 2006 and 2007 were 66.9% and 68.0%, respectively. The CDC regards a response rate of 70% or above as epidemiologically valid. **Since the 2006 and 2007 South Carolina PRAMS response rate is below the 70% threshold, any results obtained using 2006 or 2007 SC PRAMS data should be interpreted with caution.**

III. The PRAMS Staff and Collaborators

The SC PRAMS Project staff consists of the following individuals: Kristen H. Helms, MSPH (PRAMS Project Director), Michael G. Smith, MSPH (PRAMS Project Coordinator) and Kristin L. Wilkerson, MSW, MPA (PRAMS Operations Manager). The CDC PRAMS Team members have provided valuable technical assistance and consultation on all aspects of the SC PRAMS project. In addition, the SC PRAMS staff has collaborated with maternal and child health program directors throughout the agency (SC DHEC).

IV. Using this Databook

The SC PRAMS Databook is organized into twelve sections covering broad areas of maternal and infant health. In the first eleven sections, “fact sheets” precede each section with data highlights for that topic area. The twelfth section contains the PRAMS survey and technical notes. Selected PRAMS-based maternal and child health indicators have been compared to Healthy People 2010 Objectives for the nation. PRAMS data will be useful to health professionals in determining whether or not targeted health objectives are being met.

Prenatal Care Fact Sheet

Between the years of 1993-2007...

The percentage of women who entered prenatal care during the first trimester (weeks 1-12) increased from 69.6% to 75.6%. Although over 75% of women in 2007 entered prenatal care during the first trimester, this percentage was the second lowest since 1996.

In 2007, women entering prenatal care later than the first trimester of pregnancy were more likely to be:

- black
- less than 18 years of age
- less than a high school education
- unmarried
- on Medicaid.

Women that received inadequate prenatal care were more likely to be:

- black
- on Medicaid
- less than 18 years of age
- unmarried
- and had less than a high school education.

In 2007, 17.9% of women did not receive prenatal care as early as they wanted. However, 40.4% of those women actually entered care during the first trimester.

In 2007, among women with late prenatal care, the most common barriers to entering care as early as wanted were:

- not being able to get an earlier appointment (45.5%)
- not having enough money or insurance (31.0%)
- not yet receiving her Medicaid card (29.4%)
- not wanting to disclose pregnancy (25.4%)

Prenatal Care

What Some South Carolina Mothers Have to Say about Prenatal Care:

“I will like to say if any women thinks or know she is pregnant she needs to get prenatal care as soon a possible cause you will never know what can be wrong, because I made that mistake.”

“Make sure to stay on top of doctor visits. It never hurts to always ask about problems you think you may have. It's better to be safe than sorry.”

“... we went to every doctor's visit, and I took my Vitamins everyday. Changed my diet & my (our) life style to fit our new family.”

“I wish that more women had access to the service of CNMs. After significant research, my husband and I selected a hospital of a greater distance from our home and that cost us more money out of pocket to secure a midwife's skillful care.”

“... eat healthy foods and take all of your prenatal vitamins.”

“I exercised all of my pregnancy, and that really makes a difference.”

“It would be a great advantage for mothers that are pregnant with twins to have better knowledge of situations to expect.”

“I had preeclampsia and had to be admitted to the hospital for bed rest and monitoring.”

“I took my vitamins everyday. I went on walks with my husband at least 2-3 times a week. And I kept my body full of normal foods & I had a very healthy pregnancy & a very healthy little girl.”

“I could not get an appointment for a prenatal appointment scheduled until the 11-13 week mark. I was rather upset because I was seen at 9 weeks with my son.”

“The Dr. found my twins at 8 weeks pregnant. Due to early detection and certain precautions my 2 boys were born at full-term (37 wks) through a vaginal delivery. “

“Maybe mothers (soon-to-be) should start being tested for disorders during their first prenatal visit while other prenatal lab work is being drawn.”

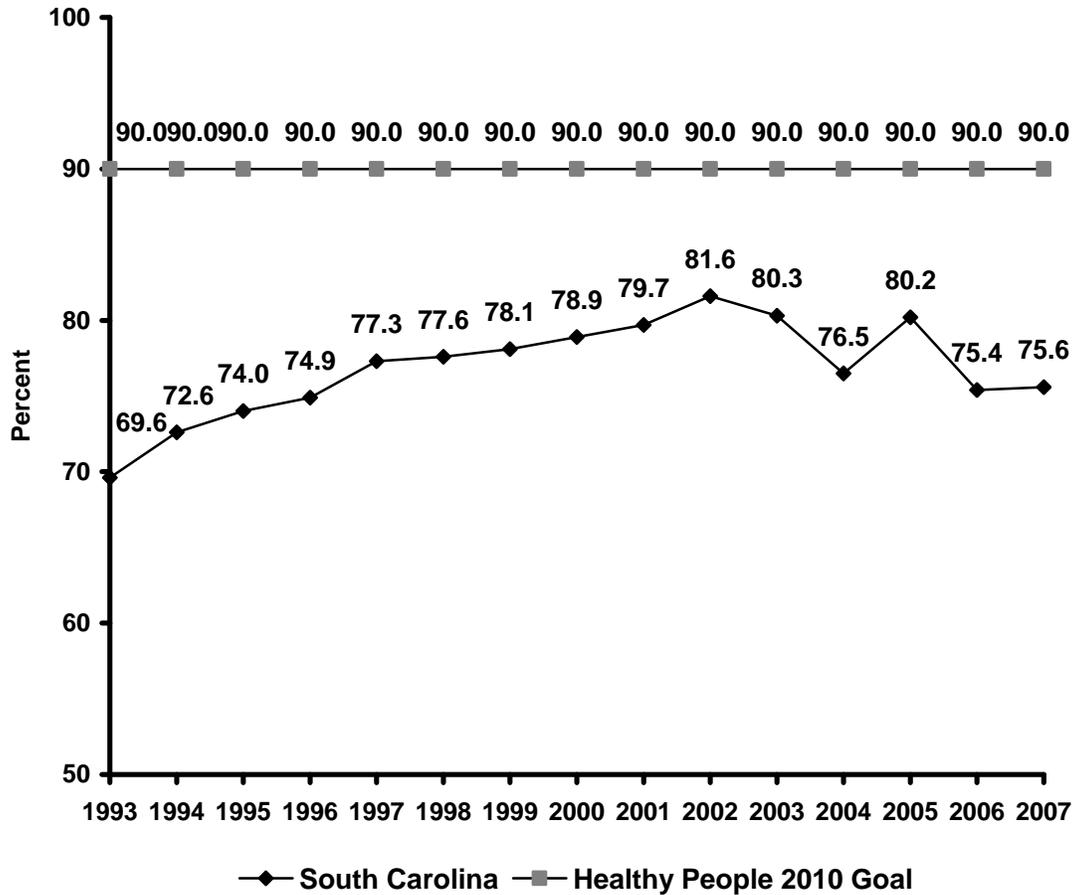
“I would like to say it is very important to get a doctor as soon as you find out that you are having a baby. I thank my nurse's and doctor very much for taking such good care of me...”

“Doctor didn't want to see me until I was 12 weeks. This is a standard practice ...”

“It's really important to get prenatal care and always ask questions.”

Prenatal Care

Proportion of Women Who Entered Prenatal Care During the First Trimester*, 1993-2007



*Note: First trimester is defined by PRAMS as weeks 1-12 of the pregnancy; therefore, this percentage is not comparable to the Healthy People 2010 Goal, which includes the 13th week in its definition of first trimester. If the 13th week is included, according to PRAMS data, SC is slightly below the Healthy People 2010 goal (90%). In 2007, 86.0% of SC women received care in the first 13 weeks of pregnancy.

The proportion of women entering prenatal care during the first trimester increased from 70% in 1993 to just over 80% in 2005, but decreased to 75.6% in 2007.

Prenatal Care

Characteristics of Women Entering Prenatal Care During the First Trimester, 2005-2007

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	80.2 (76.7, 83.4)	75.4 (71.5, 79.0)	75.6 (71.6, 79.3)
Race			
Black	70.9 (63.8, 77.0)	68.3 (60.7, 75.1)	70.7 (62.7, 77.6)
White	88.0 (84.0, 91.1)	83.3 (78.8, 87.1)	82.6 (77.8, 86.5)
Age			
Less than 18	48.6 (29.9, 67.6)	----^	----^
18-24	76.0 (69.9, 81.2)	65.7 (58.7, 72.1)	63.1 (55.5, 70.1)
25-34	85.6 (80.7, 89.5)	84.4 (79.2, 88.6)	86.2 (82.1, 90.0)
35-55	88.8 (79.0, 94.4)	81.3 (69.4, 89.3)	86.9 (77.3, 92.8)
Education			
Less than High School	66.4 (57.8, 74.0)	59.6 (50.5, 68.1)	53.2 (43.7, 62.6)
High School	76.4 (68.1, 83.0)	70.4 (62.1, 77.6)	63.8 (54.6, 72.1)
More than High School	89.2 (85.3, 92.1)	85.7 (80.9, 89.4)	90.8 (86.7, 93.7)
Marital status			
Married	88.3 (84.3, 91.5)	85.1 (80.6, 88.7)	85.9 (81.8, 89.3)
Other	69.7 (63.5, 75.2)	63.3 (56.7, 69.5)	61.4 (54.2, 68.1)
Medicaid status			
Yes	71.7 (66.6, 76.3)	67.3 (61.8, 72.3)	65.3 (59.2, 70.8)
No	93.4 (89.3, 96.0)	87.7 (82.6, 91.5)	87.9 (83.1, 91.5)
Birthweight**			
VLBW (<1500 g)	79.8 (77.8, 81.7)	75.8 (73.7, 79.0)	78.6 (76.2, 80.8)
MLBW (1500-2499 g)	77.6 (73.3, 81.5)	76.0 (71.7, 79.9)	73.7 (68.3, 78.4)
NBW (2500+ g)	80.5 (76.5, 83.9)	75.4 (71.1, 79.2)	75.7 (71.3, 79.7)

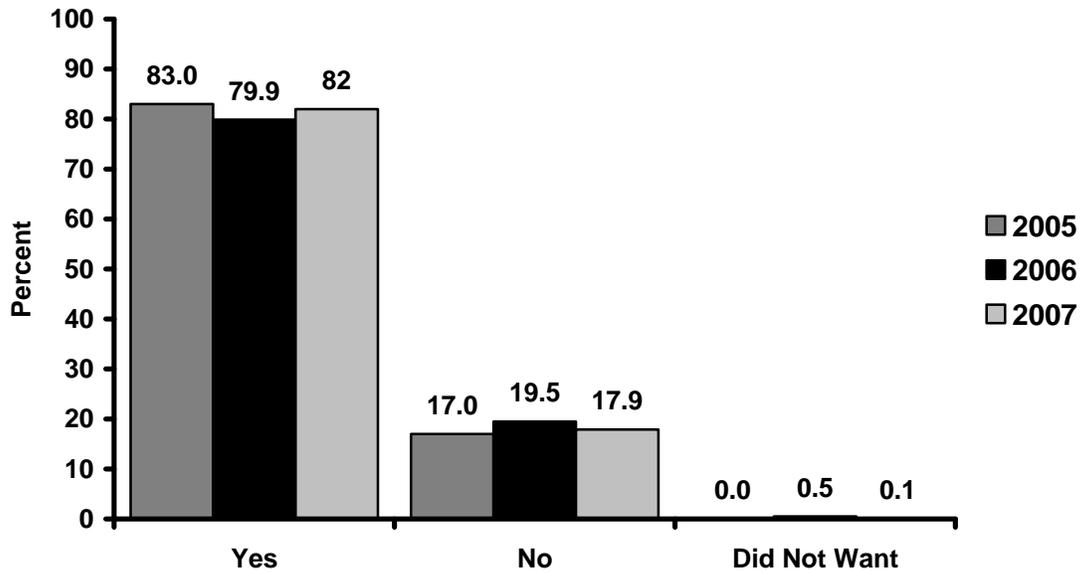
*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

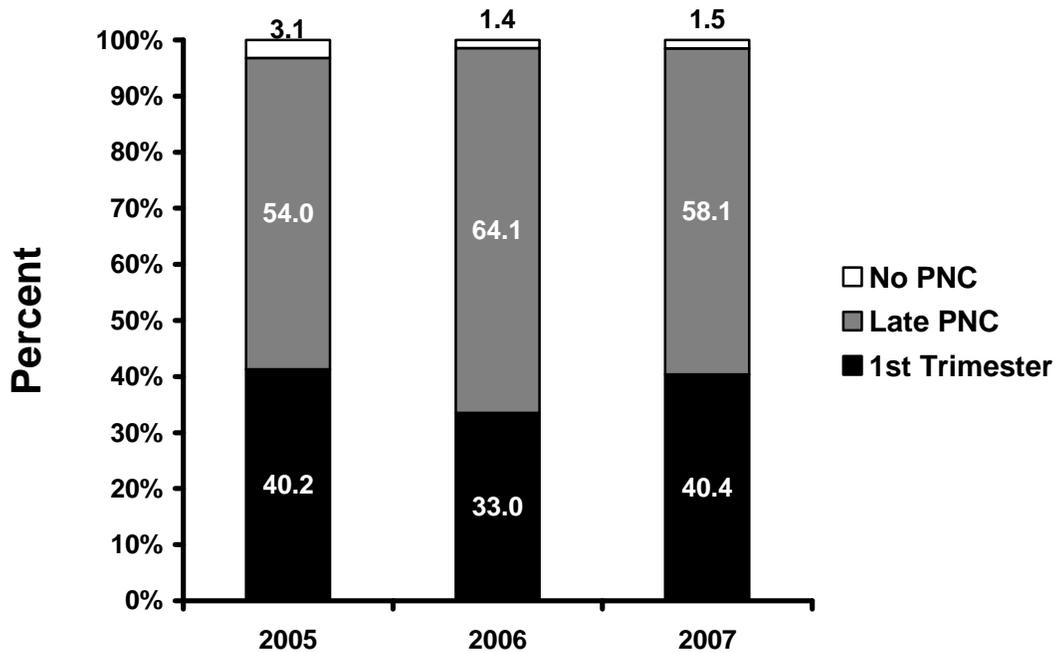
****Note:** In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Prenatal Care

Proportion of Women Who Entered Prenatal Care as Early as Wanted, 2005-2007

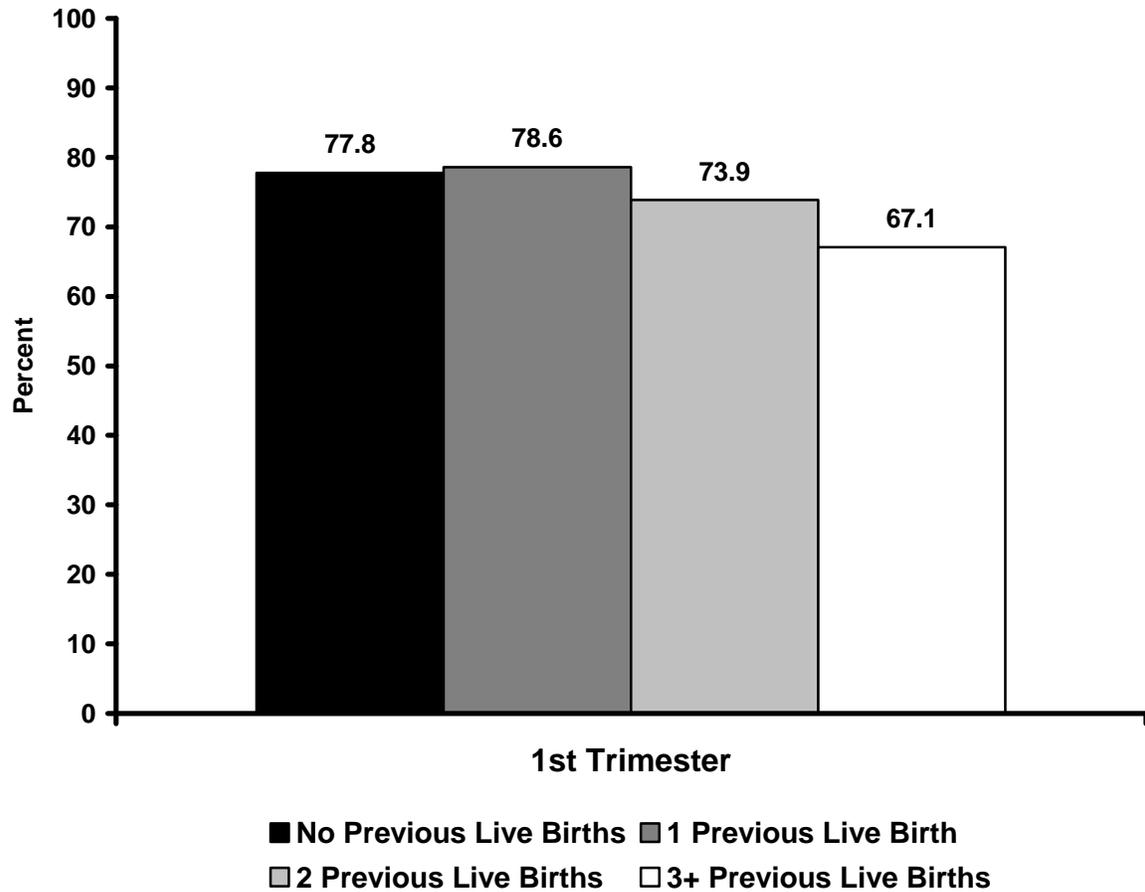


First Trimester Care for Women Who Did Not Receive Prenatal Care as Early as They Wanted, 2005-2007



Prenatal Care

Prenatal Care Entry: Differences by Parity, 1993-2007*

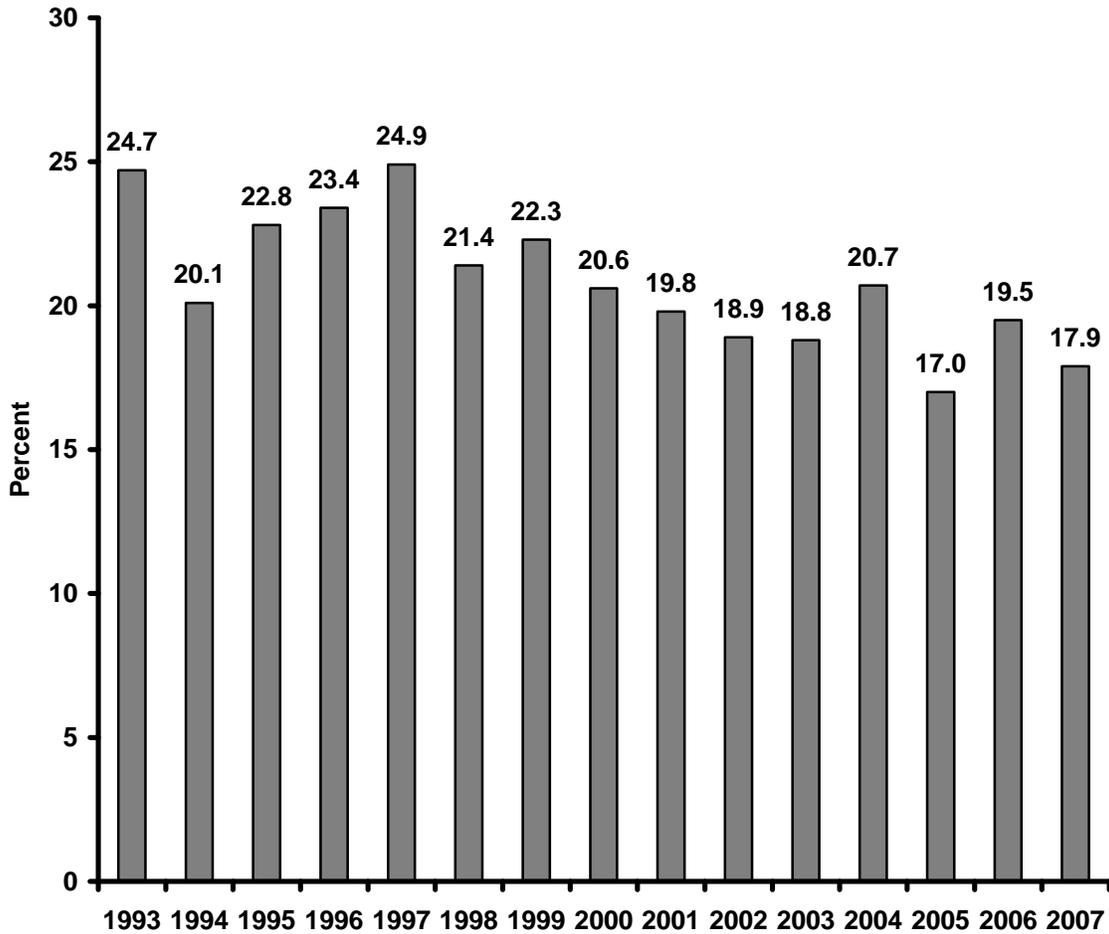


* Average percentages for 1993-2007

Between the years of 1993-2007, women with 3 or more previous live births were less likely to enter care before the end of the first trimester compared to women with fewer or no previous live births.

Prenatal Care

Proportion of Women Who Did Not Enter Prenatal Care as Early as They Wanted*, 1993-2007



*In 2007, 17.9% of women said they did not receive prenatal care as early in their pregnancy as wanted. However, 40.4% of those women actually entered care during the first trimester.

Between the years of 1993-2007 an average of 20.9% of women were unable to receive prenatal care as early as they wanted.

Prenatal Care

Characteristics of Women Who Did Not Enter Prenatal Care as Early as Wanted, 2005-2007

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	17.0 (14.2, 20.3)	19.5 (16.4, 23.1)	17.9 (14.9, 21.5)
Race			
Black	22.5 (17.2, 28.9)	25.5 (19.3, 32.8)	16.9 (11.7, 23.9)
White	13.9 (10.6, 18.1)	16.0 (12.4, 20.4)	18.7 (14.8, 23.4)
Age			
Less than 18	----^	----^	----^
18-24	20.9 (16.2, 26.6)	27.7 (21.8, 34.4)	26.4 (20.3, 33.4)
25-34	12.0 (8.6, 16.6)	14.0 (10.1, 19.0)	10.1 (7.0, 14.3)
35-55	----^	----^	----^
Education			
Less than High School	20.1 (14.1, 27.8)	27.0 (19.8, 35.6)	25.0 (17.6, 34.1)
High School	20.9 (14.8, 28.7)	23.7 (17.3, 31.6)	31.8 (23.9, 41.0)
More than High School	13.6 (10.3, 17.7)	13.7 (10.1, 18.1)	9.0 (6.4, 12.5)
Marital status			
Married	12.4 (9.2, 16.3)	11.1 (8.1, 15.1)	13.6 (10.4, 17.7)
Other	23.0 (18.2, 28.6)	30.3 (24.6, 36.7)	24.0 (18.5, 30.7)
Medicaid status			
Yes	22.6 (18.5, 27.2)	25.6 (21.0, 30.7)	22.2 (17.6, 27.7)
No	8.4 (5.5, 12.7)	10.3 (7.0, 14.8)	12.8 (9.3, 17.5)
Birthweight**			
VLBW (<1500 g)	20.8 (18.9, 22.7)	26.0 (24.0, 28.2)	25.0 (22.7, 27.4)
MLBW (1500-2499 g)	20.7 (17.1, 24.9)	23.2 (19.4, 27.4)	21.7 (17.4, 26.7)
NBW (2500+ g)	16.6 (13.6, 20.3)	19.1 (15.7, 23.1)	17.5 (14.2, 21.4)

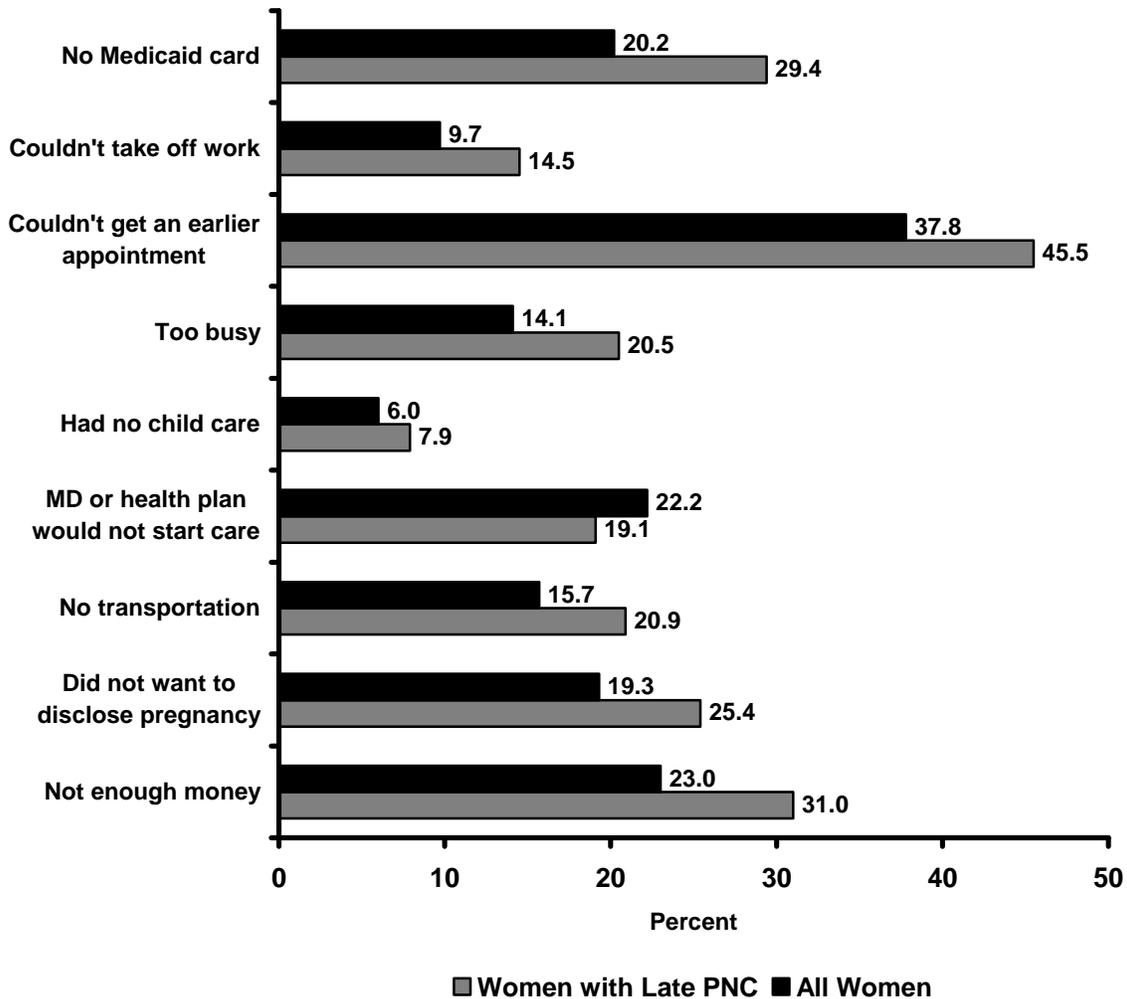
*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

****Note:** In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Prenatal Care

Barriers to Entering Prenatal Care as Early as Wanted*, 2007



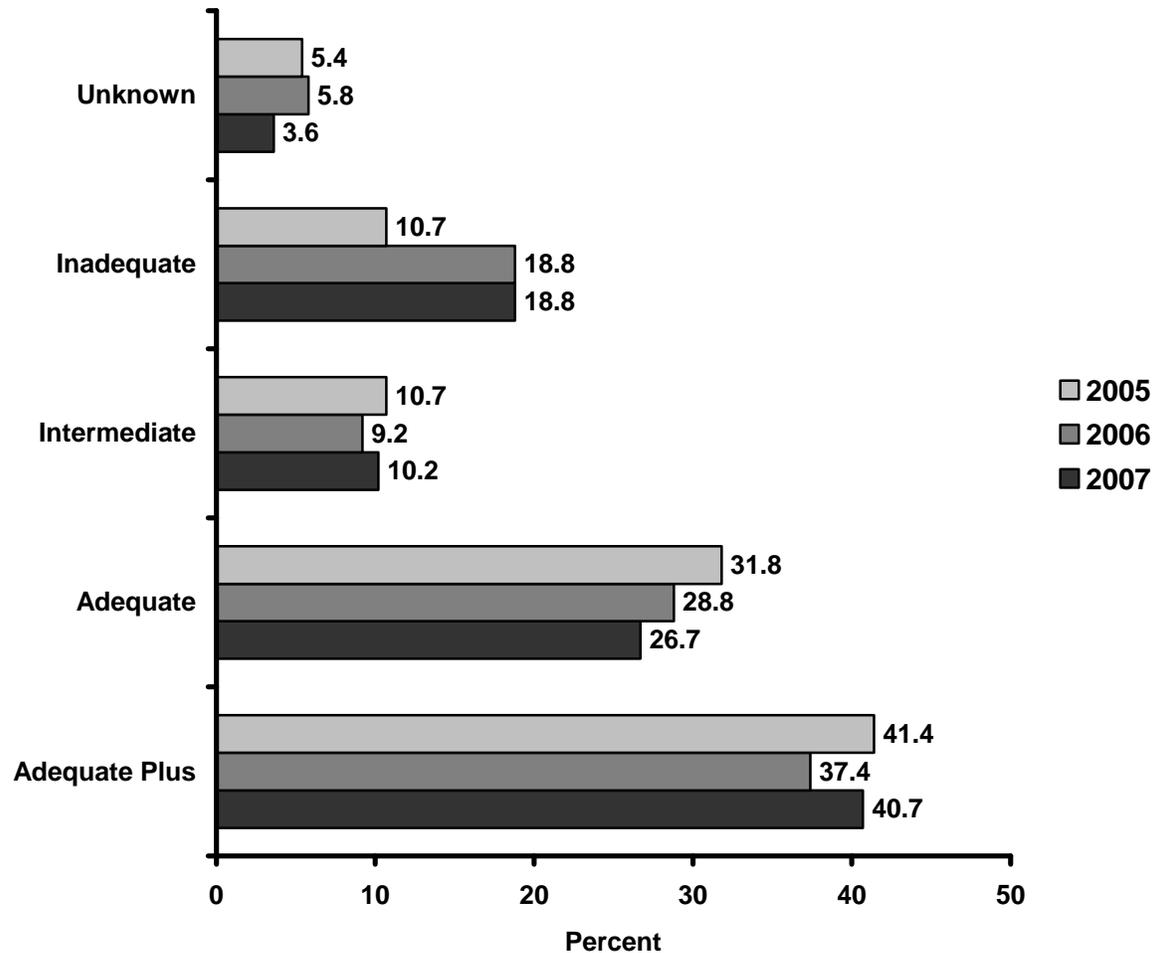
*Note: This chart represents women who stated that they did not enter prenatal care as early as they wanted, which is 17.9% of the sample for 2007. Some women reported that they did not get care as early as they wanted, but still managed to receive care before the end of the first trimester. Women who did not receive care as early as they wanted and also ended up receiving late prenatal care represent just 10.5% of the total sample for 2007.

Top three barriers to all women receiving prenatal care as early as wanted in 2007 were:
 no earlier appointment available
 not enough money to pay for the visits
 not yet received their Medicaid card.

The proportion of women not receiving first trimester care who reported that they could not get an earlier appointment has increased from 12.8% in 1996 to 45.5% in 2007.

Prenatal Care

Adequacy of Prenatal Care by Kotelchuck Index Standards*, 2005-2007



*The Kotelchuck Index defines prenatal care as inadequate, intermediate, adequate, or adequate plus. These categories are based on the month of the first prenatal care visit and the total number of prenatal care visits from prenatal care initiation until delivery. Month of first prenatal care visit was taken from question 16 of the PRAMS survey. Gestational age and total number of prenatal care visits were taken from the birth certificate file.

Less than 19% of women received inadequate prenatal care in 2007.

Women that received inadequate prenatal care were more likely to be:

- black
- on Medicaid
- less than 18 years of age
- unmarried
- and had less than a high school education.

Prenatal Care

Distribution of Kotelchuck Adequacy of Prenatal Care Index by Maternal Characteristics, 2007

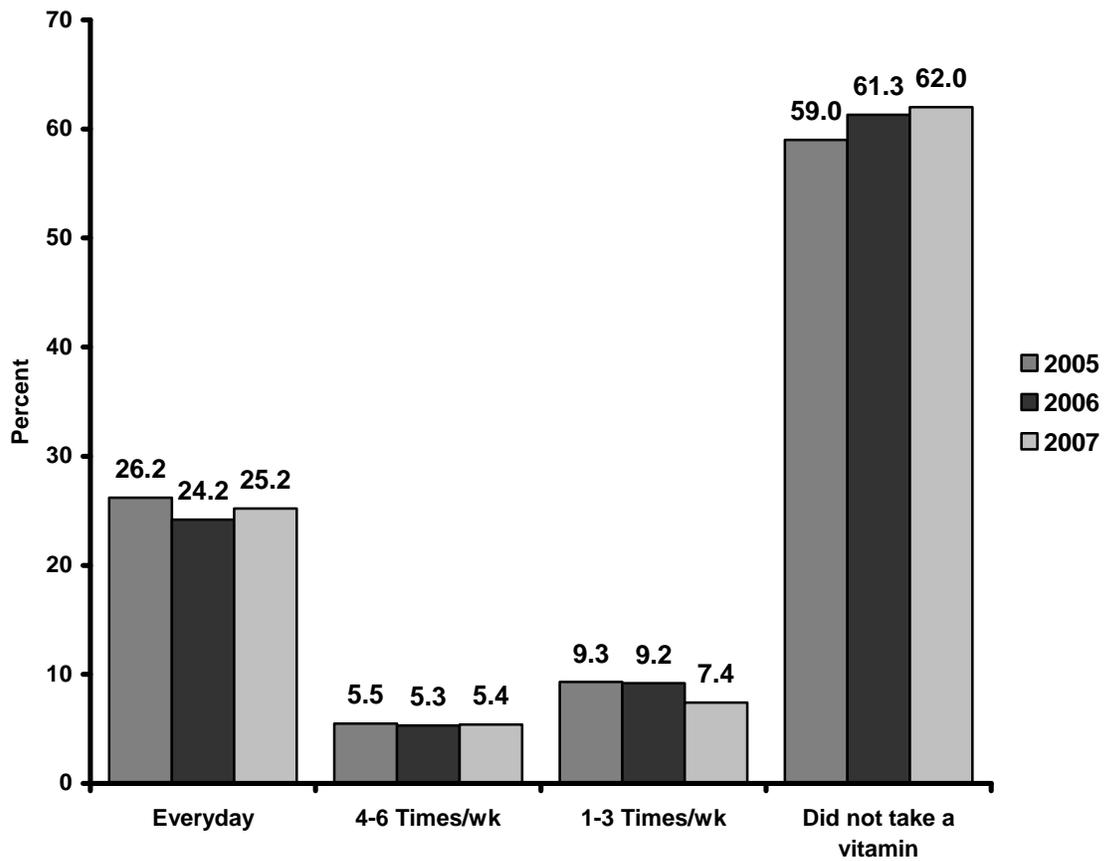
Maternal Characteristics	Adequate Plus percent (CI)*	Adequate percent (CI)*	Intermediate percent (CI)*	Inadequate percent (CI)*
Total	40.2 (38.1, 46.4)	27.7 (24.1, 31.7)	10.6 (8.2, 13.6)	19.5 (16.3, 23.2)
Race				
Black	42.7 (35.0, 50.7)	28.7 (21.7, 36.7)	----^	20.5 (14.8, 27.6)
White	44.6 (39.4, 50.0)	27.3 (22.8, 32.2)	11.7 (8.7, 15.6)	16.5 (12.8, 20.9)
Age				
Less than 18	----^	----^	----^	----^
18-24	41.8 (34.7, 49.2)	21.1 (15.6, 27.9)	----^	25.0 (19.2, 32.0)
25-34	43.1 (37.4, 49.0)	32.9 (27.5, 38.7)	----^	14.1 (10.4, 18.8)
35-55	44.9 (34.3, 56.0)	----^	----^	----^
Education				
Less than HS	34.5 (26.1, 44.0)	----^	----^	33.9 (25.5, 43.5)
High School	39.0 (30.7, 48.1)	24.5 (17.4, 33.0)	----^	29.2 (21.7, 38.1)
More than HS	46.9 (41.4, 52.3)	31.8 (26.9, 37.1)	12.2 (8.9, 16.5)	9.2 (6.6, 12.7)
Marital status				
Married	44.6 (39.6, 49.8)	29.2 (24.7, 34.1)	11.3 (8.4, 15.1)	14.9 (11.5, 19.1)
Other	38.8 (32.2, 45.9)	25.6 (19.8, 32.4)	----^	26.0 (20.3, 32.7)
Medicaid status				
Yes	42.4 (36.7, 48.4)	24.4 (19.9, 30.1)	----^	24.5 (19.8, 30.0)
No	41.9 (36.3, 47.8)	31.7 (26.5, 37.3)	----^	13.6 (9.8, 18.5)
Birthweight**				
VLBW (<1500 g)	62.4 (59.7, 65.1)	12.1 (10.4, 14.0)	----^	21.3 (19.1, 23.7)
MLBW (1500-2499 g)	57.6 (51.6, 63.4)	16.0 (12.4, 20.4)	----^	21.8 (17.4, 27.0)
NBW (2500+ g)	40.6 (36.2, 45.2)	28.9 (24.9, 33.3)	11.2 (8.5, 14.5)	19.3 (15.9, 23.3)

*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

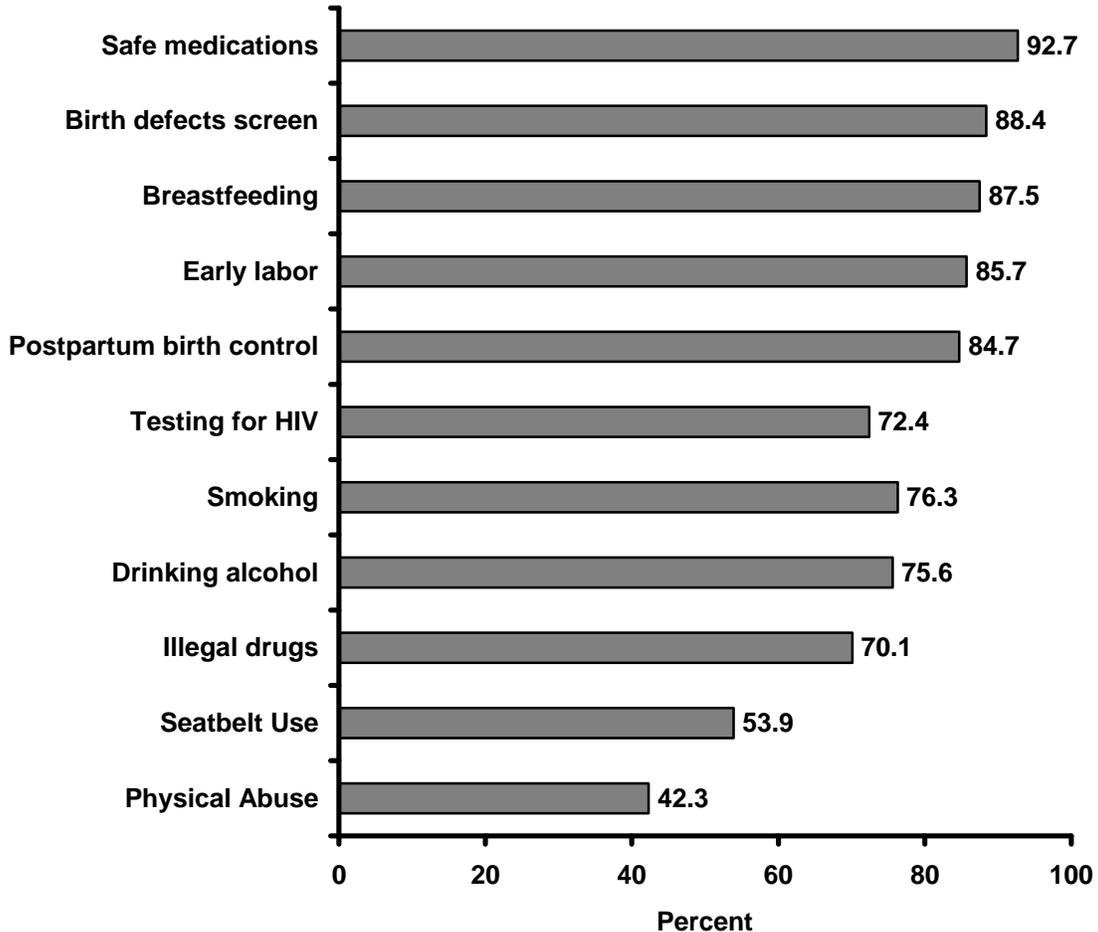
****Note:** In 2007, the Very Low Birth Weight and Low Birth Weight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Multivitamin Use Prior to Becoming Pregnant, 2005-2007



Prenatal Care

Percent of Women Receiving Information on Important Topics during Prenatal Care Visits, 2007



The top four topics women received information on during prenatal care visits in 2007:
medications which are safe to take during pregnancy
doing tests to screen for birth defects or diseases that run in the family
breastfeeding
what to do if labor starts early.

In 2007, 42.3% of women received information on physical abuse, and 53.9% of the women received information from their health care provider about using a seatbelt during pregnancy.

Family Planning Fact Sheet

Between the years of 1993-2007...

The percentage of women with unintended pregnancies ranged from a high of 51.0% in 1996 to a low of 44.4% in 1999.

The percentage of unwanted pregnancies steadily decreased to a new low of 9.8% in 2007.

The percentage of women NOT using a contraceptive method postpartum decreased from 16.5% in 1999 to 13.2% in 2007.

In 2007...

Among women who experienced unintended pregnancies,

48.5% of women were not using contraception at time of conception;
51.5% reported that their contraceptive method failed.

Women that experienced unintended pregnancies were more likely to be:

black
less than 18 years of age
unmarried
on Medicaid and
at a less than a high school level of education.

From 2005 to 2007...

There was a decrease in the percentage of women entering prenatal care during the first trimester among women with mistimed pregnancies and a decrease in the percentage among women with unwanted pregnancies.

South Carolina is far from reaching the Healthy People 2010 goals of reducing the percentage of unintended pregnancies to 30% of all pregnancies (44.7% in 2007), and 40% of all pregnancies in black women (63.7% in 2007).

Family Planning - Pregnancy Intention

What Some South Carolina Mothers Have to Say about Family Planning:

'We had to do IVF to get pregnant so if I could get pregnant on my own it would be a blessing.'

"Breastfeeding should prevent pregnancy, haven't decided when/if to get pregnant again."

"I couldn't use Birth Control because, I have a heart cond."

"I had tubes tied because I can not take birth control pills"

"Not having sex right now, but going to get the shot as soon as I get an appointment."

"It took us 8 years to have our 1st child so I thought it would still be difficult."

"My husband had a vasectomy in the past. We got pregnant by using a form of IVF."

"I thank it's always best you use condoms even though your on some kind of birth control (if your not ready for kids anyway) I know doctors have told you that in the past but it won't make since till it happens to you."

"I can't use any pills, IUD, cervical ring, and I'm married, there's a religious problem with that."

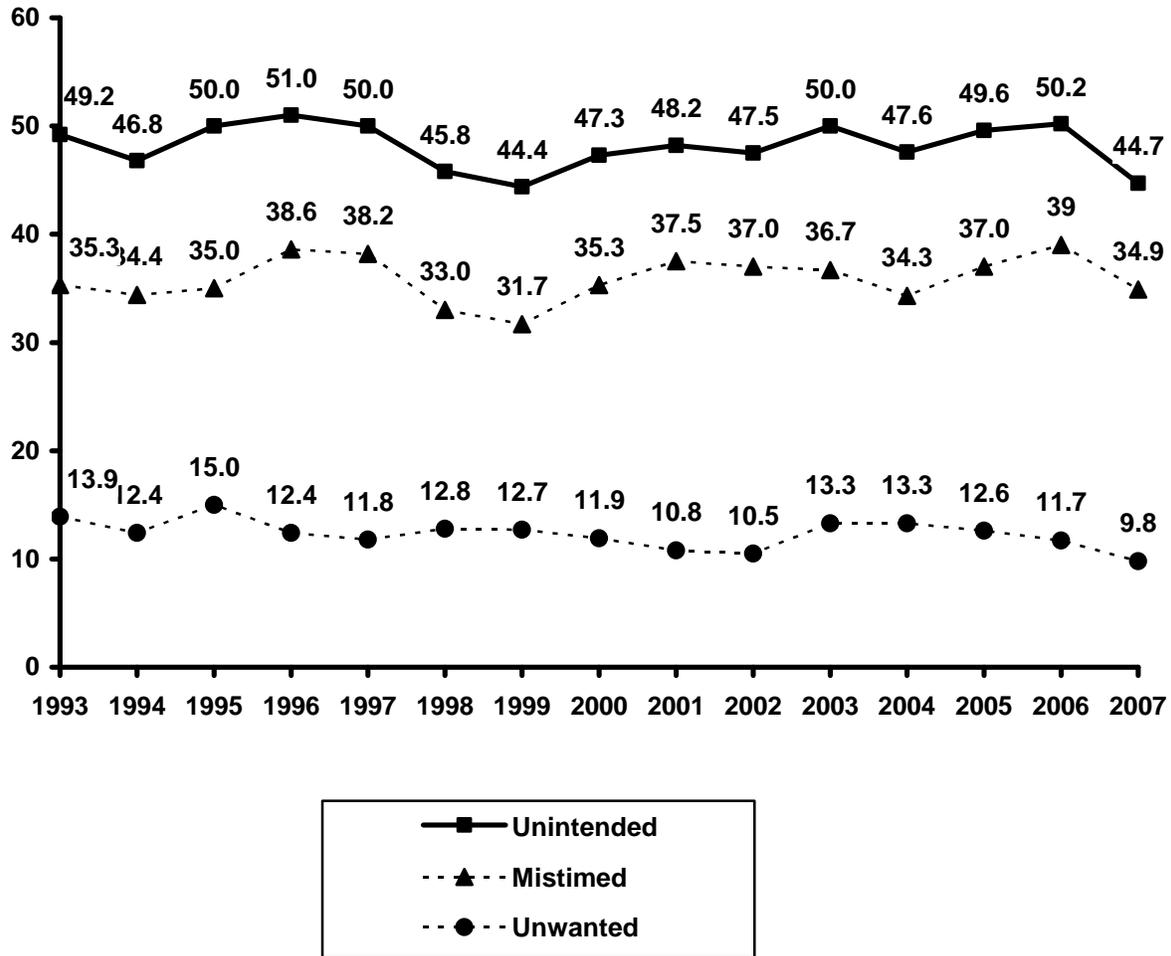
"Just didn't have the time to go get on birth control."

"We use condoms but 1 or twice my husband didn't want to wear one & a couple of times the condom broke."

"I/WE had tried so many years, until we had 'given up'"

Family Planning - Pregnancy Intention

Percent of Unintended Pregnancies*, 1993-2007



*An **unintended pregnancy** is defined as a pregnancy that is either mistimed (wanted at a later time) or unwanted (not wanted then or any time in the future).

Since 2004, the percent of unwanted pregnancies has been decreasing steadily from 13.3% to 9.8% in 2007.

Family Planning - Pregnancy Intention

Unintended Pregnancies by Maternal Characteristics, 2005-2007

Maternal Characteristics	2005 Percent (CI)*	2006 Percent (CI)*	2007 Percent (CI)*
Total	49.6 (45.6, 53.7)	50.2 (46.1, 54.3)	44.7 (40.5, 49.0)
Race			
Black	67.6 (60.7, 73.7)	63.7 (56.2, 70.5)	61.6 (53.5, 69.0)
White	39.0 (33.9, 44.3)	44.2 (39.0, 49.5)	36.2 (31.1, 41.6)
Age			
Less than 18	90.4 (74.4, 96.8)	87.1 (68.3, 95.5)	----^
18-24	65.6 (59.2, 71.5)	63.6 (56.8, 69.9)	59.2 (51.8, 66.2)
25-34	35.9 (30.3, 41.9)	39.8 (34.1, 45.9)	35.6 (30.0, 41.6)
35+	----^	30.2 (20.3, 42.4)	24.9 (16.4, 36.0)
Education			
Less than High School	69.6 (61.2, 76.9)	60.9 (52.1, 69.1)	58.7 (49.2, 67.6)
High School	50.9 (42.4, 59.3)	55.1 (46.9, 63.1)	50.4 (41.3, 59.4)
More than High School	38.9 (33.8, 44.4)	42.0 (36.6, 47.7)	36.2 (31.0, 41.8)
Marital status			
Married	34.0 (29.1, 39.3)	33.6 (28.6, 39.0)	28.7 (24.2, 33.6)
Other	69.8 (63.8, 75.2)	70.7 (64.5, 76.2)	67.2 (60.2, 73.4)
Medicaid status			
Yes	62.3 (57.0, 67.3)	64.4 (59.1, 69.4)	60.9 (54.9, 66.6)
No	30.1 (24.6, 36.3)	27.8 (22.5, 33.8)	25.7 (20.8, 31.3)
Prenatal Care^^			
Inadequate	79.4 (68.4, 87.3)	63.1 (52.9, 72.2)	52.9 (42.9, 62.6)
Intermediate	----^	----^	----^
Adequate	44.2 (37.1, 51.5)	40.1 (33.0, 47.7)	36.5 (28.8, 44.9)
Adequate Plus	47.5 (41.3, 53.7)	52.5 (46.0, 58.8)	45.7 (39.3, 52.3)
Birthweight**			
VLBW (<1500)	48.5 (46.2, 50.9)	55.0 (52.7, 57.4)	52.3 (49.7, 55.0)
MLBW (1500-2499 g)	53.6 (48.9, 58.3)	55.1 (50.5, 59.7)	56.1 (50.2, 61.9)
NBW (2500+ g)	49.3 (44.9, 53.8)	49.7 (45.2, 54.2)	43.7 (39.1, 48.4)

*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

^^Prenatal Care as measured by the Kotelchuck prenatal care index.

**Note: In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Family Planning - Pregnancy Intention

Contraceptive Behavior Among Women With Unintended Pregnancies, 2007

Maternal Characteristics	Non-use** Percent (CI)*	Failed Use** Percent (CI)*
Total	48.5 (41.6, 55.6)	51.5 (44.5, 58.4)
Race		
Black	44.3 (33.7, 55.4)	55.7 (44.6, 66.3)
White	53.7 (43.9, 63.2)	46.3 (36.8, 56.1)
Age		
Less than 18	----^	----^
18-24	52.3 (42.2, 62.3)	47.7 (37.7, 57.8)
25-34	42.9 (32.5, 54.1)	57.1 (45.9, 67.6)
35-55	----^	----^
Education		
Less than HS	49.9 (37.0, 62.9)	50.1 (37.1, 63.0)
High School	59.7 (45.7, 72.4)	40.3 (27.7, 54.3)
More than HS	40.8 (31.3, 57.1)	59.2 (48.9, 68.7)
Marital status		
Married	48.7 (38.3, 59.2)	51.3 (40.8, 61.8)
Other	48.5 (39.5, 57.6)	51.5 (42.4, 60.6)
Medicaid status		
Yes	51.1 (42.8, 59.4)	48.9 (40.6, 57.2)
No	41.3 (29.5, 54.2)	58.7 (45.8, 70.5)

*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

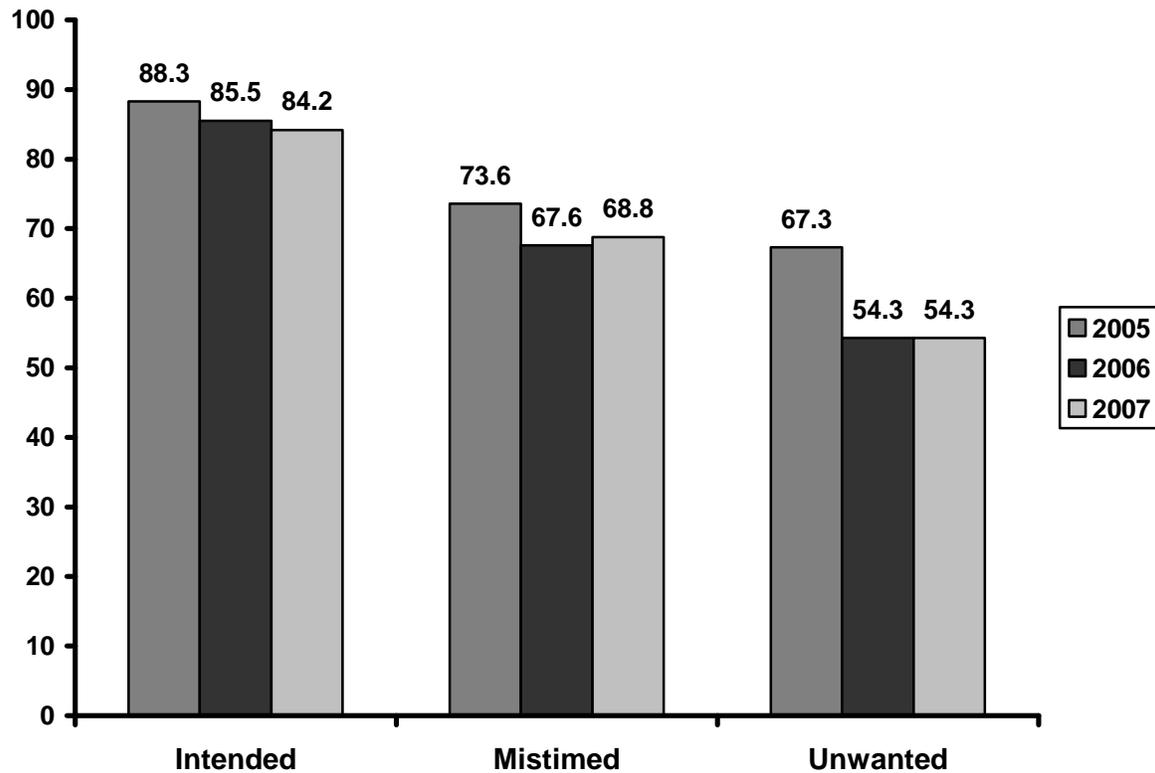
**Definitions:

Failed Use: Woman was using contraception when she got pregnant.

Non-use: Woman was not using contraception when she got pregnant.

Family Planning - Pregnancy Intention

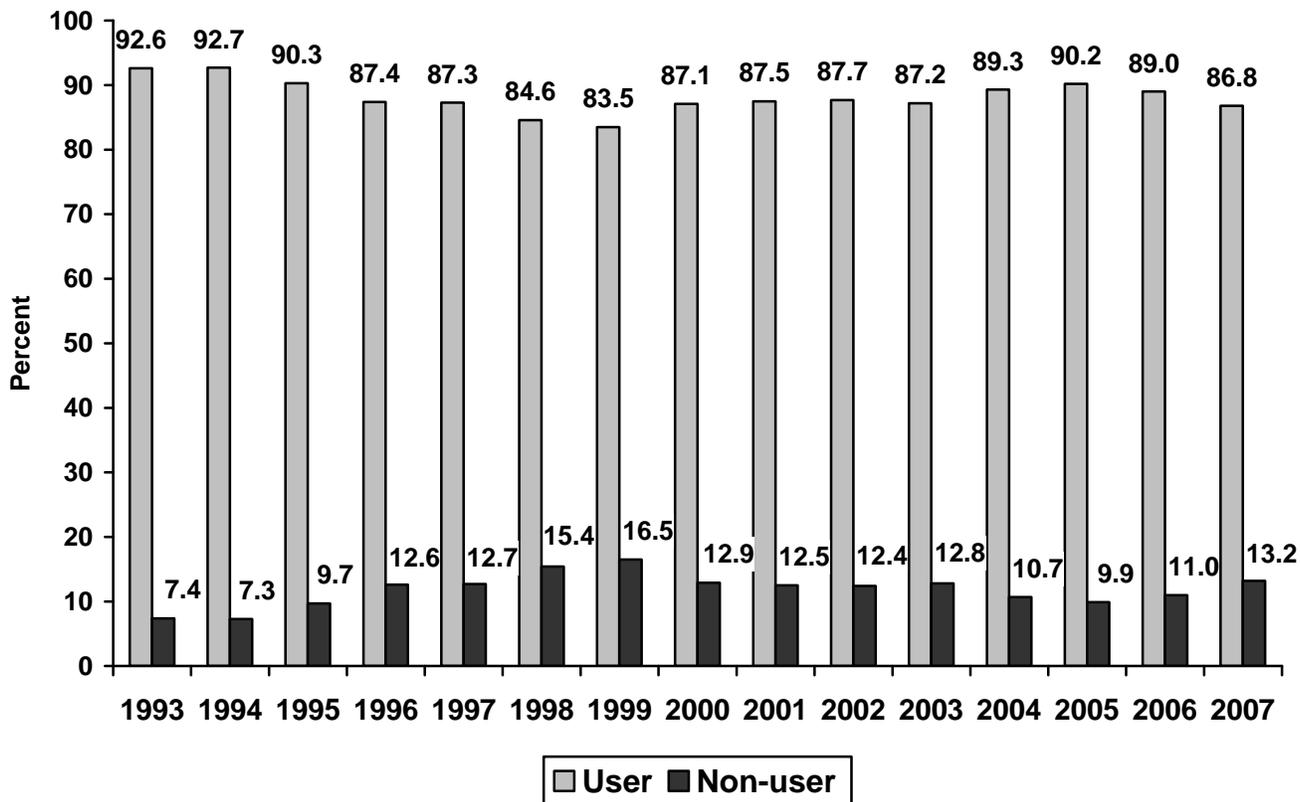
**Percentage of Women Who Entered Prenatal Care in the First Trimester
(weeks 1-12) by Pregnancy Intention: 2005-2007**



Between 2005-2007, 84.2% to 88.3% of women who wanted their pregnancies to occur then or sooner received prenatal care during the first trimester of pregnancy.

Family Planning - Postpartum Contraception

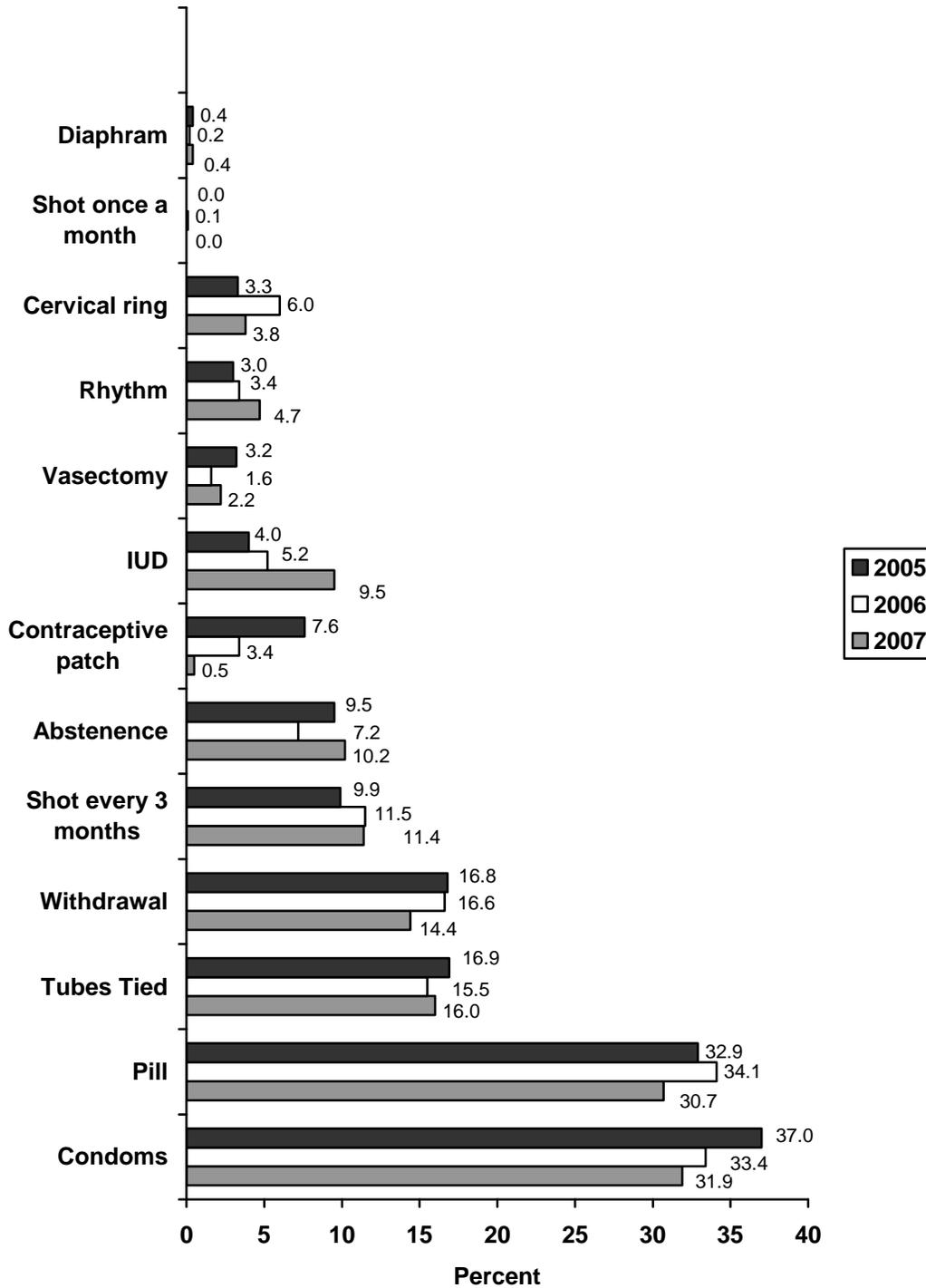
Postpartum Birth Control, 1993-2007



The proportion of women not using contraception after delivery increased from a low of 7.3% in 1994 to a high of 16.5% in 1999, and has declined to 13.2% in 2007.

Family Planning - Postpartum Contraception

Postpartum Birth Control Methods*, 2005-2007



*Contraceptive methods are not mutually exclusive.

Smoking Fact Sheet

Between the years of 1993-2007...

The percentage of women smoking during the last trimester of pregnancy fell from 15.9% in 1993 to a low of 11.4% in 2003, but has since risen to 12.4% in 2007.

The percentage of women who quit smoking during pregnancy decreased from 54.0% in 1999 to 43.8% in 2007.

The percentage of women who quit smoking during pregnancy and remained nonsmokers after delivery has increased from 17.4% in 1993 to a high of 29.2% in 2006, but has since fallen back to 17.4% in 2007.

Between the years of 2005 and 2007...

The percentage of women who smoked during the last trimester decreased overall, but increased among mothers who were less than 18 years of age, mothers that had a high school education and mothers who gave birth to moderately low birth weight babies.

In 2007, women who reported smoking during the last trimester of pregnancy were more likely to:

- be white
- be 18-24 years of age
- be on Medicaid
- have less than a high school education and
- have a moderately low birth weight infant.

We have not yet reached the Healthy People 2010 goal to increase abstinence from tobacco by pregnant women to 99%. In 2007, nearly 88% of mothers abstained from smoking during pregnancy.

What Some South Carolina Mothers Have to Say about Smoking:

“They didn't tell me how drinking, smoking, & illegal drugs would affect the baby. They just said it was bad.”

“Did not ask me about smoking or drinking because the questionnaire I filled out stated I did not smoke ever or drink during pregnancy.”

“The cost of products to help quit smoking are very expensive, maybe there can be some cost-effective assistance to those who need it.”

“Your unborn child can't take care of his/herself, it's up to you. ... Most importantly take care of your body, NO DRUGS, NO SMOKING, NO DRINKING...”

“When they tell you to quit smoking, do what the doctor tells you to do.”

“Stopped smoking the day I found out I was pregnant.”

“Don't drink or smoke during pregnancy”

“I think that women should be more informed on the risks of drinking alcohol, smoking, and doing drugs during pregnancy...”

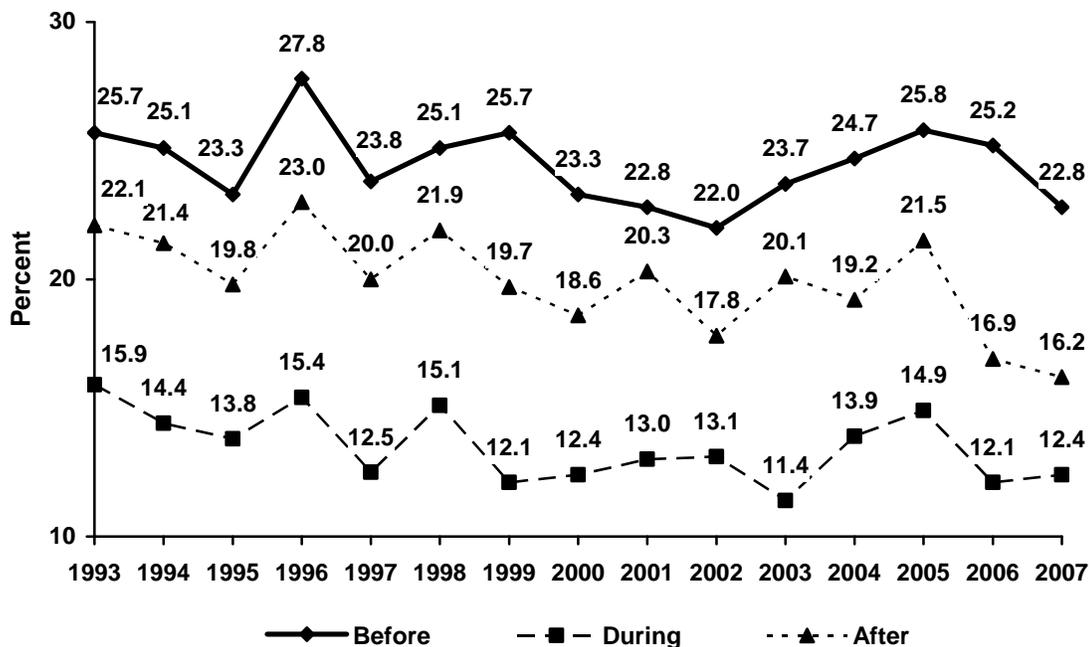
“Do not smoke when you're having a baby, it can make your baby have problems. Thank you.”

“My father smokes & she is only around it when we visit.”

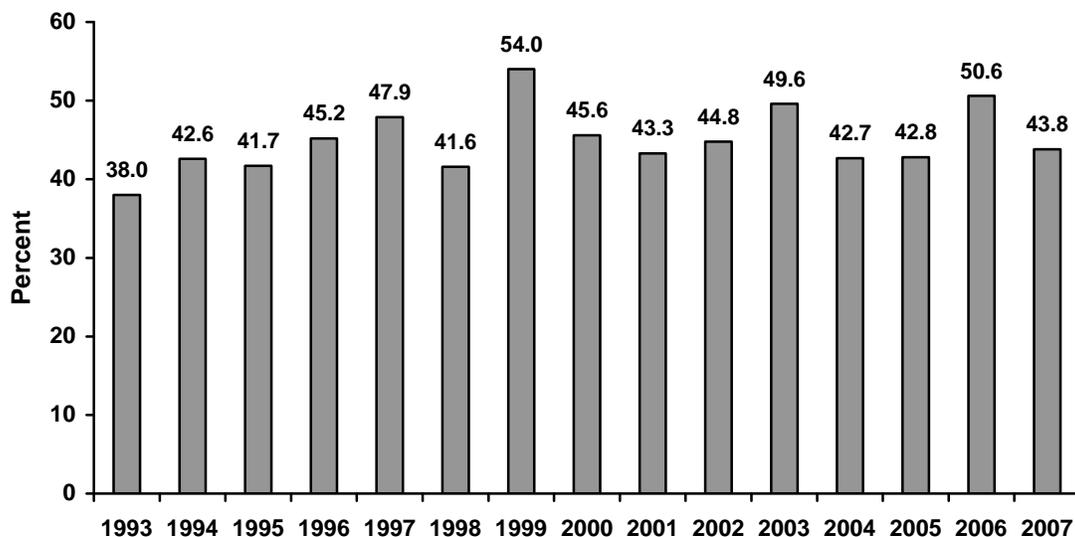
“I feel that second hand smoke is very harmful to infants even as it is to adults. There should be a law about smoking near infants in public. Ex-restaurants.”

Cigarette Use

Proportion of Women Who Smoked Cigarettes 3 Months Before Pregnancy, During the Last Trimester, and During the 3-6 Months After Delivery, 1993-2007



Proportion of Smokers Who Quit Smoking While Pregnant, 1993-2007



**Characteristics of Women Who Smoked Cigarettes During the
Three Months Before Pregnancy, 2005-2007**

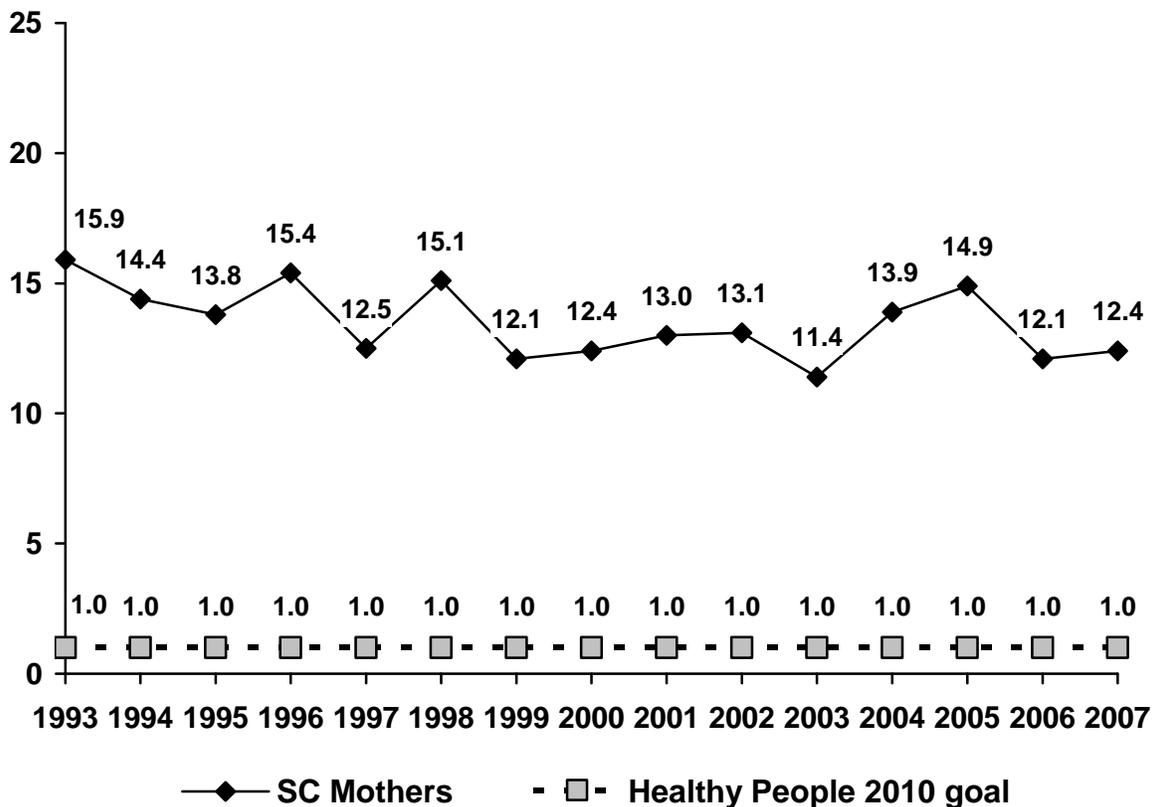
Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	25.8 (22.3, 29.5)	25.2 (21.8, 28.9)	22.8 (19.4, 26.6)
Race			
Black	10.7 (7.1, 15.9)	14.8 (10.1, 21.0)	15.0 (10.1, 21.7)
White	37.7 (32.7, 43.0)	35.2 (30.3, 40.4)	30.2 (25.4, 35.4)
Age			
Less than 18	----^	----^	----^
18-24	34.5 (28.6, 40.9)	26.6 (20.8, 32.6)	30.7 (24.3, 37.2)
25-34	22.0 (17.4, 27.5)	27.0 (22.0, 32.7)	19.5 (15.2, 24.6)
35-55	----^	----^	----^
Education			
Less than High School	32.7 (25.2, 41.2)	29.1 (21.9, 37.7)	35.3 (26.7, 44.9)
High School	36.2 (28.4, 44.8)	26.8 (20.4, 34.4)	24.9 (18.1, 33.2)
More than High School	17.2 (13.5, 21.6)	22.4 (18.0, 27.5)	16.8 (13.0, 21.4)
Marital status			
Married	22.3 (18.1, 27.1)	18.9 (15.1, 23.4)	19.2 (15.4, 23.7)
Other	30.3 (24.9, 36.4)	32.6 (18.0, 27.5)	27.7 (21.9, 34.5)
Medicaid			
Yes	31.3 (26.6, 36.4)	29.7 (25.1, 34.9)	28.9 (23.8, 34.6)
No	17.3 (12.9, 22.6)	18.1 (13.8, 23.4)	15.5 (11.5, 20.5)
Birthweight**			
VLBW (<1500 g)	24.9 (22.9, 27.0)	22.9 (21.0, 25.0)	24.7 (22.5, 27.1)
MLBW (1500-2499 g)	24.8 (20.9, 29.2)	31.8 (27.6, 36.2)	30.3 (24.1, 37.3)
NBW (2500+ g)	25.9 (22.1, 30.0)	24.7 (21.1, 28.8)	22.1 (18.5, 36.3)

*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

****Note:** In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Proportion of Mothers Who Smoked Cigarettes During the Last Trimester of Pregnancy, 1993-2007



The proportion of women who smoked during the last trimester has increased from 11.4% in 2003 to 14.9% in 2005, but fell to 12.4% in 2007.

In 2007, women who reported smoking during the last trimester of pregnancy were more likely to:

- be white
- be 18-24 years of age
- be on Medicaid
- have less than a high school education and
- have a moderately low birth weight infant.

**Characteristics of Mothers Who Smoked Cigarettes
During the Last Trimester of Pregnancy, 2005-2007**

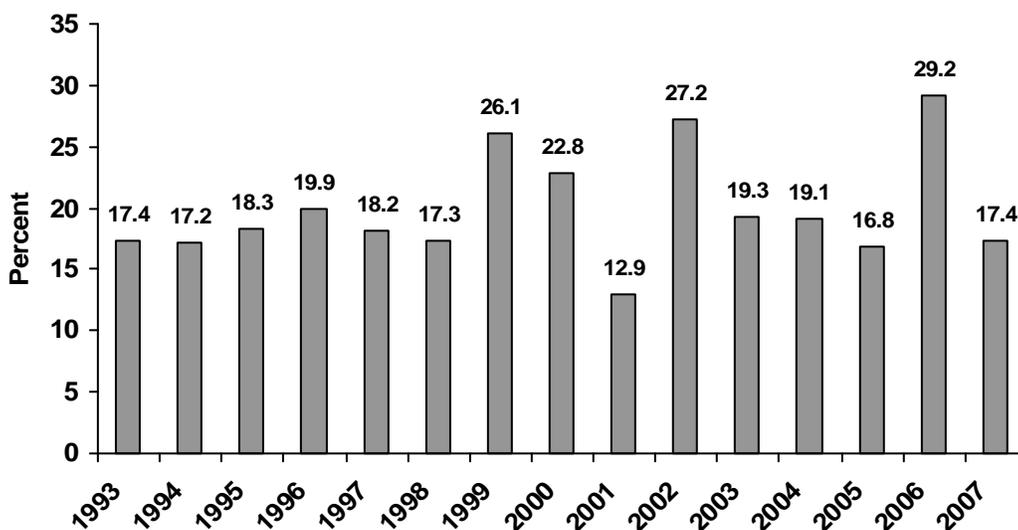
Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	14.9 (12.2, 18.1)	12.1 (9.8, 15.0)	12.4 (9.8, 15.6)
Race			
Black	----^	----^	8.5 (4.9, 14.4)
White	22.4 (18.2, 27.3)	17.6 (13.9, 21.9)	16.8 (12.9, 21.4)
Age			
Less than 18	----^	----^	----^
18-24	20.7 (15.9, 26.5)	13.8 (9.9, 18.9)	19.3 (14.0, 26.0)
25-34	11.8 (8.4, 16.4)	12.0 (8.7, 16.4)	9.1 (6.2, 13.3)
35-55	----^	----^	----^
Education			
Less than High School	24.7 (18.0, 32.9)	16.5 (11.0, 24.0)	25.4 (17.8, 34.9)
High School	20.0 (14.1, 27.6)	15.5 (10.8, 21.7)	14.8 (9.5, 22.2)
More than High School	7.6 (5.2, 10.9)	8.1 (5.6, 11.7)	6.1 (3.9, 9.3)
Marital status			
Married	11.9 (8.8, 15.9)	7.6 (5.2, 10.9)	9.6 (6.9, 13.2)
Other	18.8 (14.4, 24.2)	17.3 (13.1, 22.4)	16.4 (11.7, 22.4)
Medicaid			
Yes	20.7 (16.7, 25.4)	15.9 (12.4, 20.0)	18.5 (14.3, 23.7)
No	----^	----^	----^
Birthweight**			
VLBW (<1500 g)	15.3 (13.7, 17.1)	13.7 (12.2, 15.5)	14.1 (12.3, 16.1)
MLBW (1500-2499 g)	15.7 (12.6, 19.5)	21.8 (18.1, 25.9)	19.8 (13.9, 27.4)
NBW (2500+ g)	14.8 (11.9, 18.4)	11.3 (8.8, 14.5)	11.8 (9.0, 15.3)

*95% Confidence Interval

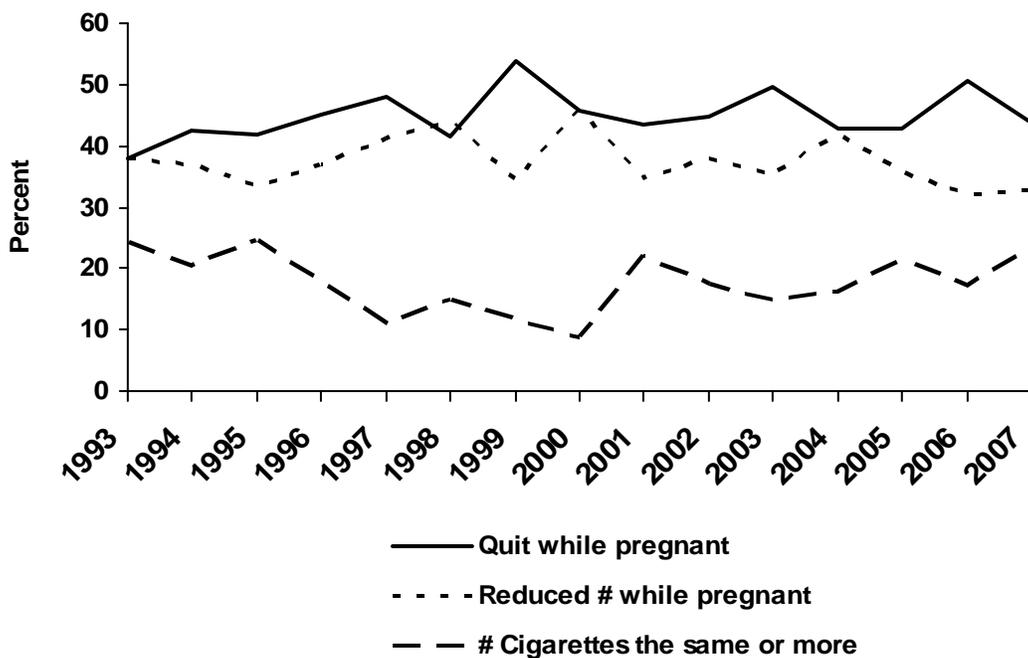
^Cell contains less than 50 respondents; data not shown

****Note:** In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Proportion of Smokers Who Quit Smoking While Pregnant and Remained Non-Smokers after Delivery, 1993-2007



Smoking Behavior During Pregnancy Among Women Who Were Smokers Before Pregnancy, 1993-2007



Alcohol Consumption Fact Sheet

Between the years of 1993-2007...

The percent of women drinking in the three months before pregnancy has fluctuated around 40% since 1993. The percent of women drinking in the three months before pregnancy reached a high of 46.3% in 2006, but dropped to 44.1% in 2007.

In 2007, women who reported drinking during the three months prior to pregnancy were more likely to:

- be white
- be 25 years of age or older
- be married
- have a greater than high school education and not be on Medicaid.

The percentage of women who reported drinking alcohol in the last trimester of pregnancy fell from a high of 6.3% in 1993 to a low of 3.2% in 2000, but has since risen to 7.0% in 2007. In 2004 the percent of SC mothers who drank during the last trimester rose to 6.2%, above the 2010 Healthy People goal of 6% for the first time since 1993, dropped below the goal again in 2005, and rose back above the goal to 7.8% in 2006 and remained above the goal in 2007 at 7.0%.

In 2007, of the women who drank in the last three months of pregnancy, 94.6% drank fewer than 4 drinks per week.

Alcohol Consumption

What Some South Carolina Mothers Have to Say about Alcohol:

“I only drank on the weekends and not every weekend.”

“They didn't tell me how drinking, smoking, & illegal drugs would effect the baby. They just said it was bad”

“I know that my baby was born 7 weeks early, but she's very healthy now, I didn't smoke or drink during or before my baby, just try to keep your doctors appointments and eat right, and do the right thing.”

“Did not ask me about smoking or drinking because the questionnaire I filled out stated I did not smoke ever or drink during pregnancy.”

“I used drugs & alcohol up until my 7 month of pregnancy until I went off to rehab, I have been sober now for 7 months...”

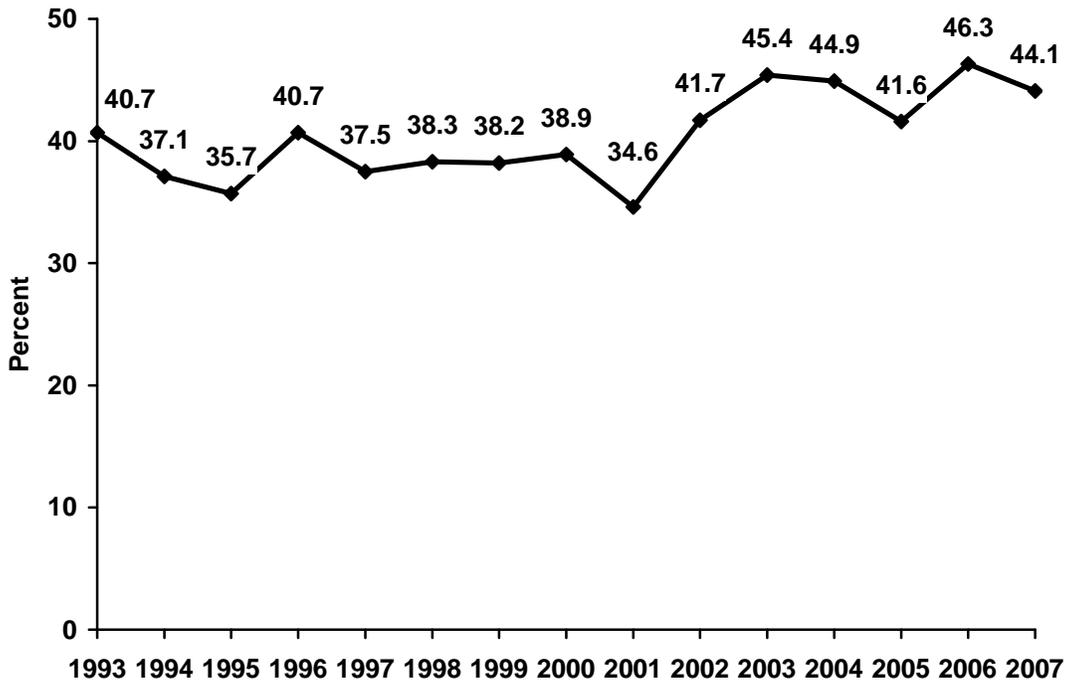
“Do not do drugs are drink alcohol during pregnancy because you could have problems with your babies during that time.

“Weekend drinking’ before pregnancy.”

“I drank when I was a couple weeks pregnant & did not know it.”

Alcohol Consumption

Proportion of Women Who Drank During the Three Months Before Pregnancy, 1993-2007



Women who reported drinking during the three months prior to pregnancy were more likely to:

- be white
- be 25 years of age or older
- be married
- have a greater than high school education and
- not be on Medicaid.

Alcohol Consumption

Characteristics of Mothers Who Drank Alcohol During the Three Months Before Pregnancy, 2005-2007

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	41.6 (37.7, 45.6)	46.3 (42.3, 50.4)	44.1 (40.0, 48.3)
Race			
Black	25.8 (20.3, 32.2)	31.0 (24.5, 38.4)	34.7 (27.5, 42.8)
White	55.4 (50.1, 60.6)	60.4 (55.1, 65.4)	53.0 (47.7, 58.3)
Age			
Less than 18	----^	----^	----^
18-24	38.9 (32.9, 45.3)	40.4 (33.8, 47.3)	39.0 (32.0, 46.4)
25-34	46.0 (40.1, 52.1)	52.0 (46.0, 57.9)	49.2 (43.4, 55.1)
35-55	48.1 (36.6, 59.9)	50.7 (39.2, 62.2)	50.2 (39.2, 61.1)
Education			
Less than High School	22.7 (16.2, 30.7)	29.0 (21.7, 37.6)	24.7 (17.3, 34.0)
High School	40.6 (32.6, 49.1)	41.9 (34.1, 50.3)	37.5 (29.3, 46.5)
More than High School	51.6 (46.2, 56.9)	57.1 (51.5, 62.5)	55.7 (50.2, 61.0)
Marital status			
Married	46.9 (41.6, 52.2)	50.0 (44.7, 55.4)	49.4 (44.3, 54.5)
Other	35.0 (29.4, 41.0)	41.7 (35.5, 48.2)	36.6 (30.0, 43.7)
Medicaid			
Yes	35.1 (30.3, 40.2)	39.0 (33.9, 44.4)	35.1 (29.6, 41.0)
No	51.7 (45.5, 58.0)	57.7 (51.1, 63.7)	54.6 (48.8, 60.4)
Birthweight**			
VLBW (<1500 g)	38.5 (36.3, 40.8)	40.1 (37.8, 42.4)	37.5 (35.0, 40.0)
MLBW (1500-2499 g)	37.1 (32.6, 41.8)	41.0 (36.6, 45.6)	46.1 (39.9, 52.4)
NBW (2500+ g)	42.1 (37.8, 46.5)	46.9 (42.4, 51.4)	44.1 (39.6, 48.7)

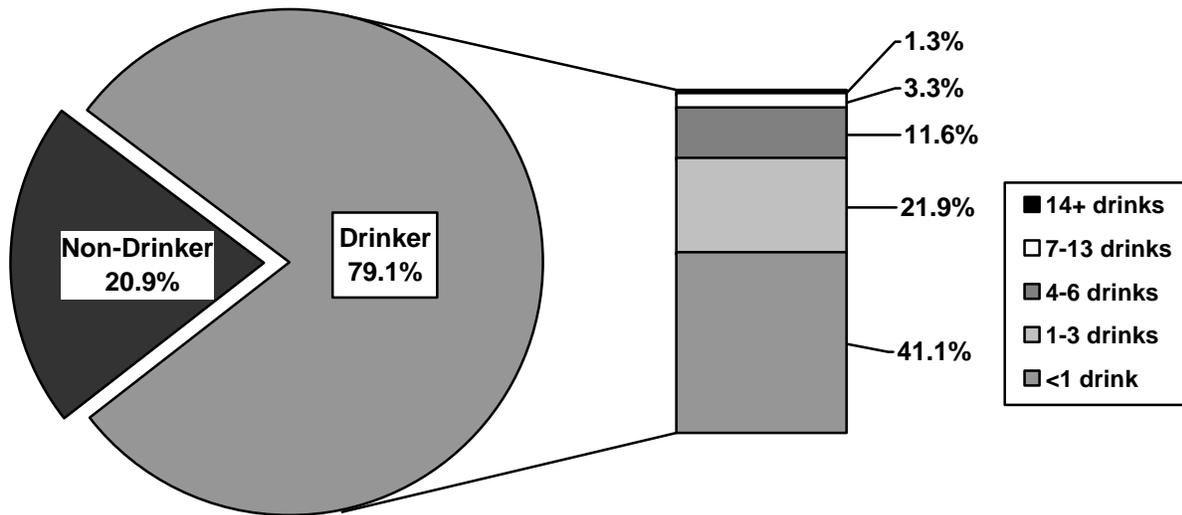
*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

****Note:** In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Alcohol Consumption

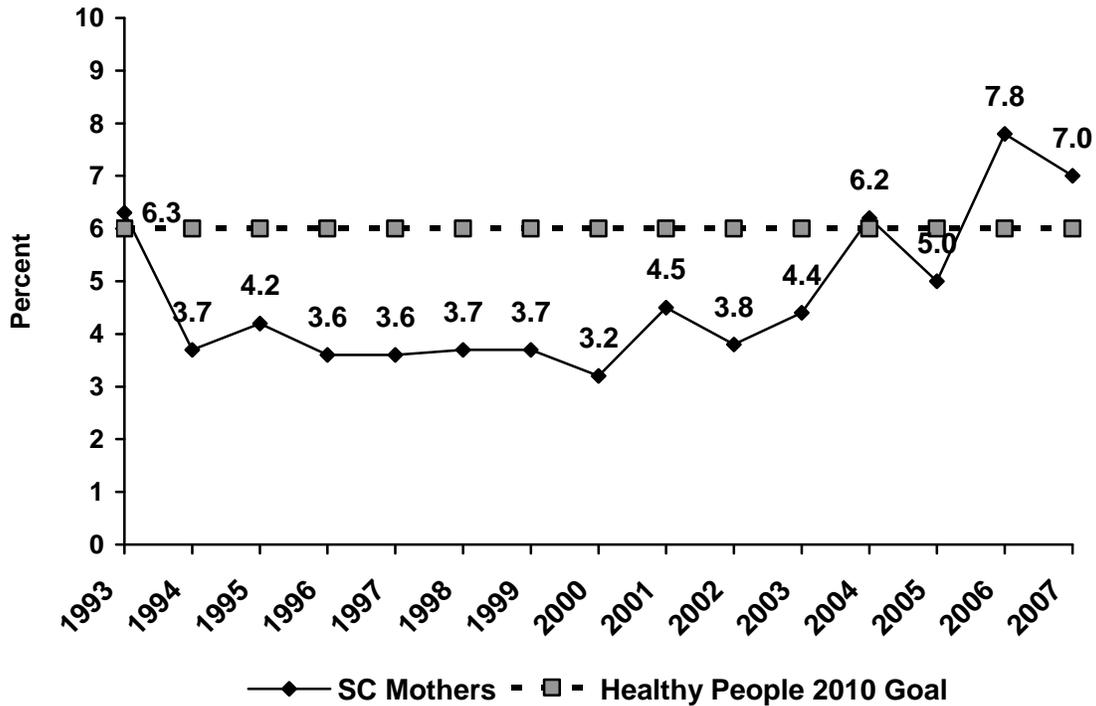
Number of Drinks Consumed Per Week During the Three Months Before Pregnancy, 2007



In 2007, 79.1% of women drank in the three months before they became pregnant. Of those, 51.9% had less than one drink per week, and 20.5% had four or more drinks per week.

Alcohol Consumption

Percent of Mothers Who Drank Alcohol During the Last Trimester of Pregnancy, 1993-2007



The percentage of women who reported drinking alcohol in the last trimester of pregnancy fell from a high of 6.3% in 1993 to a low of 3.2% in 2000, but has since risen to 7.0% in 2007.

In 2004 the percent of SC mothers who drank during the last trimester rose to 6.2%, above the 2010 Healthy People goal of 6.0% for the first time since 1993, dropped below the goal again in 2005, rose above the goal again to 7.8% in 2006, and remained above the goal in 2007 at 7.0%.

In 2007, almost all women who drank during the last trimester drank three or fewer drinks per week (94.6%).

Stressful Life Events Fact Sheet

In 2007...

Over 21% of women experienced four or more stressful life events in the 12 months before delivery.

Compared to white women, a greater proportion of black women experienced most of the stressful life events listed on the survey. Especially large differences were noted in the following areas:

- argued more with husband/partner (42.7% black vs. 25.6% white)
- someone close died (34.5% black vs. 18.9% white)
- separated or divorced from husband (17.0% black vs. 6.2% white)
- in a physical fight (7.9% black vs. 3.1% white)

In 2007, the most common stressful life events experienced by both black and white women included:

- arguing more with husband/partner
- moving to a new address
- having a family member hospitalized
- having bills she could not pay and
- someone close to the mother died.

In 2007, women who reported experiencing four or more stressful like events in the 12 months before delivery were more likely to:

- be black
- be 18-24 years of age
- have less than a high school education
- be unmarried and
- be on Medicaid.

What Some South Carolina Mothers Have to Say About Stress and Stressful Life Events:

“Professional counseling for mothers in my situation [deceased child] should be affordable because I could use it if it was.”

“There needs to be more specialized care, support, classes, etc. for parents of Multiples, as well as for individuals going through and pregnant by fertility procedures.”

“I think they need to have a tweaked system to cater more to the mother during the entire pregnancy and make more info available for transportation educational classes and services for mothers with postpartum depression or loss of child due to adoption.”

“Support groups for women in general to talk to other women and discuss problems and share stories.”

“I think there should be more places to go for pregnant women to talk and ask questions. A woman can get really depressed during a pregnancy and doctors who always say they are the ones who are too busy; so you don't feel comfortable bothering them.”

“I believe that stress can be a major factor in affecting an unborn child. Many mothers have issues that take a toll on their bodies.”

“When you are a High Risk Pregnancy you should watch how much you are walking (and) the amount of stress you take on. Example- cleaning the whole house, figuring out the bills, etc. ...”

“The birthing, breastfeeding and parenting classes should be offered free of charge due to the cost or lower the rate.”

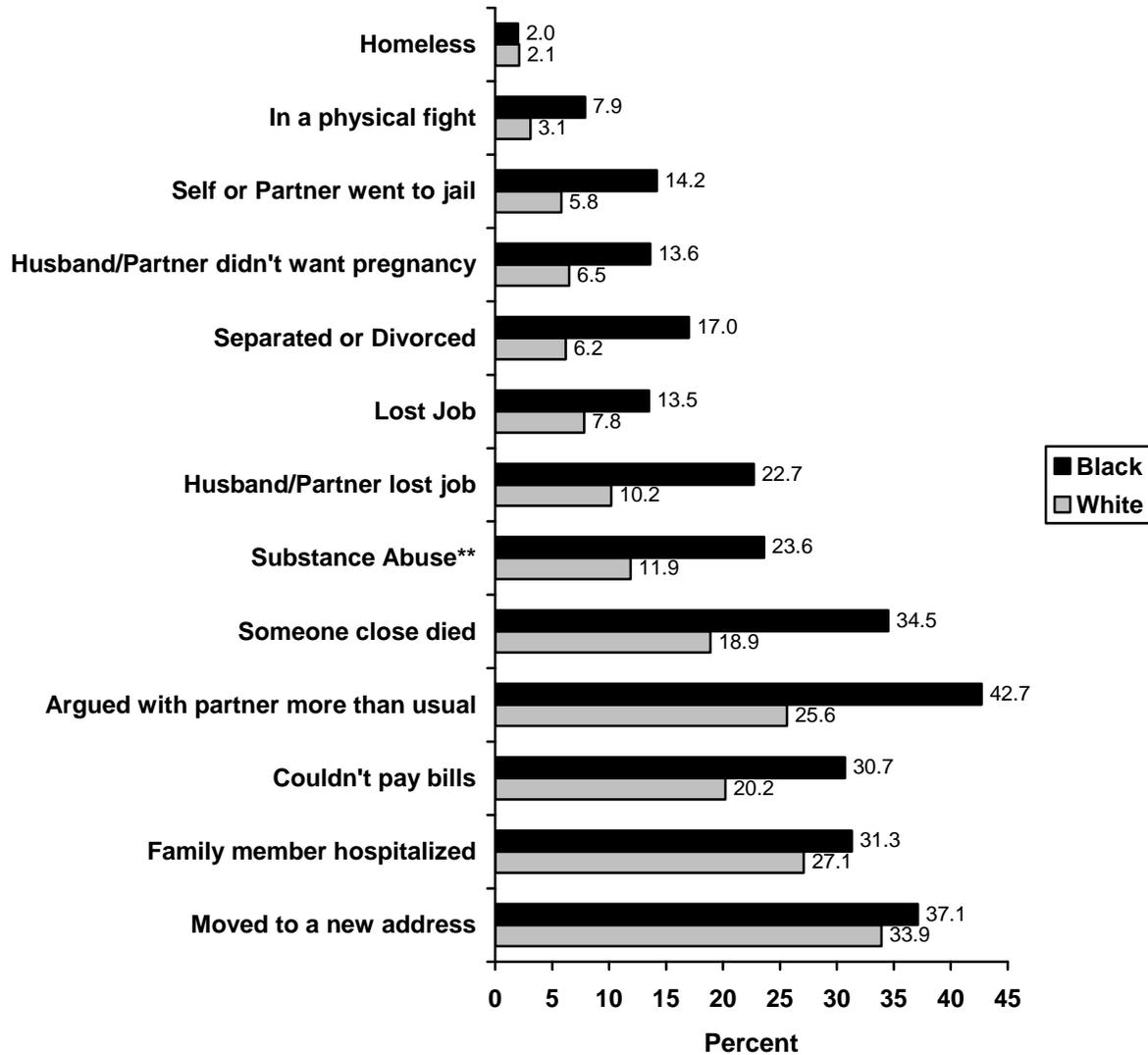
“Please try their best to remain stress free for the sake of the child and her. If they are stressed that could lead to high blood pressure, which can lead to the death of both mother & child.”

“I feel that stress during pregnancy is a big factor in the health and well-being of mother and baby. There should be more classes out in communities offered to partners, spouses on how to deal with the emotional, physical, and financial changes during and after pregnancy.”

“I think that there are more women who go through post partum depression than what is reported. Also there should be a group or something like classes that women can go to...”

Stressful Life Events

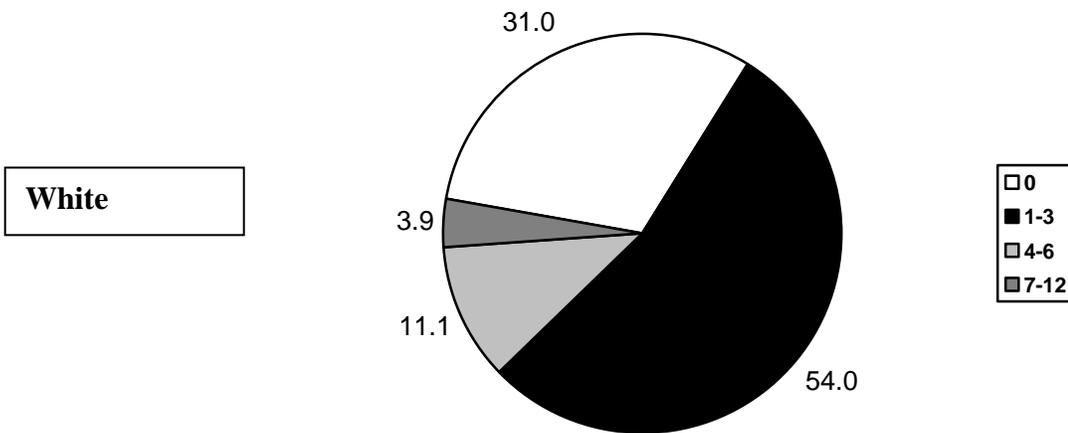
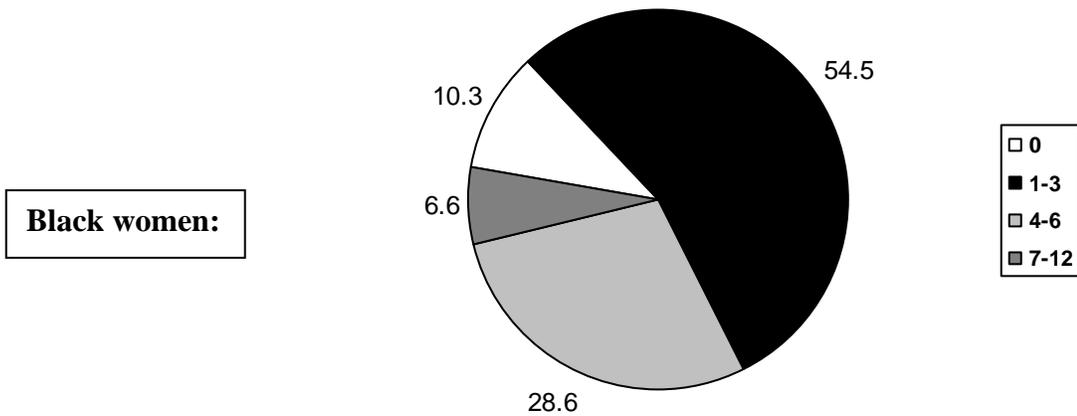
Proportion of Women Who Experienced Stressful Life Events in the Twelve Months Prior to Delivery, 2007



**Someone close to the woman had a drinking or drug problem.

Stressful Life Events

Number of Stressful Life Events Experienced in the Twelve Months Prior to Delivery by Race, 2007



Stressful Life Events

Characteristics of Women Experiencing High Levels of Stress**, 2005-2007

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	21.9 (18.8, 25.4)	23.9 (20.6, 27.7)	21.1 (17.8, 24.9)
Race			
Black	25.1 (19.6, 31.5)	31.6 (25.0, 38.9)	34.1 (27.0, 42.1)
White	21.1 (17.1, 25.8)	19.8 (15.9, 24.4)	14.8 (11.3, 19.1)
Age			
Less than 18	----^	----^	----^
18-24	30.4 (24.8, 36.5)	28.8 (23.0, 35.4)	28.2 (22.0, 35.3)
25-34	16.9 (12.9, 21.9)	21.9 (17.2, 27.3)	16.8 (12.7, 21.9)
35-55	----^	----^	----^
Education			
Less than High School	30.5 (23.3, 38.9)	28.5 (21.3, 36.9)	34.6 (26.2, 44.2)
High School	24.5 (18.1, 32.4)	28.4 (21.6, 36.3)	22.4 (15.8, 30.8)
More than High School	16.4 (12.8, 20.7)	19.3 (15.1, 24.2)	14.5 (11.0, 19.0)
Marital status			
Married	12.8 (9.6, 16.8)	16.0 (12.3, 20.5)	13.4 (10.3, 17.4)
Other	33.6 (28.1, 39.6)	33.8 (28.0, 40.1)	31.8 (25.6, 38.7)
Medicaid			
Yes	31.1 (26.5, 36.2)	33.3 (28.4, 38.6)	31.5 (26.2, 37.3)
No	7.7 (5.0, 11.7)	9.2 (6.1, 13.7)	8.7 (5.8, 12.7)
Birthweight***			
VLBW (<1500 g)	24.8 (22.9, 26.9)	25.8 (23.9, 27.9)	22.5 (20.4, 24.8)
MLBW (1500-2499 g)	26.0 (22.1, 30.4)	29.1 (25.1, 33.5)	30.3 (24.2, 37.2)
NBW (2500+ g)	21.5 (18.1, 25.4)	23.5 (19.8, 27.6)	20.3 (16.7, 24.5)

* 95% Confidence Interval

** High Levels of Stress categorized as four or more stressful life events

^Cell contains less than 50 respondents; data not shown

*****Note:** In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Physical Abuse Fact Sheet

During the years of 1993-2001, the percentage of women delivering liveborn infants that were physically abused during pregnancy by their husband or partner decreased from 5.3% to 3.1%.

In 2002, the rate of partner abuse during pregnancy in SC spiked to 5.7%, but has since decreased to 2.8% in 2007.

In 2004, the rate dropped below the Healthy People 2010 goal of 2.7% for the first time when it reached 2.2%. The rate rose back above the Healthy People 2010 goal in 2005 and remains above the goal in 2007 (2.8%).

In 2007...

6.5% of women were physically abused by someone before they became pregnant, and 3.5% of women were physically abused by someone during their pregnancy.

7.0% of women were physically abused before or during pregnancy by an intimate partner (husband or partner) or an ex-intimate partner. Among black women, 10.0% were physically abused before or during pregnancy by an intimate partner or ex-intimate partner. Among white women, 5.8% were physically abused before or during pregnancy by an intimate partner or ex-intimate partner.

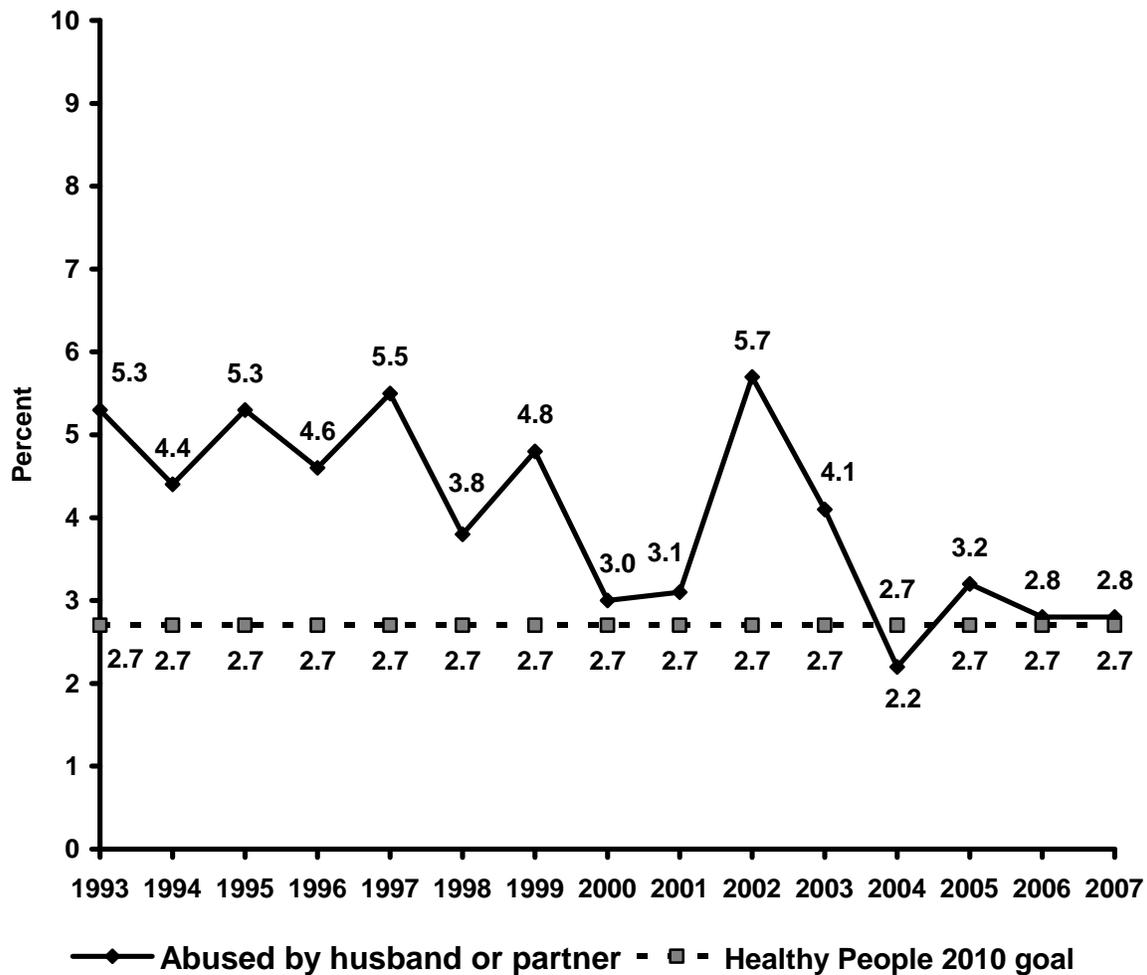
What Some South Carolina Mothers Have to Say about Physical Abuse:

“He pushed me. I didn't know at the time that I was pregnant.”

“My baby girl was taken from me 3 days after she was born due to a domestic violence issue. She is now 4 months old I get weekends w/her in my home and hope to regain custody soon.”

Physical Abuse

Percent of Women Who Were Physically Abused by Husband/Partner During Pregnancy, 1993-2007



Between the years of 1993 and 2007, the rate of physical abuse by husband or partner during the pregnancy decreased from 5.3% in 1993 to 2.8% in 2007.

In 2004, the rate dropped below the Healthy People 2010 goal of 2.7% for the first time when it reached 2.2%, but was just above the goal in 2007 at 2.8%.

Physical Abuse

Characteristics of Women Who Were Physically Abused Before or During Pregnancy by Husband/Partner or Ex-Husband/Ex-Partner, 2005-2007

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	7.9 (6.0, 10.4)	9.5 (7.3, 12.4)	7.0 (5.1, 9.6)
Race			
Black	12.4 (8.4, 17.9)	15.6 (10.6, 22.2)	10.0 (6.1, 16.0)
White	6.6 (4.4, 9.9)	6.2 (4.1, 9.3)	5.8 (3.7, 8.9)
Age			
Less than 18	----^	----^	----^
18-24	10.3 (7.0, 15.0)	13.6 (9.5, 19.1)	10.9 (7.1, 16.5)
25-34	----^	7.8 (4.9, 12.1)	5.7 (3.4, 9.3)
35-55	----^	----^	----^
Education			
Less than High School	12.0 (7.5, 18.9)	13.1 (8.3, 20.1)	----^
High School	----^	----^	----^
More than High School	----^	----^	----^
Marital status			
Married	----^	----^	----^
Other	13.7 (9.9, 18.6)	15.4 (11.2, 20.8)	12.8 (8.9, 18.3)
Medicaid			
Yes	12.1 (9.0, 16.0)	14.6 (11.1, 19.0)	10.5 (7.4, 14.8)
No	----^	----^	----^
Birthweight**			
VLBW (<1500 g)	8.8 (7.5, 10.3)	9.8 (8.4, 11.3)	10.5 (8.9, 12.3)
MLBW (1500-2499 g)	----^	----^	----^
NBW (2500+ g)	----^	----^	----^

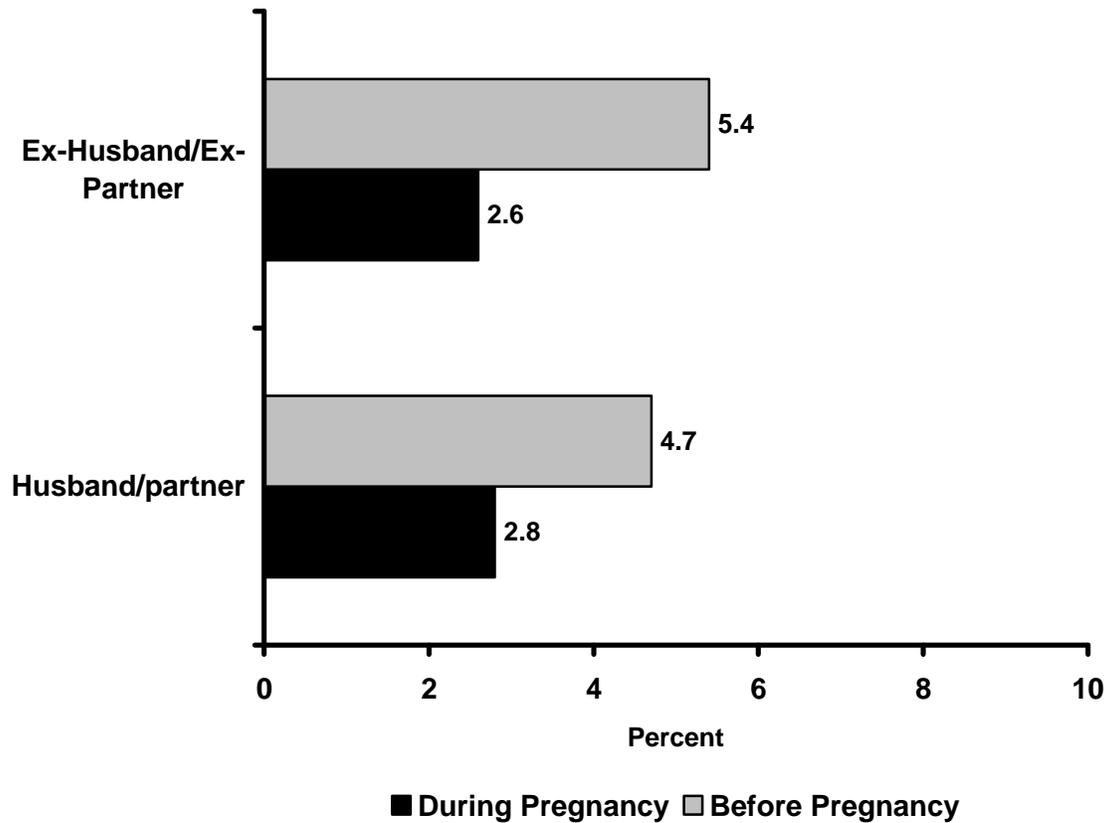
*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

****Note:** In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Physical Abuse

**Physical Abuse Before and During Pregnancy
by Perpetrator, 2007**



In 2007, the women in our sample were more likely to be abused **before** their pregnancy by an ex-husband or ex-partner than by a current husband or partner.

In general, more women were physically abused before pregnancy than during pregnancy.

Maternal Health Fact Sheet

Between the years of 1993-2007...

The proportion of women hospitalized during pregnancy, before delivery, remained fairly steady at about 19-23% from 1993 through 2003, and then increased to 28.2% - 29.4% from 2004 to 2006. In 2007 the proportion fell back down to 22.6%.

In 2007, the majority of women who were hospitalized for maternal complications during pregnancy stayed less than one day (60.8%). However, 7.5% were hospitalized for more than seven days.

In 2007, the three most common problems during pregnancy were
severe nausea, vomiting or dehydration
preterm or early labor and
kidney or bladder (urinary tract) infection.

The mean hospital stay for mothers after delivery increased from 2.5 nights in 1999 to 3.1 nights in 2007.

In 2007, length of hospital stay did not differ significantly by mother's age or marital status. Length of hospital stay did differ, however, by race, mother's education, and Medicaid status in 2007.

In 2007, the majority of women (72.7%) reported not having a dental problem during pregnancy. However, 14.0% of women reported having a dental problem during pregnancy and not receiving care.

In 2007, women who reported experiencing postpartum depression symptoms were more likely to ...

- be black
- have less than a high school education
- be unmarried and
- be on Medicaid.

What Some South Carolina Mothers Have to Say about Maternal Health:

“I think there should be more research in the cause & treatment of severe preeclampsia & the HELLP syndrome. Too little is explained for such severe symptoms & problems.”

“I believe the longer hospital stay was very beneficial to me. It allowed me time to rest and build up my strength before going home to my other children. It also allowed more education time. I learned more about breastfeeding, infant CPR and general information than I did with my other births.”

“I am somewhat reluctant to get pregnant again due to the fact I am scared of having complications with the second pregnancy.”

“I really wish that I knew why my body reacts to pregnancy the way it does. I had 2 preterm babies and it was recommended that I don’t have anymore. I have gotten Preeclampsia 2 times.”

“My daughter was born premature (I had severe preeclampsia) and I did everything to have a healthy pregnancy.”

“There needs to be much more teaching about Postpartum Depression. [Hospital name omitted] did an outstanding job of prenatal care, as well as postnatal care. However, there was no teaching about PPD, which I suffered through starting at about 8 weeks postpartum. It would be wonderful if SC DHEC could offer PPD classes/support groups, etc. AND encourage [hospital name omitted] to do the same.”

“Take it easy. What ever pain you feel, go to the doctor. Don’t sit around and wait for the pain to go away. Get it checked out right away.”

“I believe that some of the main problems with non-healthy pregnant mothers is not eating right, maybe leading to high-blood pressure; also, stressing over small or large situations can also lead to high blood pressure. This, I know, for a fact can hurt the mother and child.”

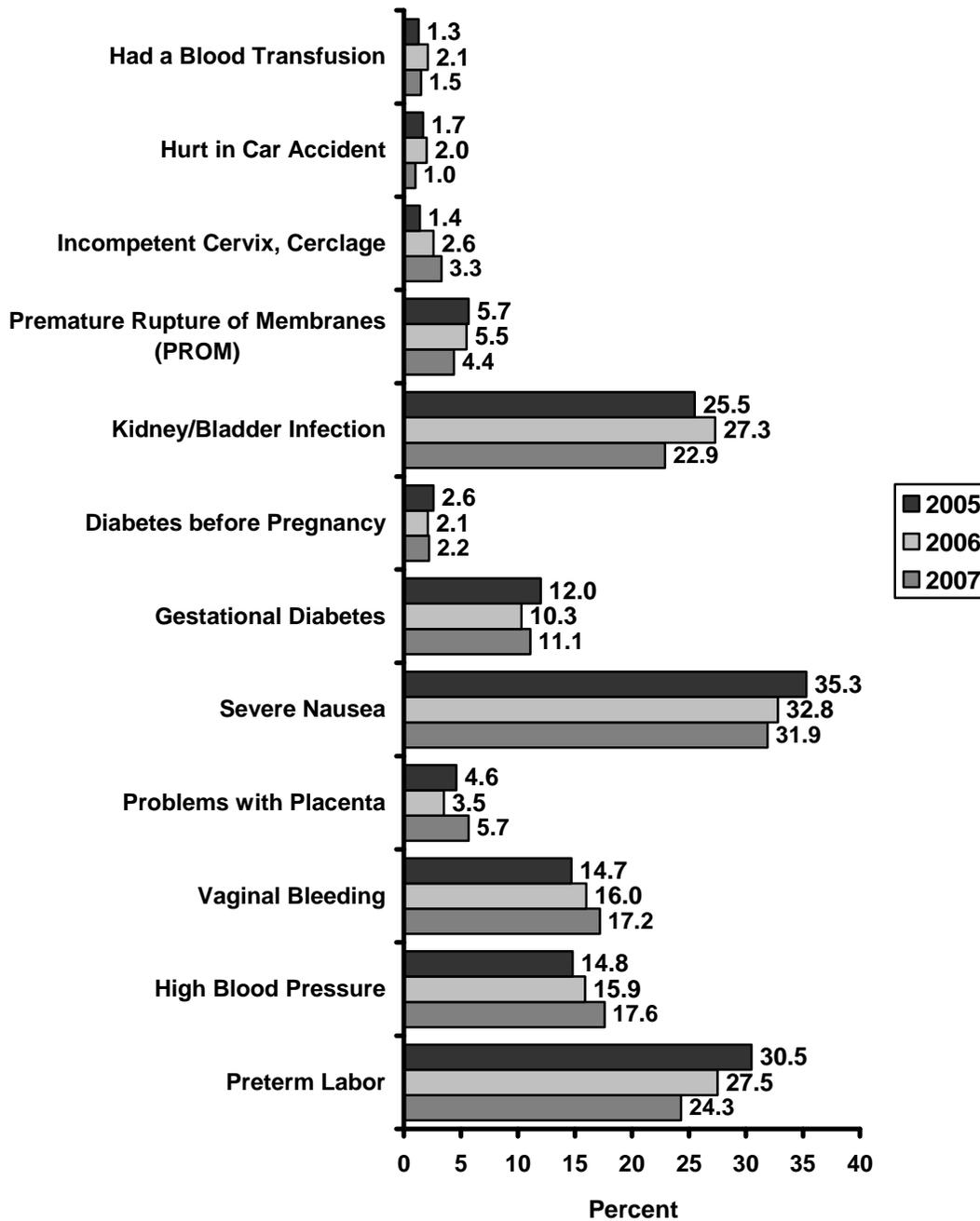
“I would like to see more research done on incompetent cervix. I was told that was the reason for my preterm pregnancy. Surely there are more signs to predict or tests to see if this is a condition before losing a child.”

“Always keep your appointment to the doctor. Always take your prenatal vitamins and iron pills. No question is a stupid question. Always ask your doctor. If you think something maybe wrong, most likely it is.”

“Just hormonal: mood swings, anger easily, feeling like nothing is getting accomplished, no time for myself ...”

Maternal Health

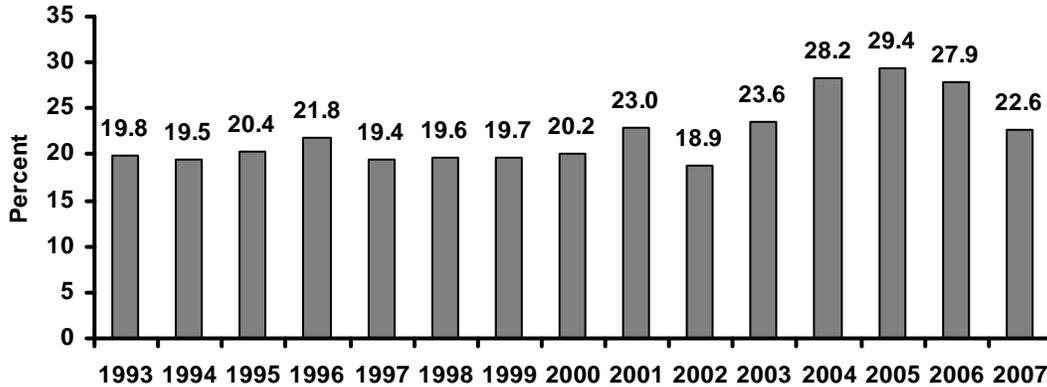
Maternal Problems During Pregnancy, 2005-2007



In 2005, 2006 and 2007, the three most common problems during pregnancy were severe nausea, vomiting, or dehydration; preterm, or early, labor; and kidney or bladder (urinary tract) infection.

Maternal Health

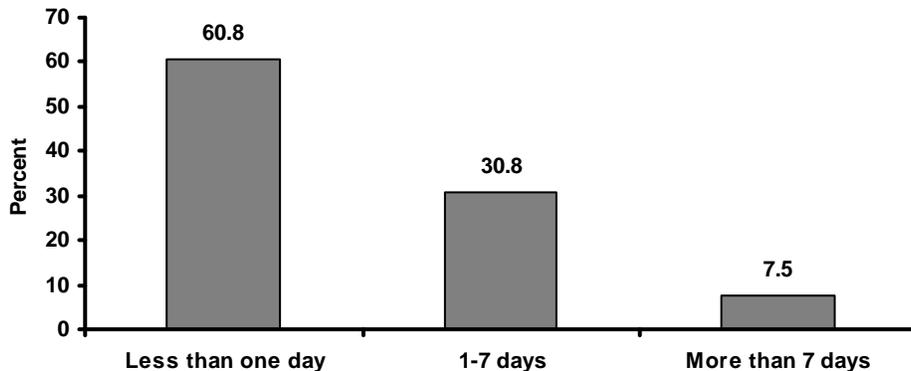
Proportion of Women Who Were Hospitalized At Least One Night During Pregnancy (Excluding Delivery), 1993-2007*



In 2007, 22.6% of women were hospitalized for at least one night during pregnancy before giving birth.

*Note: The format of this question in the PRAMS survey was changed in 2004, however the wording of the question remained unchanged.

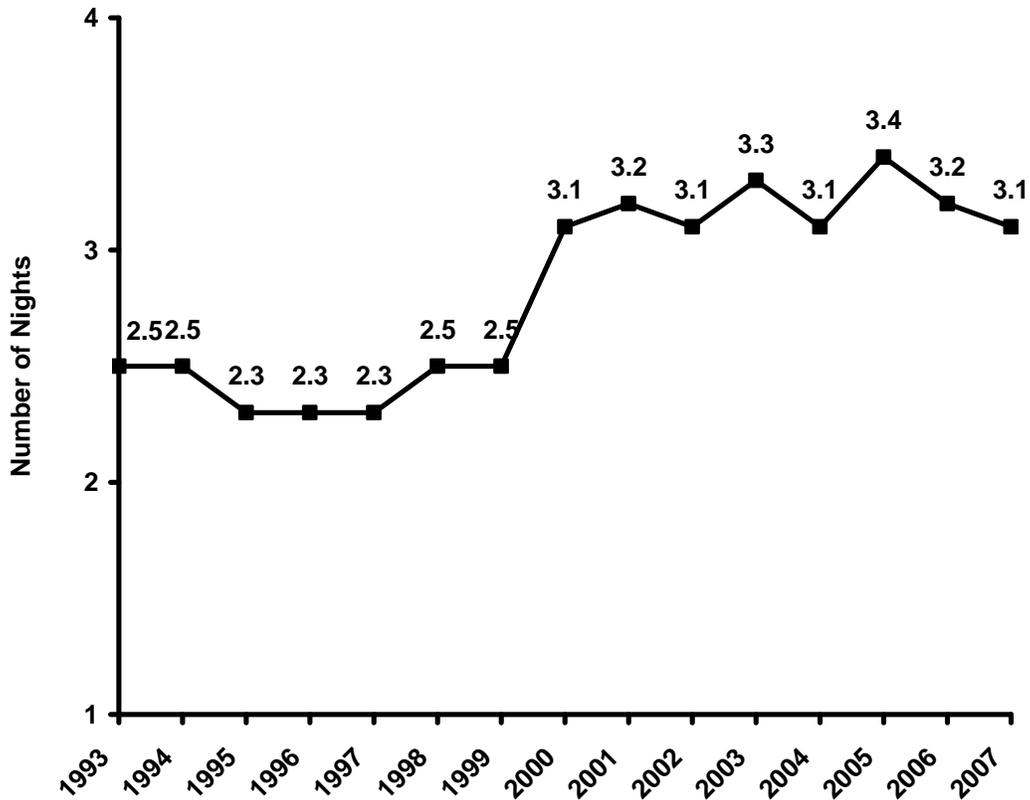
Length of Maternal Hospitalizations During Pregnancy (Excluding Delivery), 2007



The majority of women who were hospitalized during pregnancy stayed less than one day (60.8%). However, 7.5% were hospitalized for more than seven days.

Maternal Health

Average Hospital Stay After Delivery (Number of Nights), 1993-2007



The average number of nights mothers spent in the hospital after delivery has increased from 2.5 nights in 1993 to 3.1 nights in 2007.

In 2007, length of hospital stay did not differ significantly by mother's age or marital status.

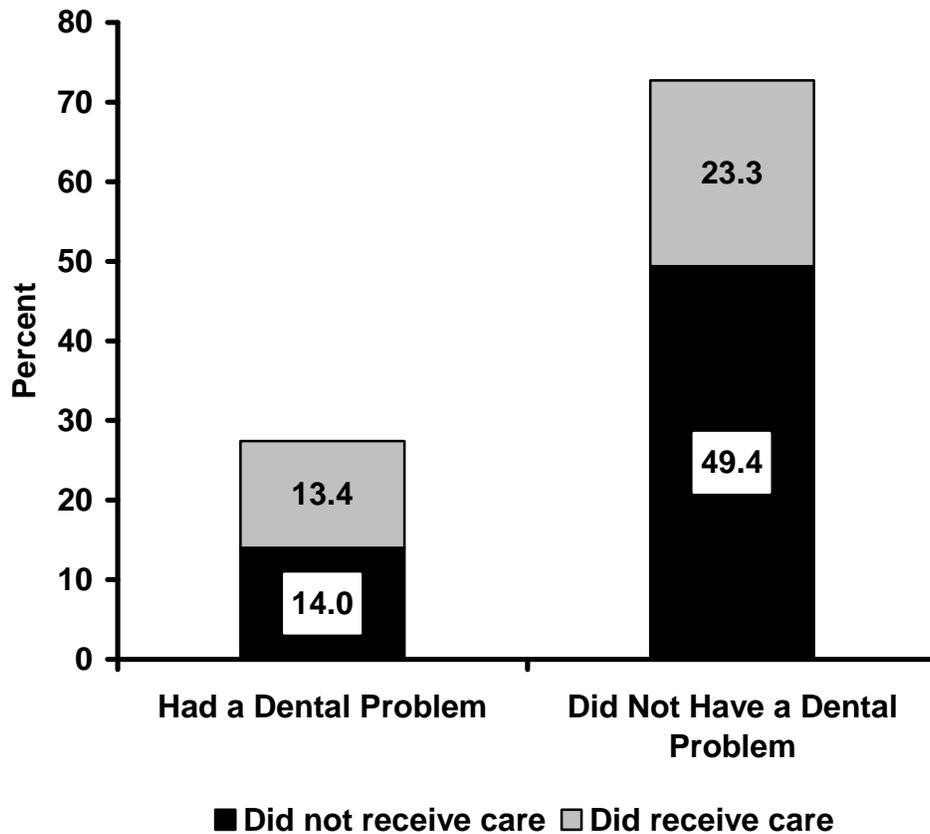
Length of hospital stay was significantly longer for ...

black women, compared to white women

women with greater than a high school education, compared to women with less than a high school education

women on Medicaid, compared to women not on Medicaid

Oral Health During Pregnancy, 2007



In 2007, the majority of women (72.7%) reported not having a dental problem during pregnancy. However, 14.0% of women reported having a dental problem and not receiving care.

Maternal Health

Postpartum Depression Symptoms***, 2005-2007

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	19.5 (16.5, 22.9)	18.2 (15.2, 21.7)	15.9 (13.0, 19.3)
Race			
Black	23.4 (18.1, 29.8)	19.9 (14.5, 26.6)	18.9 (13.6, 25.8)
White	16.7 (13.1, 21.1)	18.1 (14.4, 22.6)	14.4 (10.9, 18.7)
Age			
Less than 18	----^	----^	----^
18-24	23.5 (18.5, 29.4)	20.0 (15.0, 26.1)	22.8 (17.1, 29.8)
25-34	16.1 (12.1, 21.1)	17.0 (12.8, 22.1)	11.2 (8.1, 15.2)
35-55	----^	----^	----^
Education			
Less than High School	29.4 (22.2, 37.8)	25.9 (19.0, 34.3)	27.1 (19.5, 36.4)
High School	22.1 (15.9, 29.8)	20.3 (14.4, 28.0)	17.5 (11.7, 25.5)
More than High School	13.4 (10.2, 17.5)	13.4 (10.0, 17.8)	10.2 (7.4, 13.9)
Marital status			
Married	14.4 (11.0, 18.6)	12.5 (9.3, 16.6)	11.6 (8.7, 15.4)
Other	26.0 (20.9, 31.8)	25.1 (19.9, 31.2)	22.0 (16.8, 28.4)
Medicaid			
Yes	24.7 (20.5, 29.5)	23.3 (19.0, 28.3)	22.0 (17.5, 27.4)
No	11.3 (7.9, 16.0)	10.5 (7.3, 14.9)	8.7 (6.0, 12.5)
Birthweight**			
VLBW (<1500 g)	27.0 (24.9, 29.2)	30.4 (28.2, 32.7)	30.9 (28.4, 33.4)
MLBW (1500-2499 g)	23.8 (20.0, 28.1)	22.1 (18.4, 26.3)	29.3 (23.0, 36.4)
NBW (2500+ g)	19.0 (15.7, 22.7)	17.7 (14.4, 21.5)	14.5 (11.5, 18.2)

*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

****Note:** In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

*******Women who responded often or always to either of two depression screening questions (Questions 72a and 72b; Appendix A) in the survey were coded as experiencing postpartum depression symptoms.

Infant Health Fact Sheet

In 2007...

After delivery, the majority of all infants (82.7%) stayed in the hospital for less than 3 days. Among infants who were placed in an intensive care unit (ICU), over one half (51.4%) stayed in the hospital for six days or more after delivery.

Between the years 1993 and 2007...

The proportion of LBW infants that stayed in an ICU decreased from 54.6% in 1993 to a low of 42.4% in 1996, but has increased to 46.6% in 2007.

In 2007...

Babies were more likely to have longer hospital stays if they were born to mothers who were:

- Black
- on Medicaid
- unmarried
- and a High School education or less.

In 2007, 6.2% of infants were exposed to smoke on a daily basis, which is a decrease of more than 50% from 2002 (12.8%). Additionally, 0.7% of infants were exposed to smoke for four or more hours a day, which has decreased from 2.8% in 2002.

The proportion of mothers putting their babies to sleep on their backs, the recommended sleeping position, increased greatly from 22.7% in 1995 to 60.9% in 2007.

What Some South Carolina Mothers Have to Say about Infant Health:

“My child was born 2 lbs 1oz and I have no rhymes or reasons why. She was sent home with a heart monitor and caffeine.”

“I had twin daughters. They were born at 29 weeks gestation. The doctors gave my first daughter only a 5% chance of living. She had a collapsed lung. They stayed in the NICU for 6 weeks. They're doing wonderful now. They (the nurses) were amazing. My prenatal care was good”

“My baby weight 4 pounds, 12 ounces. She did not need oxygen or assisted support. She had an IV for the first 24 hours. (We think her lungs were developed because I was given steroid injections while in the hospital.) She spent 10 days in the NICU before coming home.”

“My son arrived at 25 wks and stayed in the NICU 103 days. It was the hardest time in my life. He's home now and been home for 5 days and still on oxygen but he's happier.”

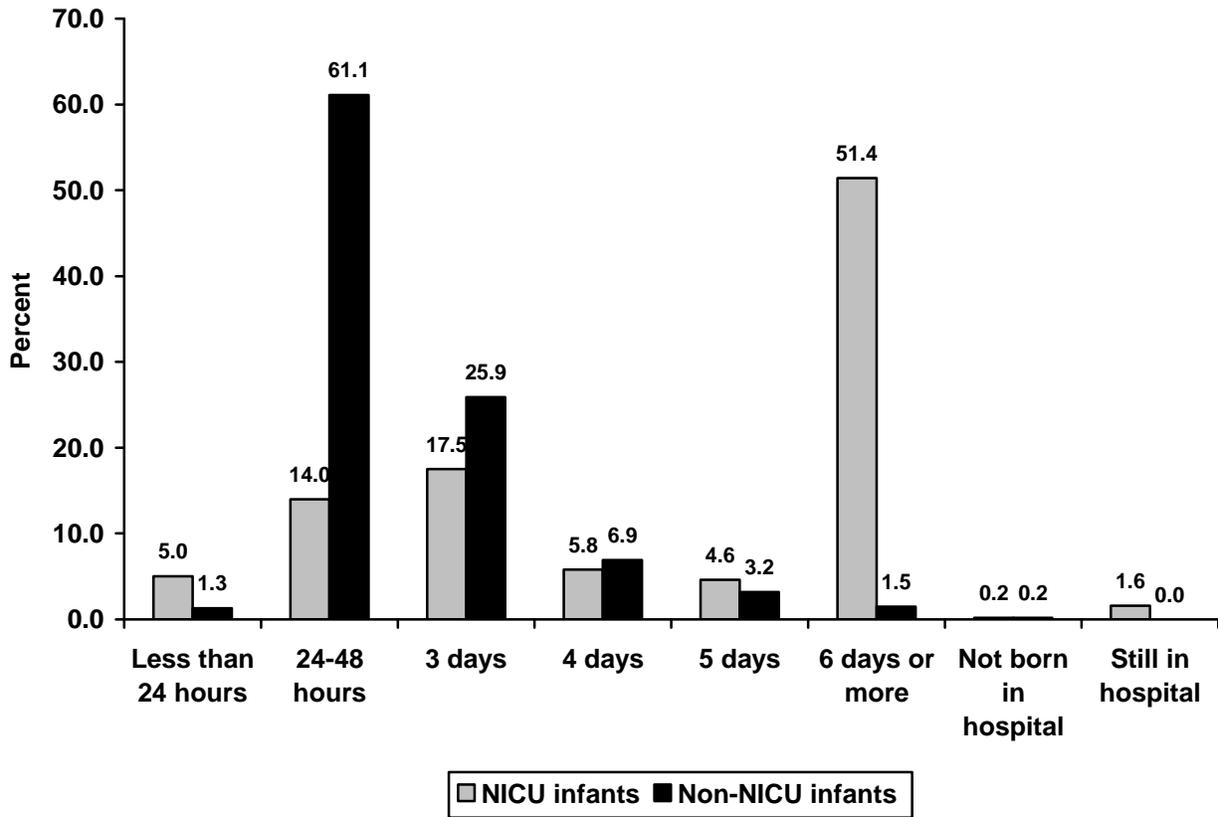
“My last baby was born premature (6 wks) due to my high blood pressure etc. This allowed me to stay in the hospital longer than I did with my other babies”

“You just have to pray and hope that your baby comes out healthy. Because you can do everything right and your baby can come out with a problem or die. It's all up to God.”

“I had a baby that was born 2 months early. She had to stay in the hospital for a whole 6 months. I feel like she was taken care of to the fullest extent. I feel like the health of babies in South Carolina is very important to doctors and hospitals. And even after my baby has gotten out of the hospital, she is still treated very well. Her doctors take extra precautions with her, and try their hardest to do everything they can to make sure she is healthy.”

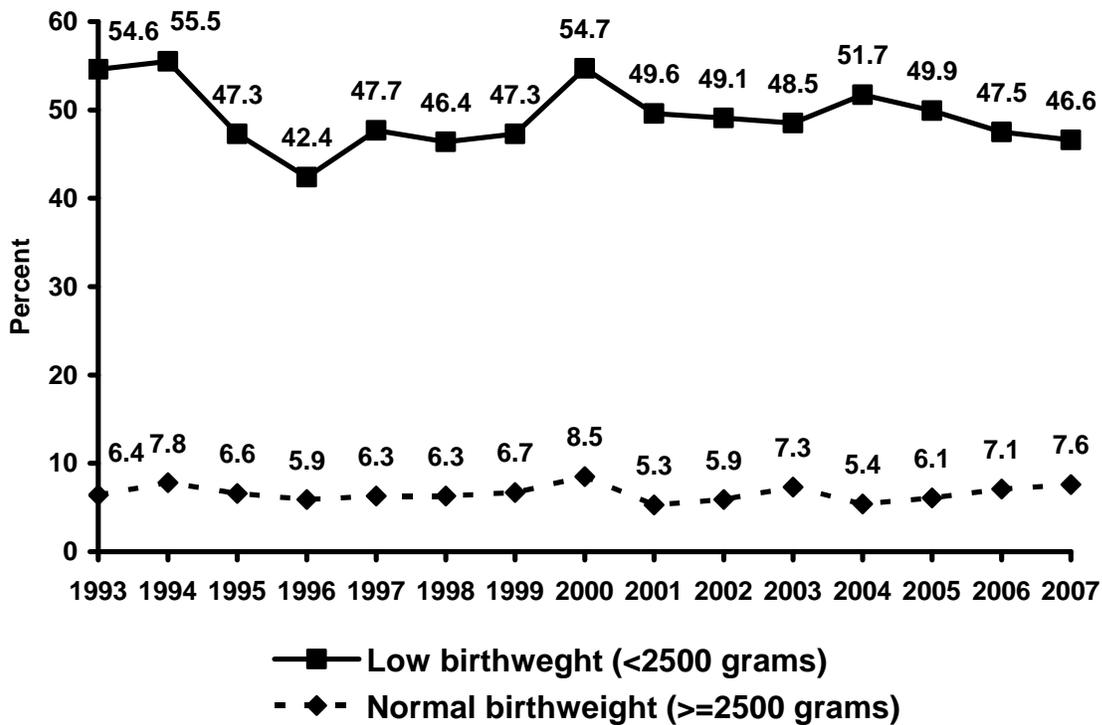
“I was put in the hospital one week and one day before they took my twins because baby B had absent blood flow the doctor took them because baby A didn't have any fluid around her. The babies were 2 months early. They had to stay in NICU until Dec 22, 2007. Thanks”

**Number of Nights Infants Stayed in Hospital After Delivery,
2007**



Among the infants who stayed in the Intensive Care Unit, 51.4% stayed in the hospital six days or more. Excluding infants who stayed in the Intensive Care Unit, 61.1% of the infants stayed in the hospital between 24-48 hours.

Proportion of Infants Who Stayed in an Intensive Care Unit by Birthweight*, 1993-2007



From 1993 through 2007, the proportion of low birthweight infants who stayed in the intensive care unit (ICU) fluctuated between 55.5% and 42.4% .

The proportion of NBW infants who stayed in the ICU fluctuated between 5.3% and 8.5% during the years of 1993-2007, with highest value 8.5% in 2000.

***Note:** In 2002, 2005, 2006, and 2007 the very low birthweight and low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Infant Health

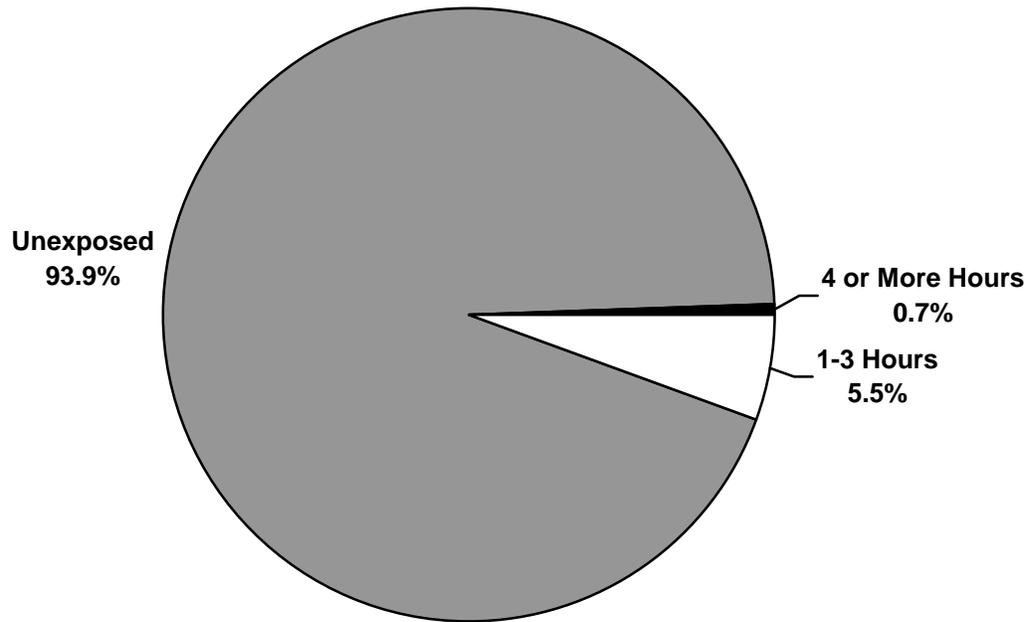
Characteristics of Women Whose Babies Stayed in the Hospital for More Than 48 Hours after Delivery, 2005-2007

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	42.3 (38.4, 46.3)	42.6 (38.6, 46.6)	42.3 (38.2, 46.4)
Race			
Black	47.6 (40.7, 54.6)	45.5 (38.3, 52.9)	50.5 (42.6, 58.4)
White	39.0 (34.1, 44.2)	38.3 (33.4, 43.4)	37.9 (32.9, 43.1)
Age			
Less than 18	47.0 (28.0, 67.0)	34.1 (19.5, 52.4)	----^
18-24	44.5 (38.3, 50.9)	42.9 (36.3, 49.8)	41.6 (34.6, 48.9)
25-34	39.6 (34.0, 45.5)	43.6 (37.9, 49.5)	43.1 (37.4, 49.0)
35-55	42.5 (31.7, 54.2)	40.5 (29.7, 52.3)	42.9 (32.3, 54.1)
Education			
Less than High School	51.2 (42.6, 59.7)	47.1 (38.6, 55.9)	46.0 (36.7, 55.5)
High School	42.4 (34.4, 50.8)	41.3 (33.6, 49.5)	44.5 (35.4, 53.4)
More than High School	37.8 (32.8, 43.0)	41.0 (35.7, 46.5)	39.5 (34.3, 44.9)
Marital status			
Married	39.3 (34.3, 44.5)	41.6 (36.4, 46.9)	38.0 (33.2, 43.0)
Other	46.2 (40.1, 52.4)	43.1 (36.9, 49.5)	48.3 (41.3, 55.4)
Medicaid			
Yes	46.1 (41.0, 51.4)	44.5 (39.2, 49.9)	46.4 (40.5, 52.3)
No	36.4 (30.7, 42.5)	39.6 (33.8, 45.7)	37.3 (31.8, 43.1)

*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

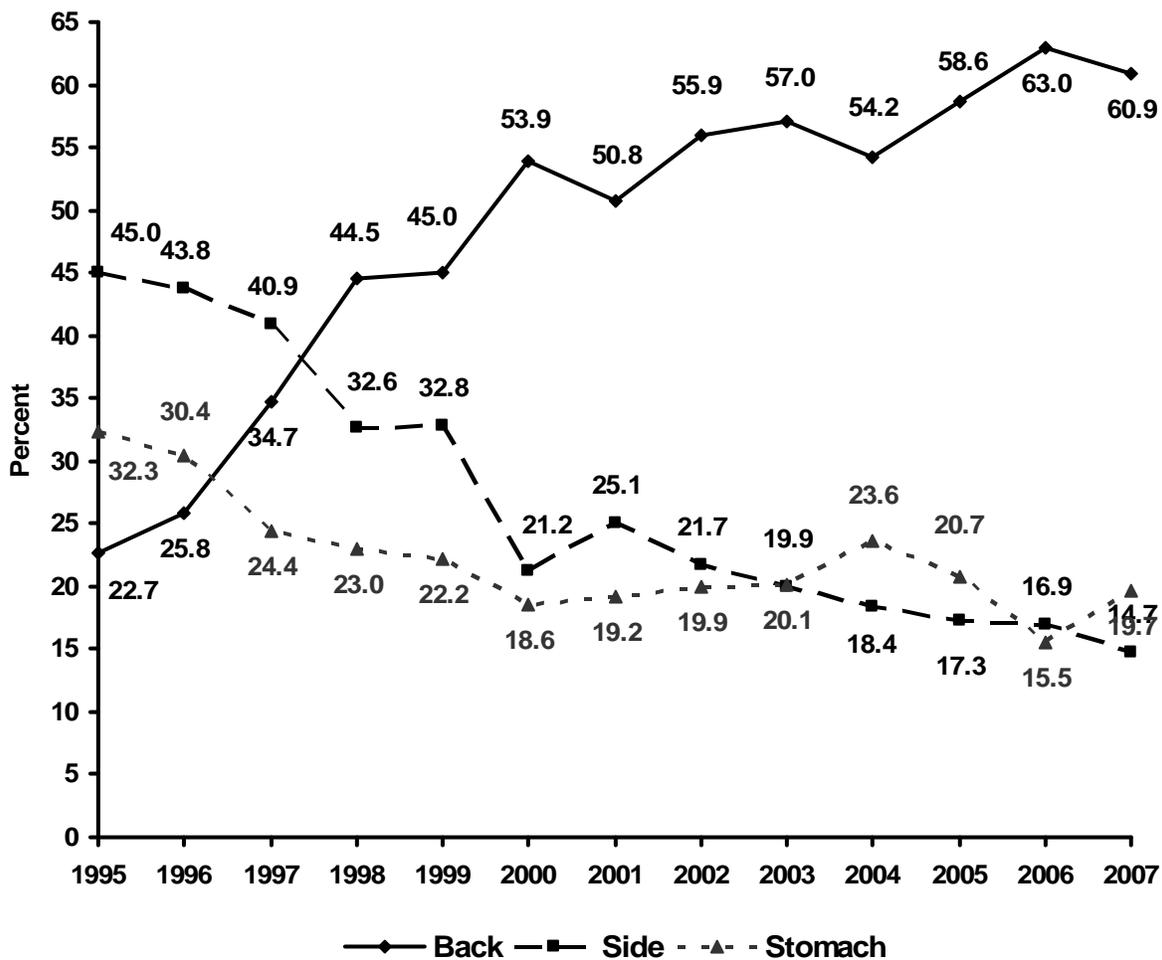
Proportion of Infants Exposed to Smoke Daily, 2007



The proportion of infants exposed to smoke on a daily basis decreased from 12.8% in 2002 to 6.2% in 2007.

The proportion of infants exposed to smoke for 4 or more hours daily has decreased from 4.6% in 1999 to .7% in 2007.

Infant Sleep Position, 1995-2007



Infant sleeping positions changed dramatically during the years 1995 through 2007. In 1995, the majority of infants were put to sleep on their sides (45%), with back sleeping position being the least common (22.7%). The proportion of infants put to sleep on their backs, which is the recommended sleeping position, has greatly increased from 22.7% in 1995 to 60.9 % in 2007.

Breastfeeding Fact Sheet

Between the years of 1993 and 2007...

The percent of mothers who breastfed for more than one week postpartum went from 37.4% in 1993 to 63.6% in 2007.

The percent of WIC mothers who breastfed for more than one week increased from 20.9% in 1993 to 53.5% in 2007.

The percent of mothers who breastfed for more than one month postpartum has increased from 15.5% in 1993 to 48.4% in 2007.

In 2007...

Over 36% of all mothers in South Carolina breastfed less than one week or did NOT breastfeed at all.

Women who did NOT breastfeed or breastfed for less than one week were more likely to:

- be black
- be unmarried
- be on Medicaid and/or WIC and
- have a high school education or less.

Although the proportion of women breastfeeding their babies for more than one week has increased substantially in South Carolina mothers, a great deal of improvement is needed to reach the Healthy People 2010 Goal: 75% of mothers breastfeeding in the early postpartum period.

What Some South Carolina Mothers Have to Say about Breastfeeding:

"I pumped and took bottles for the nurses to feed him while he was in the NICU."

"... Breastfed babies are healthier and I try to promote this to every expecting parent that I know."

"...milk Fortifiers were added to the breast milk before one week."

"I believe Breast Feeding is very important for a baby's health, especially the first few months. I think its ok for a mom to supplement with formula for convenience at times, as long as the mom continues to also Breast Feed up to at least 6-12 months."

"Began supplementing Neosure in the NICU for calories."

"I didn't have money to buy or rent (a breast pump), and my milk didn't come in."

"Giving mothers free formula and formula coupons in the hospital significantly contributes to the poor breastfeeding rate... Providing a bottle of free prenatal vitamins would be better."

"Also with breastfeeding classes they need to mention the types of things that your body may go through for example: hard to take a shower, leaking breast while nursing on the other side. How long it may take at first, my baby wanted to nurse for an hour or more each feeding."

"...b/c of early birth I didn't lactate"

"I had tried breastfeeding with my 1st child & it didn't work out."

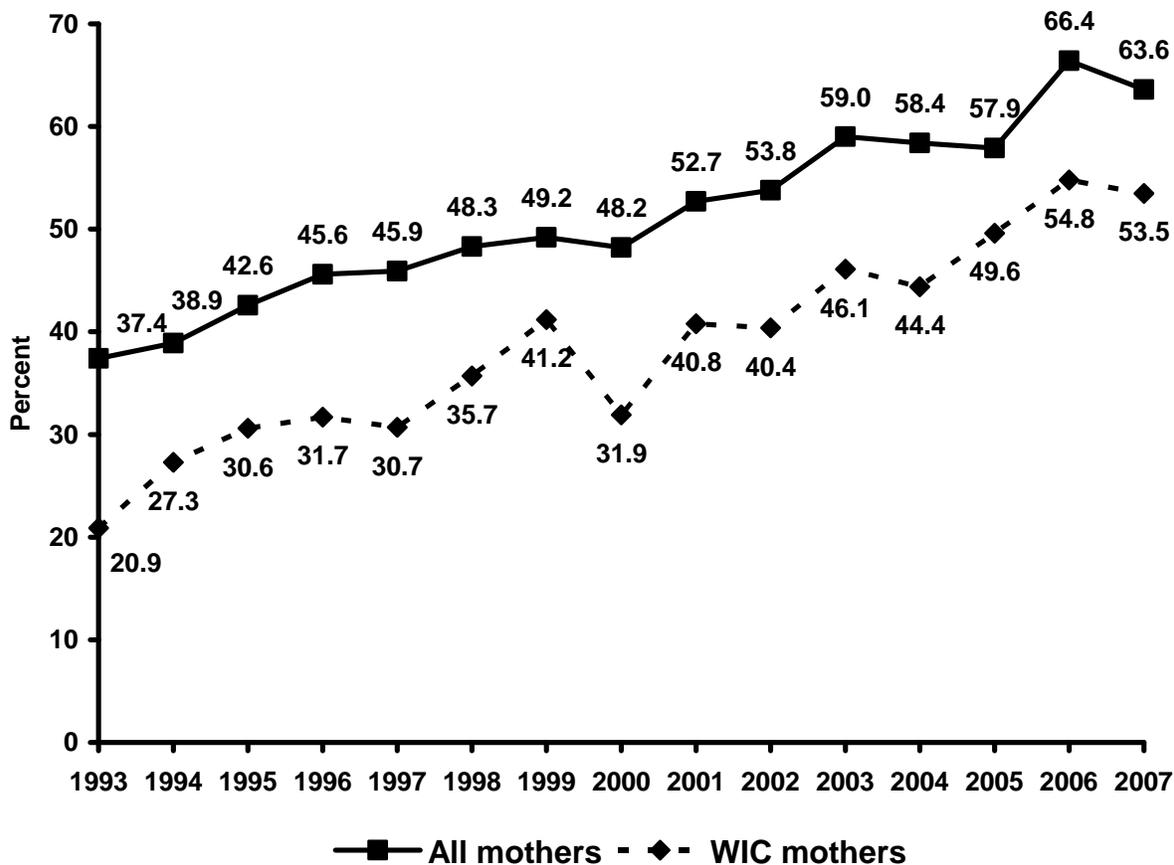
"The hospital fed her formula."

"My babies have been breastfed and do not seem to be ill like other children formula fed. Mothers should not only be encouraged to breastfeed but to do so when ever & where ever they go. Thus, increasing public tolerance, mothers willing to breastfeed b/c they don't feel they have to stay locked up at home & healthier children. Thanks!"

"... breastfeeding was never successful w/ previous children."

"They both were given breastmilk and extra calorie formula since birth."

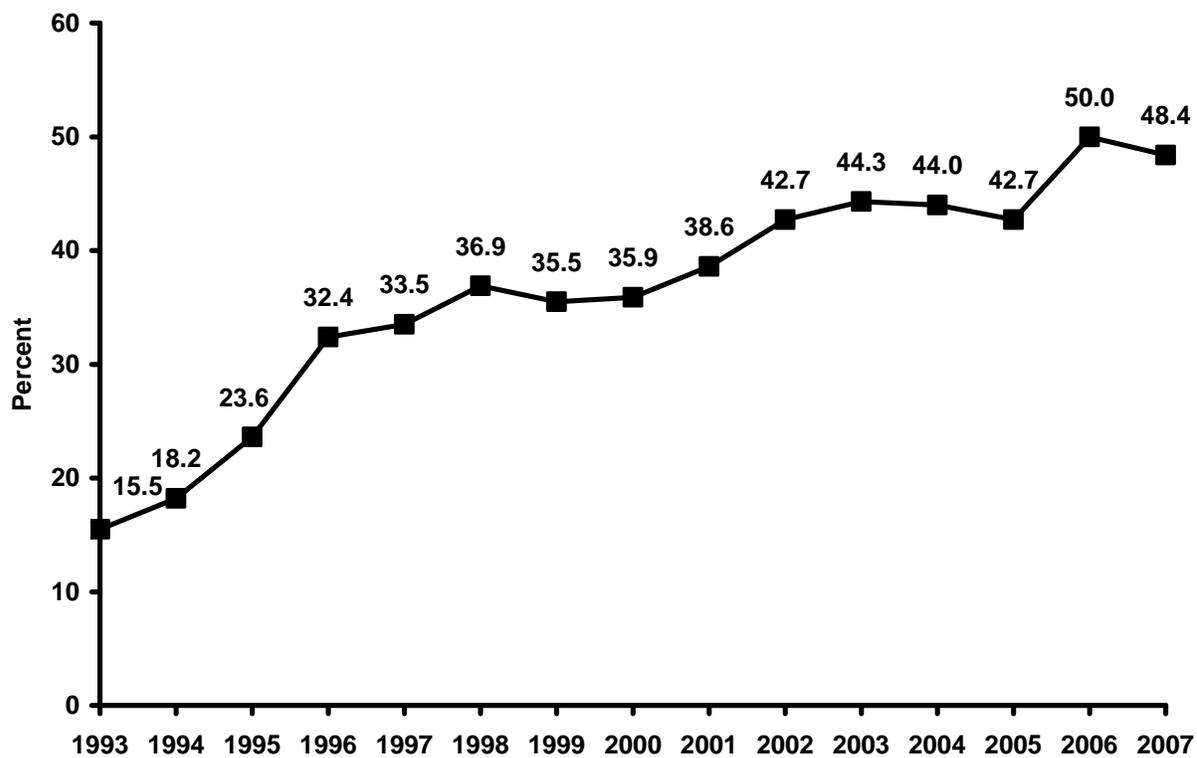
Trend of Breastfeeding for More than One Week, 1993-2007



Compared to all mothers, WIC mothers were less likely to breastfeed for one or more weeks. However, the proportion increased for both groups of women from 1993 to 1999. In 2000, the percentage of WIC mothers who breastfed for more than one week dropped to 31.9% but has since increased to 53.5% in 2007.

Breastfeeding

Trend of Breastfeeding for More than One Month, 1993-2007



The proportion of women who breastfed for more than one month increased from 15.5% in 1993 to 48.4% in 2007.

Breastfeeding

Characteristics of Women Who Did NOT Breastfeed or Breastfed for Less than One Week, 2005-2007

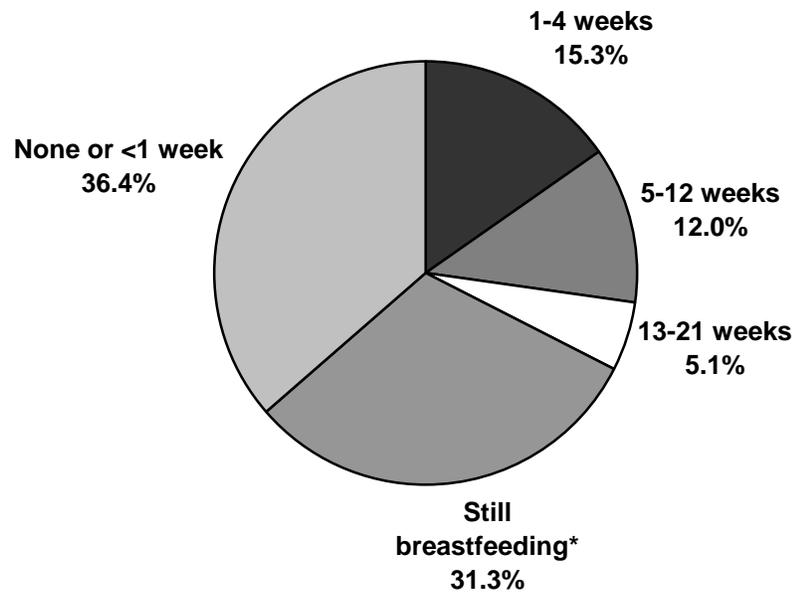
Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	42.1 (38.1, 46.2)	33.6 (29.8, 37.7)	36.4 (32.3, 40.7)
Race			
Black	59.6 (52.5, 66.3)	49.8 (42.2, 57.5)	51.4 (43.3, 59.5)
White	36.9 (31.9, 42.2)	28.6 (24.0, 33.7)	30.8 (25.9, 36.1)
Age			
Less than 18	----^	----^	----^
18-24	51.8 (45.3, 58.3)	42.6 (35.8, 49.6)	46.4 (39.0, 54.0)
25-34	34.0 (28.4, 40.0)	27.4 (22.3, 33.1)	27.2 (22.1, 33.0)
35-55	31.1 (21.2, 42.9)	----^	35.5 (25.4, 47.1)
Education			
Less than High School	59.3 (50.6, 67.6)	45.5 (36.8, 54.5)	50.4 (40.7, 60.1)
High School	51.1 (42.6, 59.5)	46.5 (38.3, 54.9)	48.0 (42.4, 57.1)
More than High School	28.6 (24.0, 33.8)	21.1 (16.8, 26.2)	25.1 (20.5, 30.4)
Marital status			
Married	28.7 (24.1, 33.8)	22.8 (18.4, 27.8)	26.4 (22.0, 31.3)
Other	59.9 (53.6, 65.9)	47.5 (41.0, 54.2)	50.5 (43.3, 57.6)
Medicaid status			
Medicaid	52.8 (47.4, 58.1)	44.1 (38.7, 49.6)	48.4 (42.4, 54.5)
Not Medicaid	25.8 (20.6, 31.7)	17.5 (13.2, 22.8)	22.1 (17.4, 27.6)
Birthweight**			
VLBW (<1500 g)	24.7 (22.4, 27.1)	22.5 (20.2, 24.9)	21.6 (19.2, 24.2)
MLBW (1500-2499 g)	50.5 (45.6, 55.3)	46.6 (41.9, 51.3)	42.2 (36.3, 48.3)
NBW (2500+ g)	41.7 (37.4, 46.2)	32.7 (28.6, 37.2)	36.2 (31.8, 40.8)
WIC status			
Yes	50.5 (45.0, 56.0)	45.2 (39.5, 51.1)	46.5 (40.3, 52.9)
No	30.1 (24.8, 36.1)	18.5 (14.2, 23.7)	26.5 (21.5, 32.2)

*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

****Note:** In 2005, 2006, and 2007 the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Duration of Breastfeeding, 2007



*Could range from 19-24 weeks at time of survey.

In 2007, just over 36% of women did not breastfeed or breastfed for less than one week. However, 36.4% of mothers breastfed for 13 or more weeks.

Financial Issues Fact Sheet

Between the years of 2005-2007...

Between 27.9% and 29.0% of pregnant women had a total household income of less than \$10,000 annually.

Between 21.0% and 24.2% of pregnant women received income from some sort of public assistance (AFDC, welfare, public assistance, general assistance, food stamps, or social security income).

Women receiving public assistance during pregnancy were more likely to:

- be black
- have less than a high school education and
- be unmarried.

In 2005, 2006, and 2007 the most common source of payment for both prenatal care and delivery was Medicaid.

In 2007...

38.5% of women were less than 100% of poverty and 19.0% of women were 100-185% of poverty.

42.6% of women were above the South Carolina Medicaid Poverty Threshold for pregnant women (above 185% of poverty).

What Some South Carolina Mothers Have to Say about Financial Issues:

“Insurance later on covered some bills. We have payment plans with Dr. & hospital”

“I need help to get money from baby daddy. Because he is not helping me at all.”

“Although my family could afford to pay for prenatal care out of pocket, it was very expensive and an emotional burden.”

“Husband worked - Insurance informed 3 weeks after giving birth that my coverage was canceled on May 1 (my delivering date) so still trying to pay bill.”

“I do not have health insurance but paid for my health care. Please do not make health insurance mandatory. My church helps us with the cost of medical bills. I used a mid-wife and birthing center for my new baby.”

“I would of been able to get proper care if I didn't have to search for ins. companies that would take me.”

**Total Annual Household Income for Women During Pregnancy,
2005-2007**

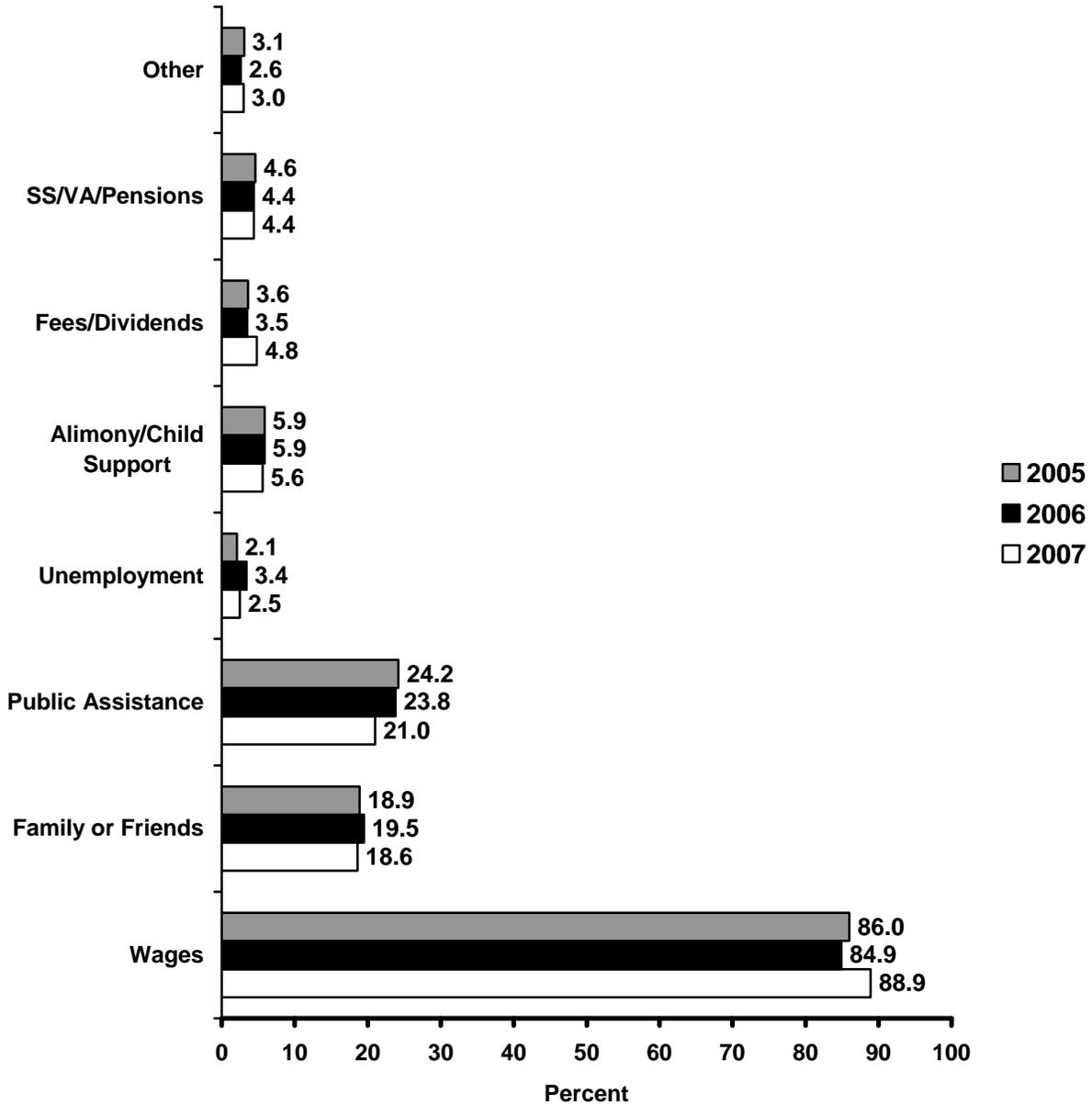
Income Level	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
< 10,000	28.9 (25.3, 32.8)	27.9 (24.1, 32.0)	29.0 (25.1, 33.2)
10,000-14,999	10.9 (8.6, 13.9)	12.9 (10.2, 16.1)	10.1 (7.7, 13.2)
15,000-19,999	8.6 (6.5, 11.2)	8.0 (6.0, 10.6)	7.1 (5.2, 9.7)
20,000-24,999	7.8 (5.8, 10.2)	7.5 (5.5, 10.2)	5.9 (4.2, 8.2)
25,000-34,999	8.3 (6.3, 10.8)	11.2 (8.8, 14.1)	10.1 (7.8, 13.1)
35,000-49,999	10.4 (8.2, 13.2)	11.1 (8.8, 13.9)	9.3 (7.2, 12.0)
50,000+	25.2 (21.8, 28.8)	21.5 (18.4, 24.9)	28.5 (25.0, 32.3)

***95% Confidence Interval**

In 2007, 29.0% of women delivering live infants had a total annual household income of less than \$10,000.

In 2007, 28.5% of women delivering live infants had a total annual household income of \$50,000 or greater.

Sources of Income During Pregnancy, 2005-2007



The top three sources of total household income for 2007 were:
 money from a job or business,
 public assistance (AFDC, welfare, general assistance, food stamps, SSI) and
 money from family or friends.

Characteristics of Women Earning Wages^{^^}, 2005-2007

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	86.0 (82.9, 88.6)	84.9 (81.6, 87.6)	88.9 (85.9, 91.3)
Race			
Black	76.0 (69.5, 81.5)	74.7 (67.6, 80.7)	80.9 (74.1, 86.3)
White	91.3 (87.7, 93.9)	91.7 (88.2, 94.2)	94.3 (91.2, 96.4)
Age			
Less than 18	61.7 (42.2, 78.0)	59.5 (40.8, 75.8)	---- [^]
18-24	79.8 (74.2, 84.5)	79.9 (73.8, 85.0)	85.7 (79.9, 90.1)
25-34	92.9 (89.1, 95.5)	89.8 (85.4, 93.0)	92.6 (88.7, 95.2)
35-55	92.9 (84.3, 97.0)	91.4 (81.6, 96.3)	90.1 (80.9, 95.1)
Education			
Less than High School	70.4 (62.2, 77.4)	63.1 (54.4, 71.0)	76.0 (67.2, 83.1)
High School	83.0 (75.8, 88.4)	86.8 (80.0, 91.5)	89.5 (83.1, 93.6)
More than High School	95.3 (92.5, 97.1)	94.6 (91.4, 96.7)	94.8 (91.7, 96.8)
Marital status			
Married	94.2 (91.1, 96.3)	93.4 (90.0, 95.7)	95.0 (92.2, 96.8)
Other	75.4 (69.8, 80.3)	74.4 (68.3, 79.6)	80.3 (74.2, 85.2)
Medicaid status			
Yes	78.7 (74.1, 82.6)	76.4 (71.5, 80.7)	82.5 (77.6, 86.6)
No	97.3 (94.2, 98.8)	98.1 (95.7, 99.2)	96.5 (93.7, 98.1)
Birthweight**			
VLBW (<1500 g)	81.8 (79.9, 83.6)	80.4 (78.4, 82.2)	82.8 (80.6, 84.8)
MLBW (1500-2499 g)	76.9 (72.6, 80.6)	82.4 (78.5, 85.7)	78.0 (73.1, 82.3)
NBW (2500+ g)	86.8 (83.4, 89.6)	85.2 (81.5, 88.2)	89.9 (86.6, 92.4)

*95% Confidence Interval

[^]Cell contains less than 50 respondents; data not shown

^{^^}Earning Wages is defined as any women who received money, during the 12 months before her new baby was born, from a paycheck or money from a job.

****Note:** In 2005, 2006 and 2007, the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Characteristics of Women Receiving Public Assistance, 2005-2007**

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	24.2 (20.9, 27.8)	23.8 (20.4, 27.5)	21.0 (17.1, 24.8)
Race			
Black	41.4 (34.7, 48.4)	38.1 (31.1, 45.6)	33.5 (26.4, 41.4)
White	14.0 (10.7, 18.1)	16.9 (13.3, 21.3)	13.9 (10.4, 18.2)
Age			
Less than 18	----^	----^	----^
18-24	33.5 (27.8, 39.8)	33.9 (27.7, 40.7)	32.0 (25.5, 39.3)
25-34	19.5 (15.0, 24.8)	16.6 (12.5, 21.7)	16.1 (12.1, 21.1)
35-55	----^	----^	----^
Education			
Less than High School	42.2 (34.1, 50.7)	39.1 (31.0, 47.8)	35.2 (26.7, 44.7)
High School	23.4 (17.1, 31.2)	26.7 (20.0, 34.7)	30.7 (23.0, 39.7)
More than High School	15.7 (12.2, 20.0)	14.6 (11.0, 19.2)	10.1 (7.2, 14.1)
Marital status			
Married	13.1 (9.8, 17.2)	14.3 (10.7, 18.7)	11.7 (8.8, 15.4)
Other	38.5 (32.7, 44.6)	35.4 (29.5, 41.7)	34.3 (27.9, 41.3)
Medicaid status			
Yes	37.2 (32.3, 42.4)	35.4 (30.4, 40.7)	34.0 (28.5, 39.8)
No	----^	----^	----^
Birthweight***			
VLBW (<1500 g)	27.1 (25.0, 29.3)	23.5 (21.5, 25.6)	24.3 (22.0, 26.7)
MLBW (1500-2499 g)	25.3 (21.4, 29.7)	31.1 (27.0, 35.5)	31.0 (26.0, 36.5)
NBW (2500+ g)	24.1 (20.4, 28.1)	23.2 (19.5, 27.3)	20.2 (16.6, 24.4)

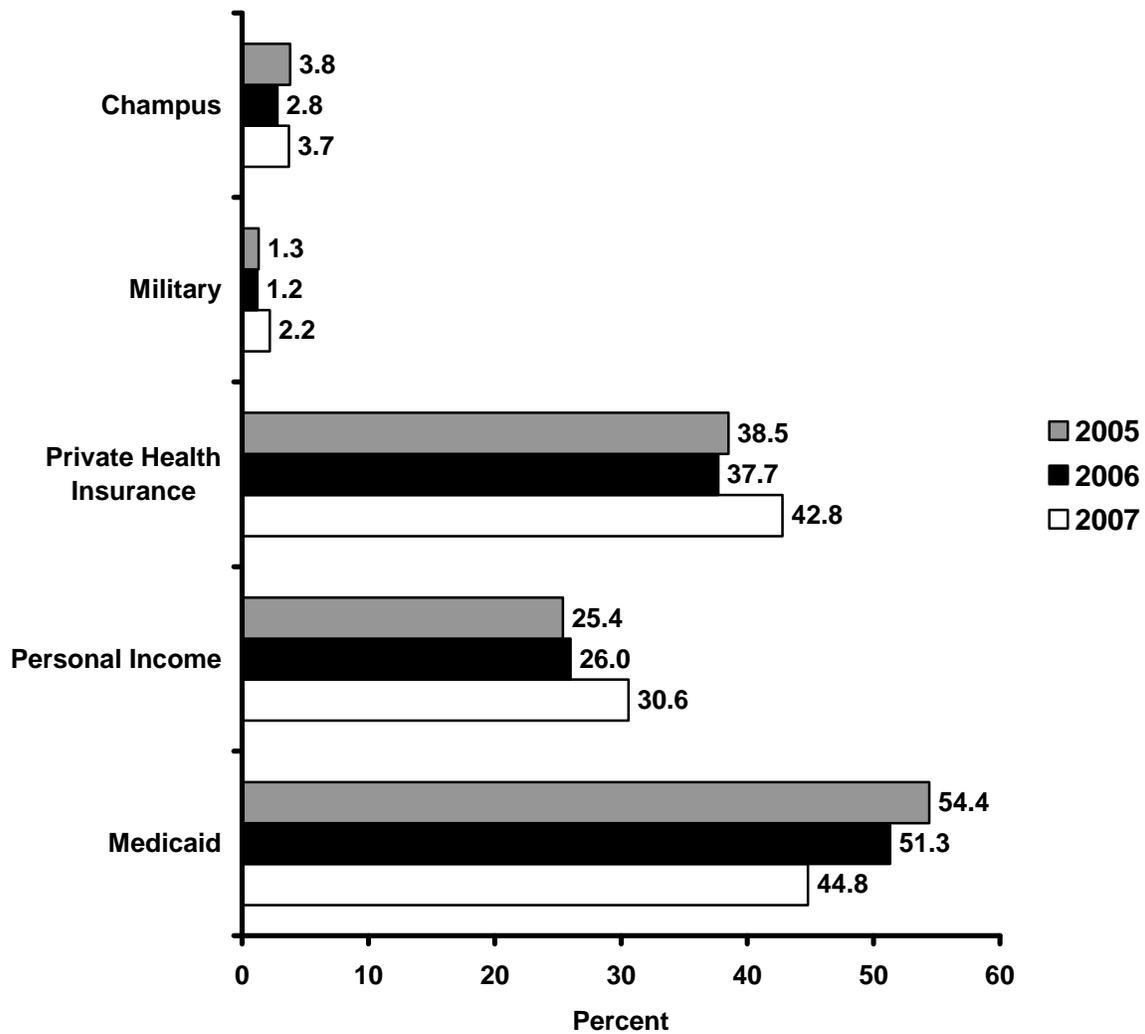
*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

** Public assistance is defined as any one of the following: Aid to Families with Dependent Children (AFDC), welfare, public assistance, food stamps, or Supplemental Security Income (SSI). Please note that wages and public assistance are not mutually exclusive.

*****Note:** In 2005, 2006 and 2007, the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Sources of Payment for Prenatal Care*, 2005-2007

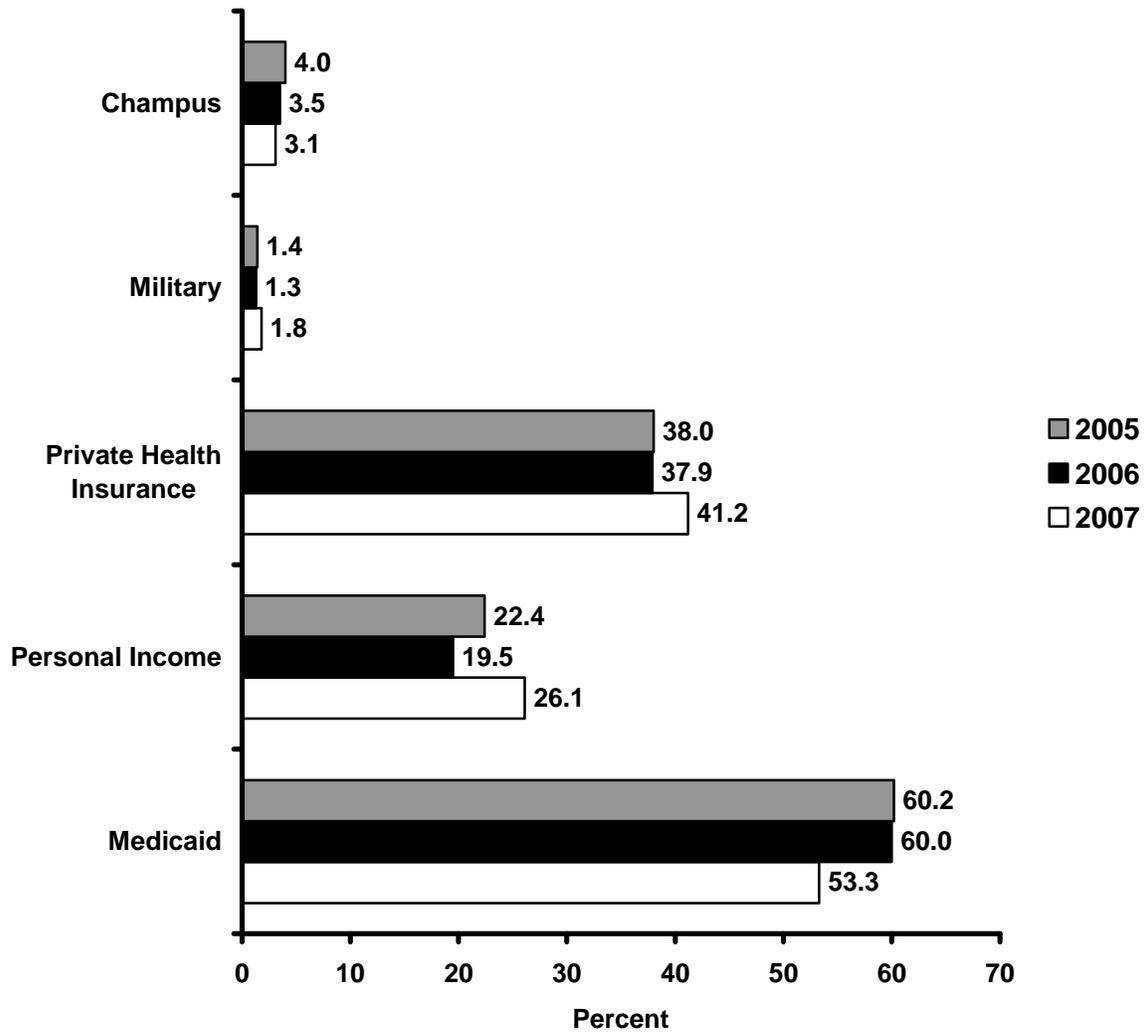


*Sources of payment are not mutually exclusive.

In 2007, just over 30% of women paid for all or part of their prenatal care with personal income.

The most common sources of payment for prenatal care were Medicaid and private health insurance for 2005, 2006, and 2007.

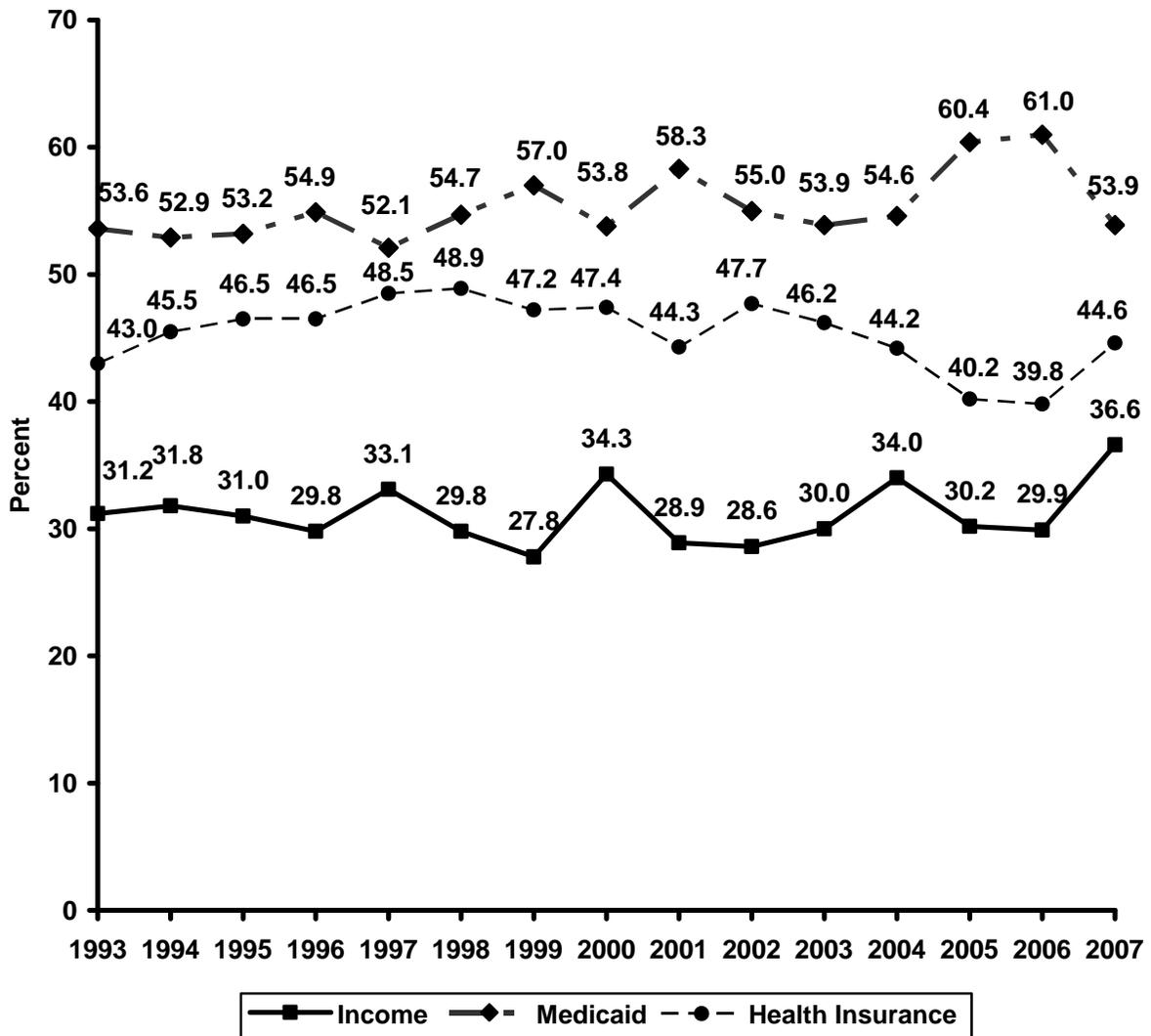
Sources of Payment for Delivery*, 2005-2007



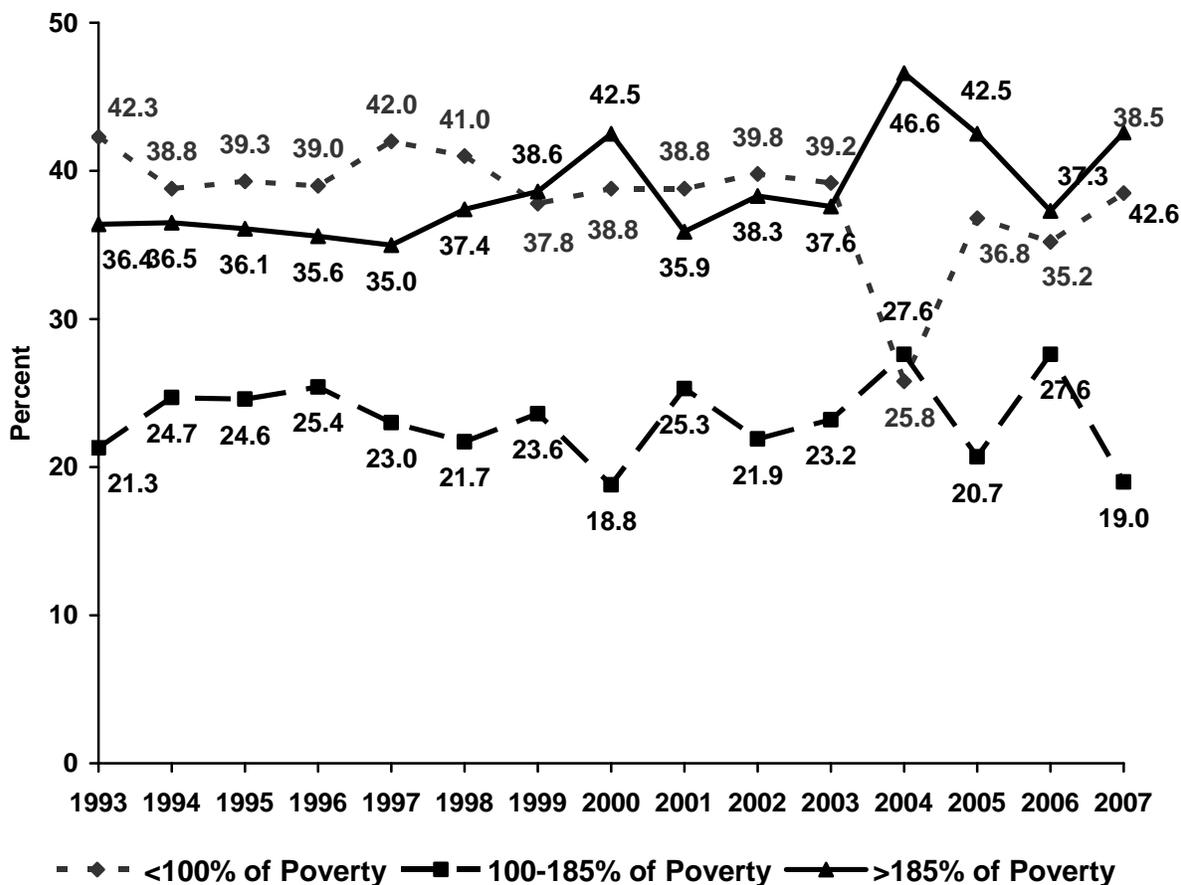
*Payment types are not mutually exclusive.

The top three sources of payment for delivery in 2005, 2006, and 2007 were:
Medicaid
Private Health Insurance and
Personal Income.

Percent of Women Who Used Personal Income to Pay for Prenatal Care or Delivery, 1993-2007



Poverty Status among Women Who Delivered a Live Birth, 1993-2007



Poverty thresholds were obtained from the Health and Human Services Federal Poverty Guidelines, 2006⁴. Poverty status is based on family income and family size obtained from questions 73 and 65 respectively on the PRAMS survey.

Between the years 1993 and 2003, the percent of pregnant women (who delivered live born infants) living at or below 185%* of the poverty level remained fairly constant between 62-65%, with just one drop in 2000 to 57.5%. The percent of women living at or below 185% of the poverty level was 53.4% in 2004 and has risen to 57.4% in 2007.

*combine “<100% of poverty” and “100-185% of poverty” levels (i.e., 21.3% + 42.3% = 63.6% for 1993)

**Characteristics of Women Living
At or Below 185% of Poverty, 2005-2007**

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Race			
Black	80.6 (74.4, 85.6)	84.4 (77.9, 89.2)	79.2 (71.9, 85.1)
White	40.8 (35.6, 46.2)	47.5 (42.2, 53.0)	43.1 (37.8, 48.5)
Age			
Less than 18	88.3 (65.4, 96.8)	93.4 (73.4, 98.6)	----^
18-24	79.6 (73.7, 96.8)	80.0 (73.7, 85.1)	81.5 (74.9, 86.6)
25-34	42.7 (36.8, 48.9)	53.5 (47.4, 59.5)	41.1 (35.3, 47.3)
35-55	25.5 (16.4, 37.3)	36.9 (26.2, 49.1)	40.1 (29.5, 51.8)
Education			
Less than High School	96.5 (91.2, 98.7)	93.4 (86.8, 96.9)	93.8 (86.5, 97.2)
High School	70.1 (61.4, 77.6)	76.4 (68.5, 82.9)	79.9 (71.4, 86.4)
More than High School	34.4 (29.4, 39.7)	42.9 (37.4, 48.7)	33.7 (28.7, 39.2)
Marital status			
Married	35.6 (30.5, 41.0)	43.8 (38.3, 49.4)	38.0 (33.0, 43.3)
Other	87.6 (82.7, 91.2)	88.0 (82.8, 91.8)	87.1 (81.3, 91.3)
Medicaid status			
Yes	88.9 (85.2, 91.8)	91.9 (88.4, 94.5)	89.6 (85.1, 92.8)
No	10.7 (7.3, 15.6)	22.2 (17.2, 28.1)	21.9 (17.2, 27.5)
Birthweight**			
VLBW (<1500 g)	67.4 (65.1, 69.6)	69.0 (66.7, 71.2)	67.1 (64.5, 69.6)
MLBW (1500-2499 g)	68.3 (63.6, 72.7)	73.2 (68.9, 77.1)	74.8 (69.8, 79.1)
NBW (2500+ g)	56.5 (52.0, 60.9)	61.7 (57.2, 66.1)	55.8 (51.1, 60.4)

*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

**Note: In 2005, 2006 and 2007, the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Medicaid Fact Sheet

Between the years of 1993 and 2007...

The proportion of women on Medicaid during pregnancy remained constant at about 53-61%.

The percent of Medicaid mothers receiving inadequate prenatal care decreased from 29.2% in 1993 to 16.5% in 2005, but rose to 24.5% in 2007.

The percent of Medicaid mothers receiving adequate or adequate plus prenatal care increased from 53.2% in 1993 to 74.7% in 2005, but fell to 66.9% in 2007.

In 2007...

77.8% of women on Medicaid were also on WIC.

10.4% of women on Medicaid reported income and family sizes that placed them above 185% of the poverty level.

Women that reported being on Medicaid during pregnancy were more likely to...

- be black
- be less than 18 years of age
- be unmarried
- be on WIC and
- have a less than high school education.

Women that reported having problems getting Medicaid during pregnancy were more likely to...

- be white
- be 25-34 years of age
- be married and
- not be on WIC.

Special Populations – Medicaid

What Some South Carolina Mothers Have to Say about Medicaid:

“Medicaid helped (in) understanding the complications of my pregnancy.”

“...Medicaid really needs to get their stuff together; refused to pay bills; still have doctor bills from before she was born...”

“My child was born 2 lbs 1oz and I have no rhymes or reasons why. She was sent home with a heart monitor and caffeine. Everyday is a struggle but we are managing. I thank God everyday for Medicaid, b/c my child is getting the care she needs to be strong and alive”

“Lamaze or childbirth classes should be covered by Medicaid.”

“Right now, as far as I know, Medicaid will not pay for any dental care after the age of 21 except for extractions. I don't think that is a good thing. Dental care is very important even after age 21 especially for pregnant women. I don't think there should be any limits to dental care. As a matter of fact pregnant women should have visits as often as needed.”

“Medicaid needs your help with processing paperwork!”

“My baby was born 10 weeks early at [hospital name omitted]. We received wonderful service from Social Security & the Medicaid offices; however there was a good deal of paperwork that would be difficult for some.”

“Was not approved for Medicaid even thou I didn't have insurance.”

“I was given top quality prenatal care paid for by Medicaid and I could not be more grateful. I have a lovely & healthy baby boy that is getting routine checkups paid for by Medicaid. Thanks for the help. I really need it right now.”

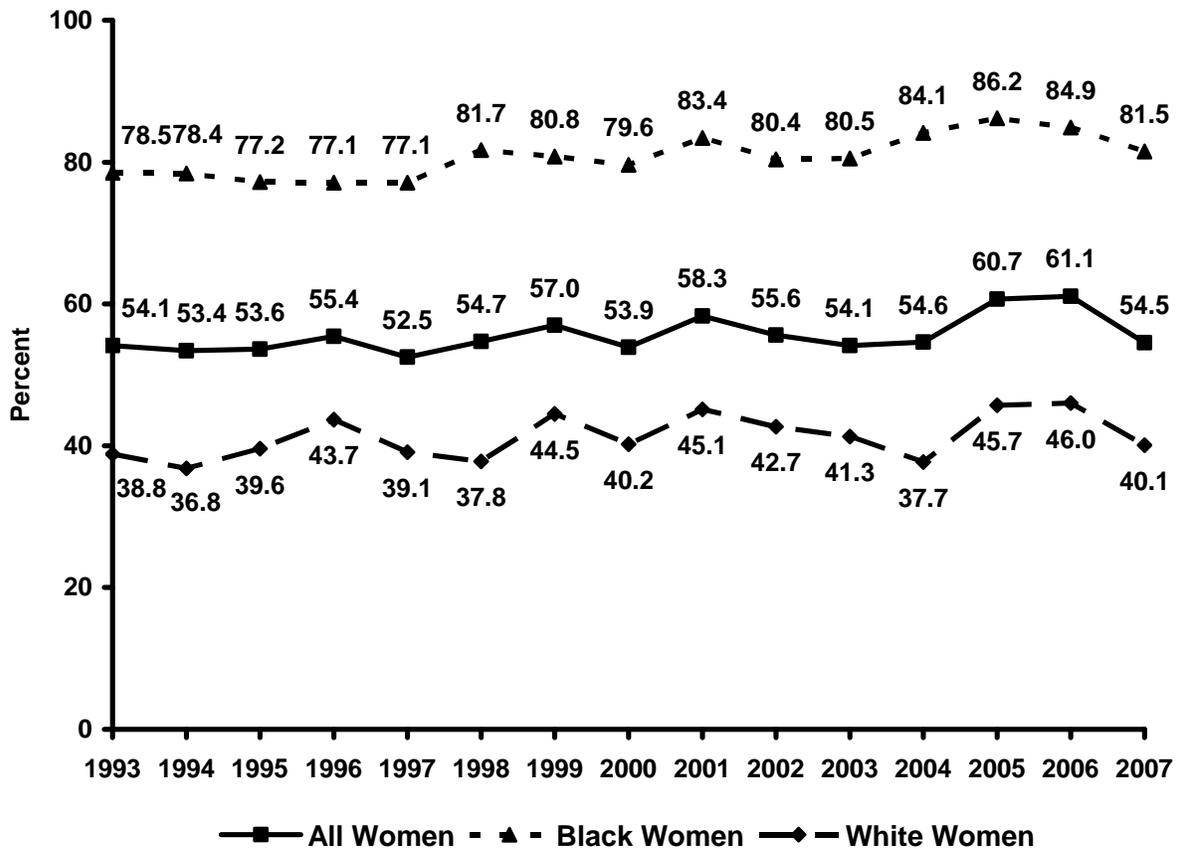
“I came to SC from [state name omitted] I had Medicaid in [state name omitted] and I did not get SC Medicaid.”

“I had to fight to get Medicaid.”

“When I first got pregnant I was living in [state name omitted] I moved to SC when I was 4 months. The prenatal care is batter here than there. I lost my Medicaid when I was 7 months and did not see a doctor until I had my baby. Medicaid was lost because I was unable to contact my doctor in [state name omitted] to cancel Medicaid there.”

Special Populations – Medicaid

Proportion of Women on Medicaid During Pregnancy*, 1993-2007



*A woman was considered to be on Medicaid if **any one** of the following was true:
 She was on Medicaid before pregnancy;
 Prenatal care was paid by Medicaid; or
 Delivery was paid by Medicaid.

Over 50% of women were on Medicaid during pregnancy during the years 1993 through 2007. Black women were twice as likely as white women to receive Medicaid.

Special Populations – Medicaid

Characteristics of Women on Medicaid During Pregnancy, 2005-2007

Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	60.7 (56.7, 64.5)	61.1 (57.2, 64.9)	54.5 (50.4, 58.5)
Race			
Black	86.2 (80.9, 90.2)	84.9 (79.3, 89.3)	81.5 (74.9, 86.7)
White	47.7 (40.5, 50.9)	46.0 (40.8, 51.3)	40.1 (35.0, 45.4)
Age			
Less than 18	99.4 (97.7, 99.9)	92.2 (75.4, 97.9)	99.6 (99.1, 99.8)
18-24	82.3 (76.9, 86.7)	82.6 (77.0, 87.1)	83.3 (77.3, 88.0)
25-34	44.2 (38.3, 50.2)	48.4 (42.6, 54.3)	36.9 (31.4, 42.8)
35-55	24.9 (16.1, 36.4)	27.8 (18.4, 39.6)	22.5 (14.5, 33.4)
Education			
Less than High School	92.4 (86.5, 95.8)	90.6 (84.2, 94.6)	85.8 (77.9, 91.2)
High School	71.1 (62.8, 78.2)	73.9 (66.2, 80.4)	76.5 (68.4, 83.1)
More than High School	39.3 (34.2, 44.6)	39.4 (34.0, 45.0)	30.2 (25.4, 35.5)
Marital status			
Married	35.5 (30.6, 40.8)	35.7 (30.7, 41.1)	28.8 (24.4, 33.7)
Other	92.8 (88.9, 95.4)	92.8 (88.8, 95.5)	90.3 (85.4, 93.7)
WIC status			
Yes	90.2 (86.5, 93.0)	86.1 (81.9, 89.5)	84.5 (79.5, 88.4)
No	19.8 (15.4, 25.1)	30.5 (25.1, 36.6)	24.0 (19.2, 29.6)
Birthweight**			
VLBW (350-1499 g)	72.3 (70.2, 74.3)	69.5 (67.4, 71.6)	72.1 (69.7, 74.3)
MLBW (1500-2499 g)	72.6 (68.3, 76.5)	74.1 (70.1, 77.7)	74.2 (69.4, 78.4)
NBW (2500+ g)	59.5 (55.1, 63.6)	59.9 (55.5, 64.1)	52.5 (48.0, 57.0)

* 95% Confidence Interval

****Note:** In 2005, 2006 and 2007, the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Special Populations – Medicaid

Characteristics of Women That Had Problems Getting Medicaid During Pregnancy, 2005-2007

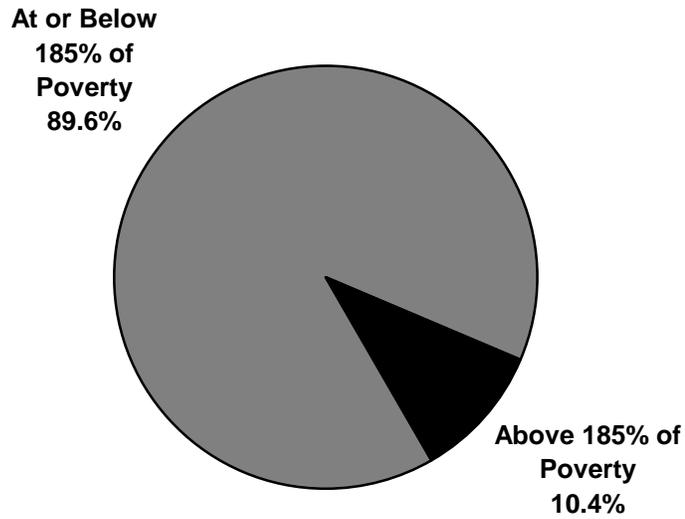
Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	14.4 (10.5, 19.5)	19.9 (15.0, 25.8)	23.9 (18.3, 30.7)
Race			
Black	10.3 (5.9, 17.3)	10.2 (5.4, 18.6)	----^
White	----^	16.9 (10.8, 25.5)	22.7 (15.5, 32.1)
Age			
Less than 18	----^	----^	----^
18-24	15.5 (10.2, 22.9)	16.9 (10.9, 25.3)	28.6 (20.4, 38.6)
25-34	14.1 (8.1, 23.3)	25.8 (17.4, 36.5)	20.2 (12.4, 31.1)
35-55	----^	----^	----^
Education			
Less than High School	----^	----^	----^
High School	----^	----^	----^
More than High School	13.4 (8.3, 20.9)	20.1 (13.2, 29.4)	14.5 (8.3, 24.2)
Marital status			
Married	16.9 (10.8, 25.3)	32.7 (23.0, 44.1)	32.4 (23.3, 43.1)
Other	12.7 (8.0, 19.5)	12.9 (8.1, 19.9)	18.7 (12.0, 27.9)
WIC status			
Yes	11.6 (7.7, 17.1)	15.4 (10.4, 22.0)	21.6 (15.4, 29.5)
No	27.5 (16.5, 42.2)	31.8 (20.7, 45.5)	32.7 (20.6, 47.6)
Birthweight**			
VLBW (350-1499 g)	18.1 (15.7, 20.8)	22.2 (19.5, 25.2)	21.1 (18.2, 24.5)
MLBW (1500-2499 g)	----^	----^	----^
NBW (2500+ g)	----^	----^	----^

*95% Confidence Interval

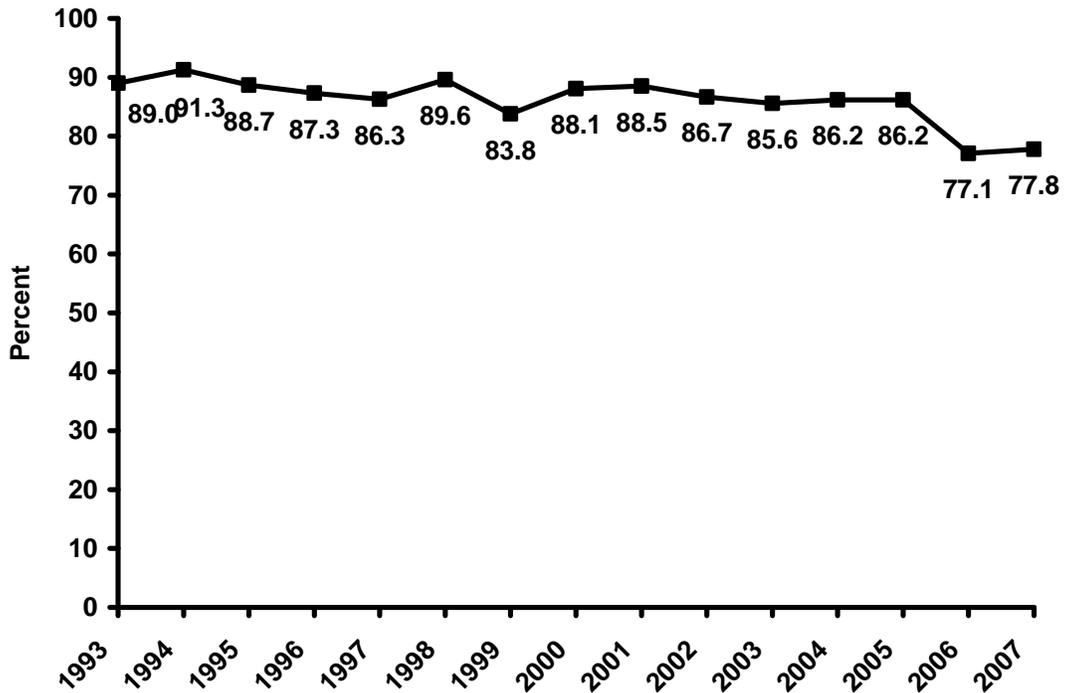
^Cell contains less than 50 respondents; data not shown

****Note:** In 2005, 2006 and 2007, the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

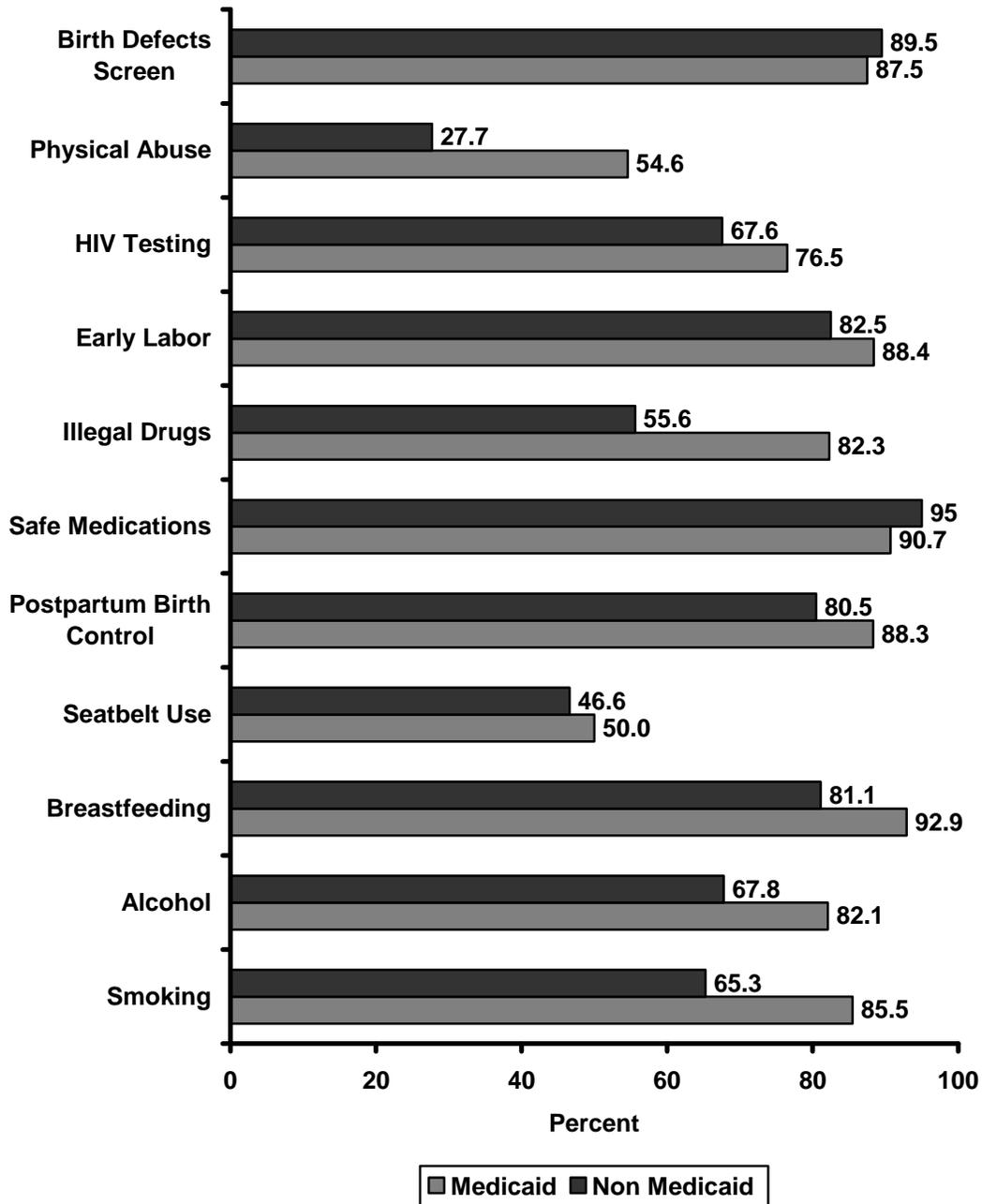
Poverty Levels among Women on Medicaid, 2007



Proportion of Women on Medicaid Who Were Also on WIC, 1993-2007



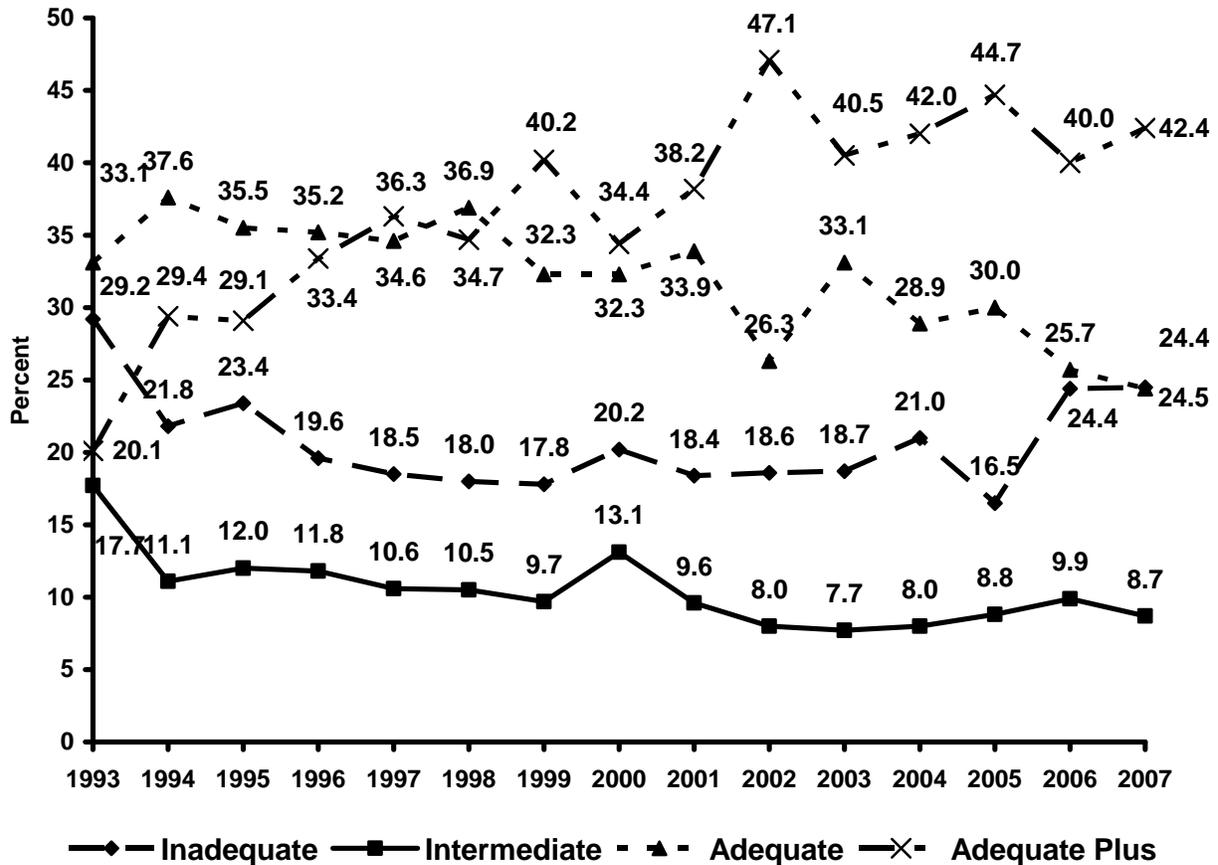
Proportion of Medicaid Mothers Who Received Information on Important Health Issues During Prenatal Care, 2007



In 2007, when compared to mothers not on Medicaid, a greater proportion of Medicaid mothers received information about all topics except safe medications and birth defects screens during pregnancy.

Special Populations – Medicaid

Adequacy of Prenatal Care* Among Women on Medicaid, 1993-2007



*The Kotelchuck Index was used to measure adequacy of prenatal care. Categories are based on month of first prenatal care visit and the number of prenatal care visits until delivery.

The percent of Medicaid mothers receiving ADEQUATE or ADEQUATE PLUS prenatal care increased substantially from 53.2% in 1993 to 74.7% in 2005, but fell to 66.9% in 2007.

The percent of Medicaid mothers receiving INADEQUATE prenatal care decreased from 29.2% in 1993 to 16.55.7% in 2005, but rose to 24.5% in 2007.

WIC Fact Sheet

Between the years of 1993 and 2007...

The proportion of women on WIC during pregnancy ranged 49.9% and 60.8%.

The proportion of women on WIC receiving inadequate prenatal care decreased from 25.8% in 1993 to 14.2% in 2005, but rose to 23.1% in 2007.

The proportion of WIC mothers who received adequate or adequate plus prenatal care increased from 56.9% in 1993 to 74.6% in 2005, but fell to 65.7% in 2007.

In 2007...

Women that reported being on WIC were more likely to:

- be black
- be less than 18 years old
- be unmarried
- be on Medicaid and
- have a less than high school education.

Over 72.1% of WIC mothers paid for their prenatal care and delivery with Medicaid, and just under 15% paid with health insurance.

At least 84.7% of WIC mothers received information during prenatal care on safe medications, smoking and drinking alcohol during pregnancy, breastfeeding, postpartum birth control, birth defects screenings, and early labor.

More than 59% of WIC mothers received information on physical abuse by their husbands or partners.

Almost 80% of WIC mothers received information on testing for HIV.

What Some South Carolina Mothers Have to Say about WIC:

“WIC offered a lot of classes”

“... I also believe that the WIC program is a wonderful program and helps promote healthy children. I do not think that anyone should be denied because of income...”

“B/C The WIC Dept is awful in [county name omitted] many women don't go b/c of the awful staff there & lack of info & general knowledge they give you.”

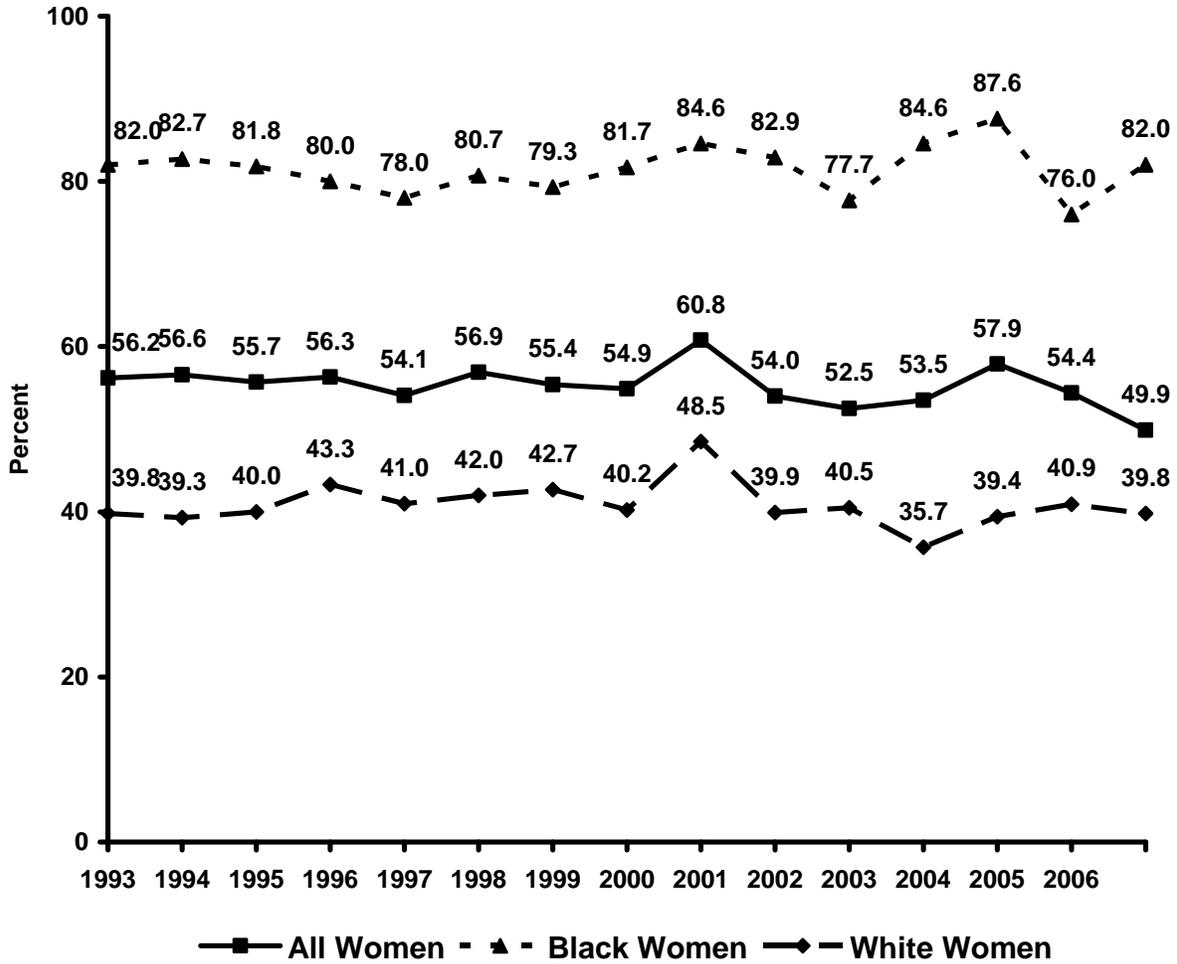
“I believe all women should be able to get WIC while they are pregnant, regardless of income. It would have helped me a lot.”

“I feel like the WIC program is very helpful, however the food that is allowed needs to be healthier & needs to rotate so that every month you do not have to get the same items. No one needs 2 dozen eggs & 2 boxes of cereal every month- Fruits & veggies are better for mother & baby.”

“I think that WIC should offer baby food once the baby turns 4-6 months old.”

“I do understand the WIC for low income families but the educational info and classes should be open to all and should be advertised.”

Proportion of the Women on WIC*, 1993-2007



*A federal supplemental food program for women, infants, and children (WIC).
 The percent of women on WIC during pregnancy remained fairly steady from 52.5% to 60.8% during the years 1993 through 2006, but dropped just below 50% in 2007.
 Black women were about twice as likely to be on WIC as white women for the years 1993-2007.

Special Populations – WIC

Characteristics of Women Who Received WIC Services, 2005-2007

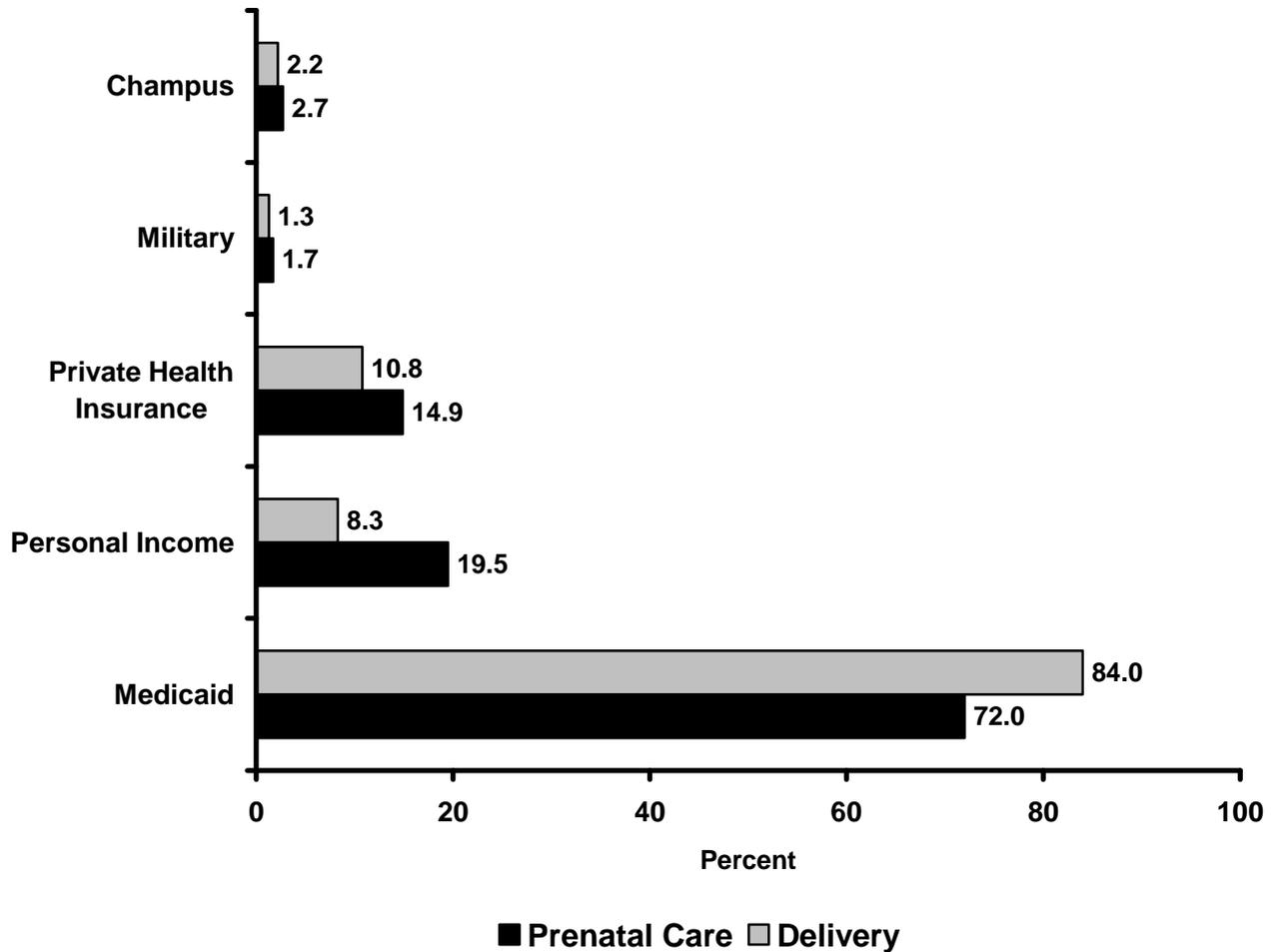
Maternal Characteristics	2005 percent (CI)*	2006 percent (CI)*	2007 percent (CI)*
Total	57.9 (53.9, 61.8)	54.4 (50.3, 58.5)	49.9 (45.8, 54.1)
Race			
Black	87.6 (82.6, 91.3)	76.0 (69.0, 81.9)	75.3 (67.9, 81.5)
White	39.4 (34.4, 44.7)	40.9 (35.7, 46.2)	34.6 (29.6, 39.9)
Age			
Less than 18	92.3 (77.7, 97.6)	80.9 (61.4, 91.9)	98.1 (95.3, 99.3)
18-24	78.0 (70.1, 81.0)	73.9 (67.4, 79.6)	71.6 (64.4, 77.8)
24-34	45.3 (39.3, 51.3)	42.4 (36.6, 48.4)	35.6 (30.1, 41.6)
35-55	23.1 (14.6, 34.5)	27.9 (18.5, 39.9)	25.2 (16.6, 36.3)
Education			
Less than High School	87.7 (81.1, 92.2)	75.9 (67.4, 82.8)	79.7 (70.8, 86.4)
High School	68.1 (59.7, 75.4)	71.2 (63.1, 78.1)	69.6 (60.9, 77.2)
More than High School	37.6 (32.5, 42.9)	35.0 (29.9, 40.6)	28.1 (23.4, 33.4)
Marital status			
Married	35.8 (30.8, 41.1)	36.4 (31.3, 41.8)	29.0 (24.5, 33.9)
Other	86.3 (81.6, 89.9)	76.6 (70.5, 81.8)	79.3 (72.9, 84.5)
Medicaid status			
Yes	86.2 (82.3, 89.4)	77.1 (72.1, 81.5)	77.8 (72.4, 82.4)
No	14.4 (10.4, 19.6)	19.3 (14.7, 24.8)	16.9 (12.7, 22.1)
Birthweight**			
VLBW (<1500 g)	60.7 (58.4, 63.0)	59.4 (57.1, 61.8)	61.1 (58.5, 63.6)
MLBW (1500-2499 g)	63.5 (58.8, 67.8)	67.7 (63.3, 71.8)	54.7 (59.2, 69.8)
NBW (2500+ g)	57.4 (53.0, 61.6)	53.3 (48.8, 57.7)	48.5 (44.0, 53.1)

*95% Confidence Interval

****Note:** In 2005, 2006 and 2007, the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Special Populations – WIC

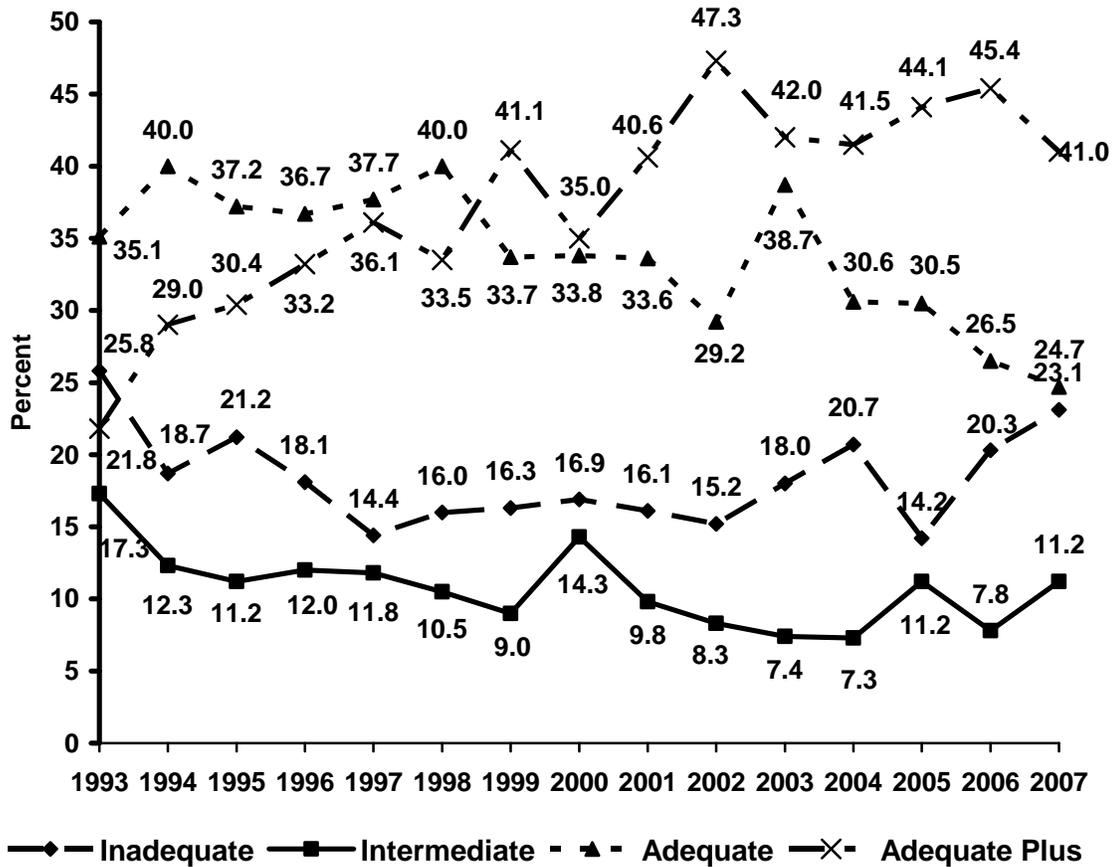
Source of Payment for Prenatal Care and Delivery for Mothers on WIC, 2007



In 2007, 72% of WIC mothers paid for their prenatal care visits and delivery with Medicaid.

Fewer than 20% of WIC mothers paid for some prenatal care with personal income, while 8.3% used personal income to pay for at least some of their delivery costs.

Adequacy of Prenatal Care* Among WIC Women, 1993-2007

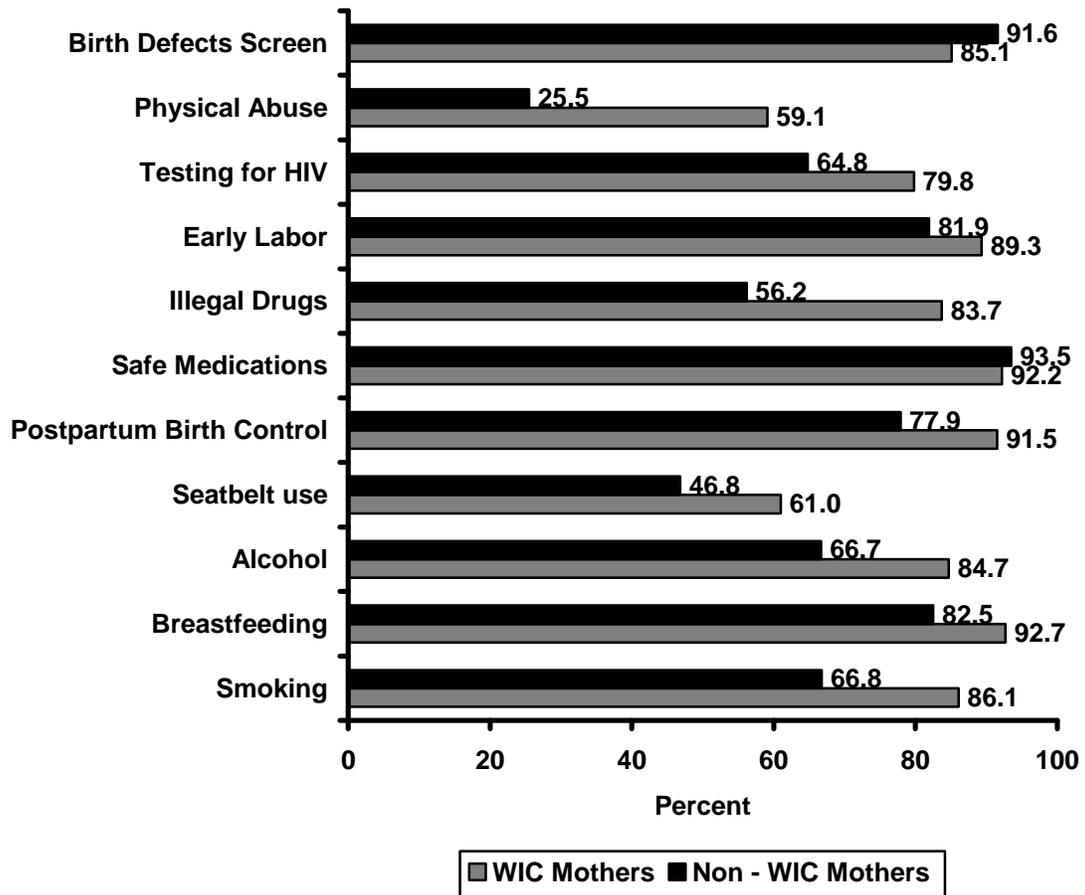


*The Kotelchuck Index was used to measure adequacy of prenatal care. Categories are based on month of first prenatal care visit and the number of prenatal care visits until delivery.

The percent of WIC mothers receiving ADEQUATE or ADEQUATE PLUS prenatal care increased from 56.9% in 1993 to 74.6% in 2005, but fell to 65.7% in 2007.

The percent of WIC mothers receiving INADEQUATE prenatal care decreased from 25.8% in 1993 to 14.2% in 2005, but rose to 23.1% in 2007.

Proportion of Mothers Who Received Information on Important Health Issues During Prenatal Care by WIC Status, 2007



When compared to non-WIC mothers, a greater proportion of WIC mothers received information on all topics, except safe medications and birth defects screenings, during prenatal care in 2007.

Teenage Mothers Fact Sheet

Between the years of 1993 and 2007...

The percent of live births to teenagers (ages 15-17) decreased from 7.4% in 1993 to 4.0% in 2007.

The proportion of unintended births among teenagers increased from 81.5% in 1993 to 87.0% in 2006, and then decreased to 77.3% in 2007.

The proportion of teen mothers receiving inadequate prenatal care decreased from 34.2% in 1993 to 20.4% in 2006, and then increased to 54.6% in 2007.

The proportion of teen mothers receiving adequate or adequate plus prenatal care increased from 50.0% in 1993 to 75.7% in 2006, and then decreased to 43.3% in 2007.

In 2005-2007...

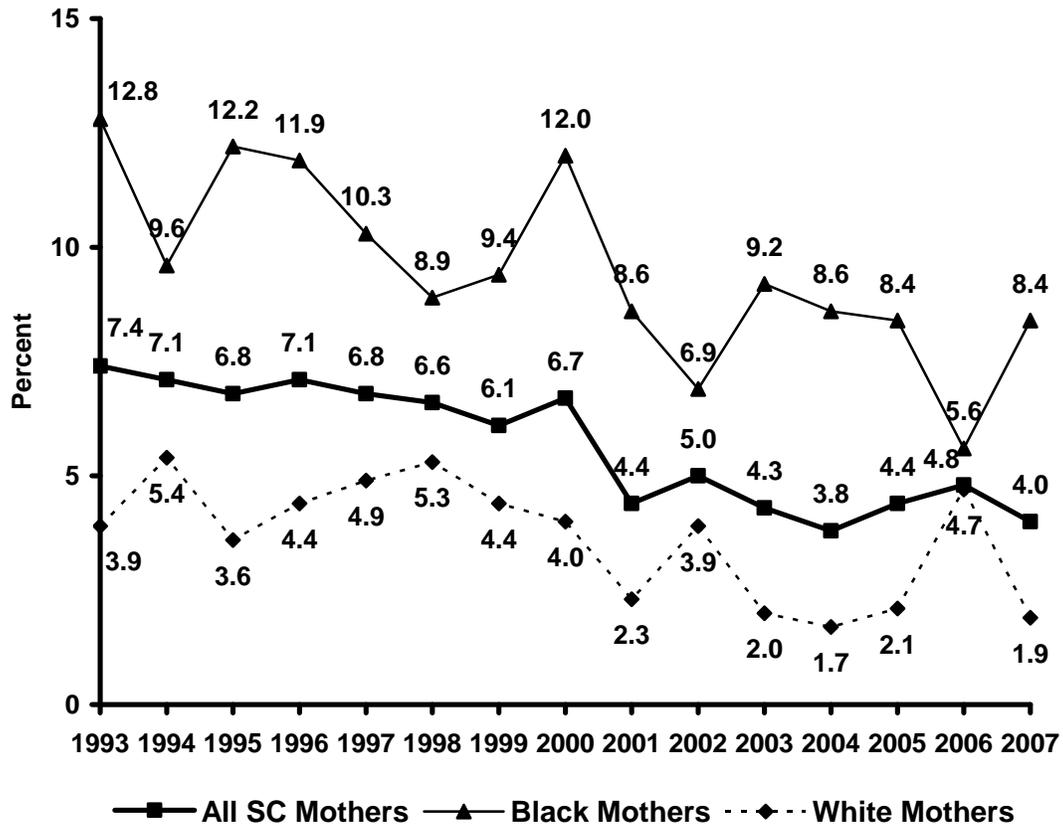
Teen mothers (ages 15-17) were more likely to deliver LBW infants than adult mothers (18 or over).

Teenage mothers were more likely to be:

black and
on WIC.

Special Populations - Teenagers (Ages 15-17)

Percent of Births to Teenage Mothers in SC, 1993-2007

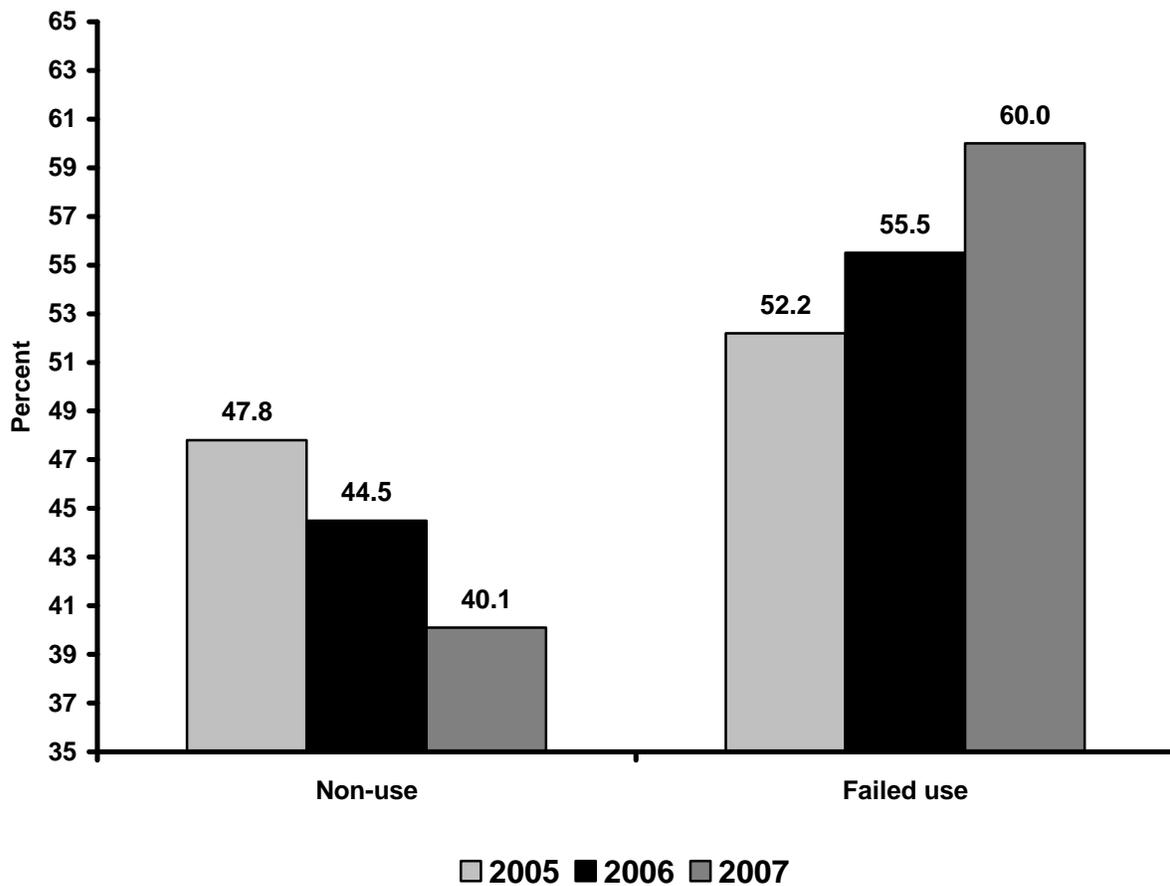


4% of all live births in South Carolina were to teenagers (ages 15-17) in 2007.

Just under 20% of all mothers who delivered live births in 2007 got pregnant for the first time as a teenager (less than 18 years of age).

Special Populations - Teenagers (Ages 15-17)

Contraceptive Behaviors among Teenage Mothers, 2005-2007



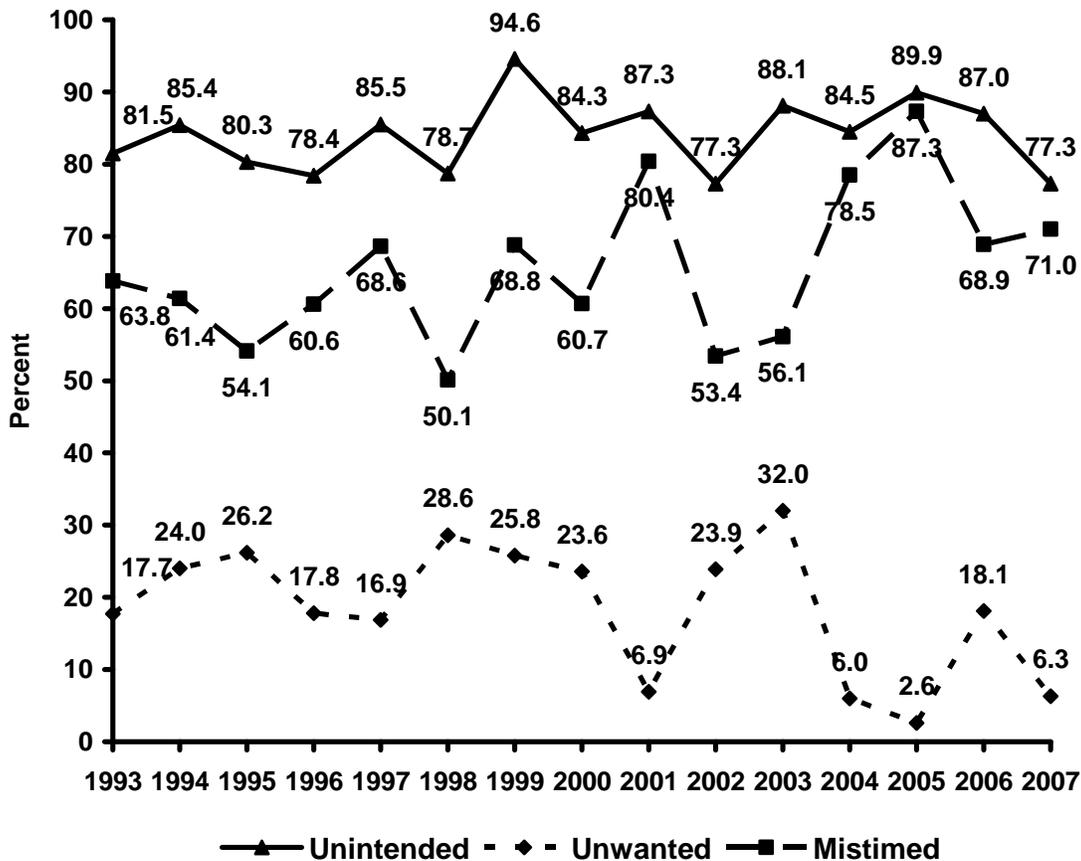
Definitions:

Failed use: Woman was using contraception when she got pregnant.

Non-use: Woman was not using contraception when she got pregnant.

Special Populations - Teenagers (Ages 15-17)

Unintended Pregnancies Among Teenage Mothers, 1993-2007



Definitions:

Intended pregnancies: those wanted then or sooner.

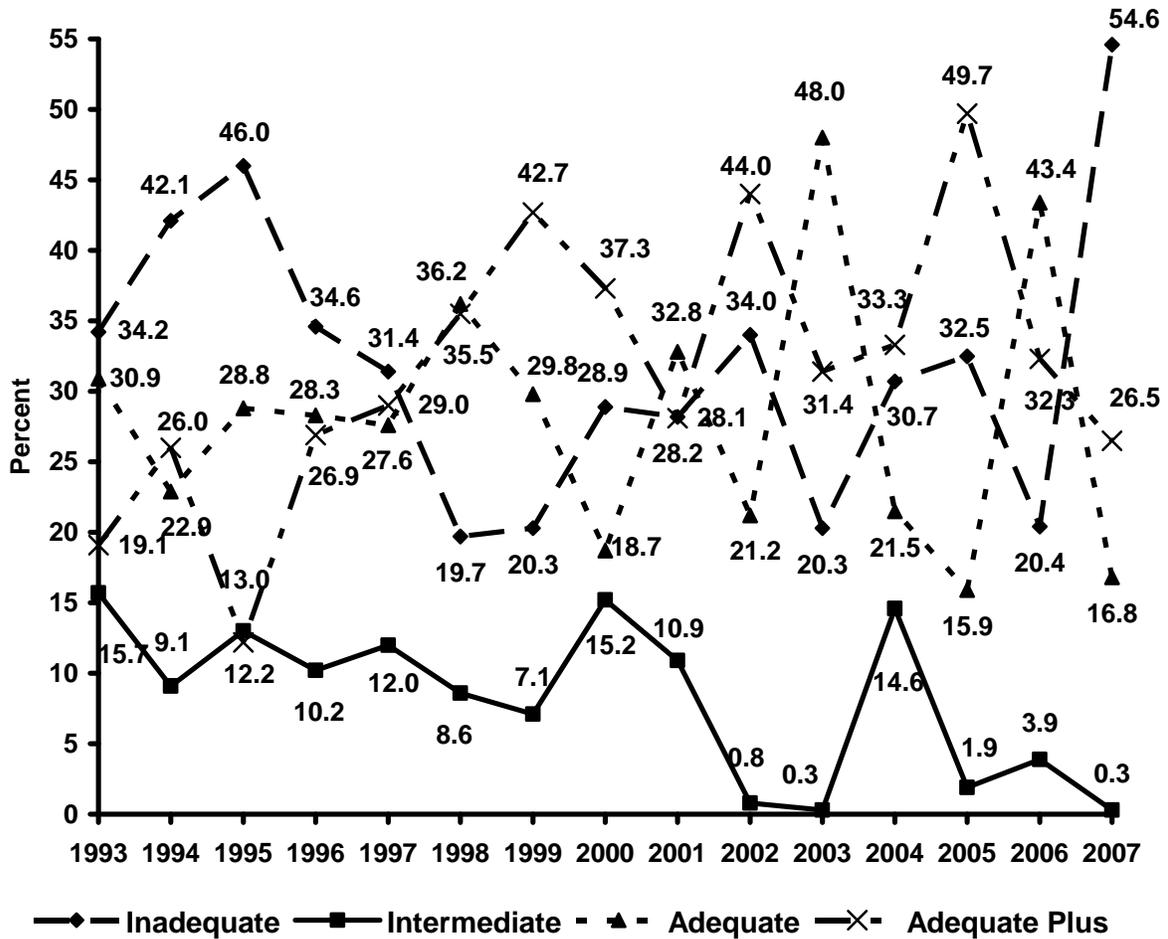
Unintended pregnancies: those which were unwanted (did not want then or anytime in the future) or mistimed (wanted to be pregnant later).

The proportion of teenage mothers that reported UNINTENDED pregnancies decreased from a high of 94.6% in 1999 to 77.3% in 2007.

The percent of unintended pregnancies that were UNWANTED decreased from a high of 32.0% in 2003 to 6.3% in 2007.

Special Populations - Teenagers (Ages 15-17)

Adequacy of Prenatal Care* Among Teenage Mothers, 1993-2007



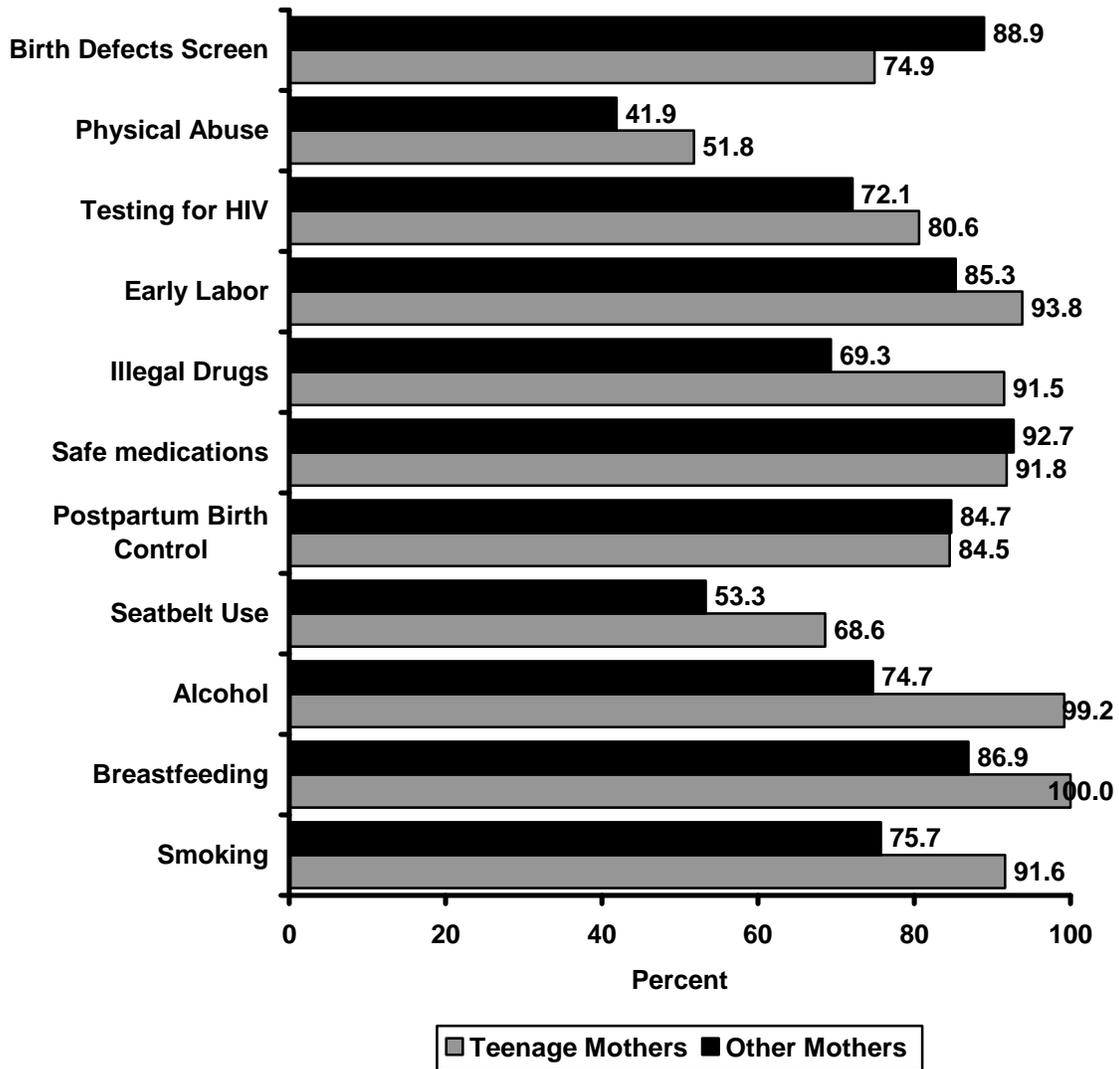
*The Kotelchuck Index was used to measure adequacy of prenatal care. Categories are based on month of first prenatal care visit and the number of prenatal care visits until delivery.

The percent of teenage mothers receiving ADEQUATE or ADEQUATE PLUS prenatal care increased from 50.0% in 1993 to 75.7% in 2006, but dropped drastically to 43.3% in 2007.

The percent of teenage mothers receiving INADEQUATE prenatal care decreased from 34.2% in 1993 to 20.4% in 2006, but increased substantially to 54.6% in 2007.

Special Populations - Teenagers (Ages 15-17)

Proportion of Teenage Mothers Who Received Information about Important Health Issues During Prenatal Care, 2007



In 2007, a greater proportion of teenagers received information on all topics except postpartum birth control methods, medications safe to take during pregnancy, and screenings for birth defects and diseases compared to adult women aged 18 and older.

Special Populations - Teenagers (Ages 15-17)

Characteristics of Teenage Mothers, 2005-2007

Maternal Characteristics	2005-2007 percent (CI)*
Total	4.4 (3.5, 5.5)
Race	
Black	7.4 (5.5, 10.0)
White	2.9 (2.0, 4.2)
WIC status	
On WIC during pregnancy	7.3 (5.8, 9.3)
Not on WIC	1.0 (0.5, 1.9)
Medicaid status	
Yes	7.3 (5.8, 9.1)
No	----^
Birthweight**	
VLBW (<1500 g)	7.0 (6.3, 7.8)
MLBW (1500-2499 g)	5.3 (4.2, 6.8)
NBW (2500+ g)	4.3 (3.3, 5.5)

*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

****Note:** In 2005, 2006 and 2007, the very low birthweight and moderately low birthweight strata had response rates that fell short of the 70% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to these strata will result in potentially biased estimates.

Reference and Resources

1. Healthy People 2010 National Health Promotion and Disease Prevention Objectives, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Health Statistics; DHHS No. (PHS) 94-1232-1.
2. South Carolina Vital and Morbidity Statistics, 2006, South Carolina Department of Health and Environmental Control, Office of Public Health Statistics and Information Systems, Division of Biostatistics, August 2008.
3. The Future of Children: Low Birthweight, from the Center for the Future of Children and Lucile Packard Foundation; Volume 5 (1), Spring 1995.
4. Health and Human Services, Federal Poverty Guidelines. <http://aspe.hhs.gov/poverty>.

APPENDIX A

South Carolina Pregnancy Risk Assessment Monitoring System (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?**

19
 Month 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 ever have any other babies who were born alive?**

- No  Go to Question 10
 Yes

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

- No
 Yes

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

- No
 Yes

10. **How old were you when you got pregnant with your first baby?**

Years old

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 one 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

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

- No
- Yes

Go to Question 15

13. 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 15

14. What were your or your husband's or partner's reasons for not doing anything to keep from getting pregnant?

Check all 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 at all)
- My husband or partner didn't want to use anything
- Other —————> Please tell us:

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.)

15. 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

16. 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

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

- No
- Yes
- I didn't want prenatal care

care → Go to Question 19

18. 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.

- | | No | Yes |
|---|----|-----|
| 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 | N | Y |
- Please tell us:

If you did not go for prenatal care, go to Page 4, Question 22.

19. 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)
- TRICARE (formerly CHAMPUS)
- Military
- Other → Please tell us:

20. 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.

	No	Yes
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

21. 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—

	No	Yes
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

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

- No
- Yes
- I don't know

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

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

- No
- Yes

24. 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.

- | | No | Yes |
|---|----|-----|
| a. High blood sugar (diabetes) that started <i>before</i> this pregnancy | N | Y |
| b. High blood sugar (diabetes) that started <i>during</i> 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 26.

25. 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.

- | | No | Yes |
|--|----|-----|
| 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.

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

- No → **Go to Page 6, Question 30**
 Yes

27. 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)

28. 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)

29. 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)

30. 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 33**
- Yes

31a. 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

31b. 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

32a. 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

32b. 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. The next question is about things that may have happened before and during your most recent pregnancy.

33. 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.)

- | | No | Yes |
|--|----|-----|
| a. A close family member was very sick and had to go into the hospital | N | Y |
| b. I got separated or divorced from my husband or partner | N | Y |
| c. I moved to a new address | N | Y |
| d. I was homeless | N | Y |
| e. My husband or partner lost his job . . . | N | Y |
| f. I lost my job even though I wanted to go on working | N | Y |
| g. I argued with my husband or partner more than usual | N | Y |
| h. My husband or partner said he didn't want me to be pregnant | N | Y |
| i. I had a lot of bills I couldn't pay | N | Y |
| j. I was in a physical fight | N | Y |
| k. My husband or partner or I went to jail | N | Y |
| l. Someone very close to me had a bad problem with drinking or drugs | N | Y |
| m. Someone very close to me died | N | Y |

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

34a. 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

34b. 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.

35a. 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

35b. 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.)

36. When was your baby due?

<input style="width: 50px; height: 30px;" type="text"/> _____ Month	<input style="width: 50px; height: 30px;" type="text"/> _____ Day	<input style="width: 50px; height: 30px;" type="text"/> _____ Year
---	---	--

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

<input style="width: 50px; height: 30px;" type="text"/> _____ Month	<input style="width: 50px; height: 30px;" type="text"/> _____ Day	<input style="width: 50px; height: 30px;" type="text"/> _____ Year
---	---	--

- I didn't have my baby in a hospital

Go to Page 8, Question 39

38. After you were *admitted* to the hospital to deliver your new baby, were you transferred to another hospital *before* your baby was born?

- No
 Yes

39. When was your baby born?

<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------

Month Day Year

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

<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------

Month Day Year

- I didn't have my baby in a hospital

41. 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)
 TRICARE (formerly CHAMPUS)
 Military
 Other —————> Please tell us:

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

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

- No
 Yes
 I don't know

43. 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 46**

44. Is your baby alive now?

- No —————> **Go to Page 10, Question 58**
 Yes

45. Is your baby living with you now?

- No —————> **Go to Page 10, Question 58**
 Yes

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

- No
 Yes —————> **Go to Question 48**

47. What were your reasons for not breastfeeding your new baby?

Check all that apply

- My baby was sick and could not breastfeed
- I was sick or on medicine
- I had other children to take care of
- I had too many household duties
- I didn't like breastfeeding
- I didn't want to be tied down
- I was embarrassed to breastfeed
- I went back to work or school
- I wanted my body back to myself
- Other _____ → Please tell us:

If you did not breastfeed your new baby, go to Question 51.

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

- No
- Yes _____ → Go to Question 50

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

_____ Weeks **OR** _____ Months

- Less than 1 week

50. 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 Page 10, Question 58.

51. 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

52. 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

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

- Always
- Often
- Sometimes
- Rarely
- Never

54. 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

55. Has your new baby had a well-baby checkup?

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

- No
 Yes

56. Has your new baby gone as many times as you wanted for a well-baby checkup?

- No
 Yes → **Go to Question 58**

57. Did any of these things keep your baby from having a well-baby checkup?

Check all that apply

- I didn't have enough money or insurance to pay for it
 I couldn't find a doctor that would accept Medicaid
 I had no way to get my baby to the clinic or office
 I didn't have anyone to take care of my other children
 I couldn't get an appointment
 My baby was too sick to go for routine care
 Other → Please tell us:

58. 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 60**

59. 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:

If you or your husband or partner is not doing anything to keep from getting pregnant now, go to Question 61.

60. What kind of birth control are you or your husband or partner using *now* 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:

The next few questions are about the time during the *12 months before* your new baby was born.

61. 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 Families (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:

62. 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

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

People

The next few questions are on a variety of topics.

If you were on Medicaid before you got pregnant with your new baby, go to Question 66.

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

No → **Go to Question 66**
 Yes

65. Did you have any problems getting Medicaid during your most recent pregnancy?

No
 Yes

66. During your most recent pregnancy, did you feel you *needed* any of the following services?

For each one, circle **Y** (Yes) if you felt you needed the service or **N** (No) if you did not feel you needed the service.

Did you need—

	No	Yes
a. Childbirth classes	N	Y
b. Parenting classes	N	Y
c. Help with an alcohol or drug problem	N	Y
d. Help to reduce violence in your home	N	Y
e. Counseling information for family and personal problems	N	Y
f. Help to quit smoking	N	Y
g. Help with or information about breastfeeding	N	Y
h. Other	N	Y

Please tell us:

67. During your most recent pregnancy, did you receive any of the following services? For each one, circle **Y** (Yes) if you received the service or **N** (No) if you did not receive the service.

Did you receive—

- | | No | Yes |
|--|----|-----|
| a. Childbirth classes | N | Y |
| b. Parenting classes | N | Y |
| c. Help with an alcohol or drug problem | N | Y |
| d. Help to reduce violence in your home | N | Y |
| e. Counseling information for family and personal problems | N | Y |
| f. Help to quit smoking | N | Y |
| g. Help with or information about breastfeeding | N | Y |
| h. Other | N | Y |
- Please tell us:

If your baby is no longer alive or is not living with you, go to Question 70.

68. Do you have an infant car seat(s) for your new baby?

- No → **Go to Question 70**
- Yes

69. When your new baby rides in a car, truck, or van, how often does he or she ride in an infant car seat?

- Always
- Often
- Sometimes
- Rarely
- Never

70. Since your new baby was born, have you had a postpartum checkup for yourself? (A postpartum checkup is the regular checkup a woman has after she gives birth.)

- No → **Go to Question 72a**
- Yes

71. At that visit, did a doctor, nurse, or other health care worker give you some form of birth control or a prescription for birth control?

- No
- Yes

72a. Since your new baby was born, how often have you felt down, depressed, or hopeless?

- Always
- Often
- Sometimes
- Rarely
- Never

72b. Since your new baby was born, how often have you had little interest or little pleasure in doing things?

- Always
- Often
- Sometimes
- Rarely
- Never

73. 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.

- | | No | Yes |
|--|----|-----|
| 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 |

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

- No →
- Yes

Go to Question 76

75. 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.

	No	Yes
a. Before my most recent pregnancy	N	Y
b. During my most recent pregnancy	N	Y
c. After my most recent pregnancy	N	Y

The next question asks for your opinion.

76. What do you think are the signs and symptoms of preterm labor (early labor more than 3 weeks before a baby is due)? For each item, circle **Y** (Yes) if you think it is a sign or symptom, circle **N** (No) if you don't think it's a sign or symptom, or circle **DK** (Don't Know) if you don't know if it's a sign or symptom.

	No	Yes	Don't Know
a. Cramps that feel like you're on your period (with or without diarrhea).	N	Y	DK
b. Low, dull backache	N	Y	DK
c. Headache with nausea or vomiting.	N	Y	DK
d. Clear, pink, or brownish fluid (water) leaking from your vagina	N	Y	DK
e. Contractions every 10 minutes or more often (painful or not) . . .	N	Y	DK
f. Swelling of the legs and/or ankles	N	Y	DK
g. Frequent urination	N	Y	DK
h. Feeling that your baby is pushing down.	N	Y	DK

77. What is today's date?

Month	Day	Year

**Please use this space for any additional comments you would like to make
about the health of mothers and babies in South Carolina.**

Thanks for answering our questions!

*Your answers will help us work to make South Carolina
mothers and babies healthier.*

APPENDIX B

Technical Notes: Sampling, Computation of Analysis Weights, Distribution of Response Rates, and Confidence Interval Calculation

Appendix B. Technical Notes

This section presents an overview of 1) the sampling approach used in PRAMS, 2) the derivation of the analysis weights applied to the weighted dataset, 3) the distribution of response rates, and 4) a description of the method used to calculate the confidence intervals presented.

Sampling

The SC PRAMS project utilizes a systematic stratified sampling strategy that takes birthweight into consideration. This is the most appropriate and efficient sampling strategy when the goal is to ensure large sample strata from groups that occur at low frequency in the total population (e.g. very low birthweight (VLBW) infants (<1,500 grams) account for close to 2% of the total live births). Therefore, SC PRAMS has sampled women having live MLBW (moderately low birthweight infants (1,500-2,499 grams) and VLBW infants at a higher rate than women having normal birthweight infants (2500 grams or more). Over-sampling of the low frequency strata ensures that reliable estimates of statistics can be presented separately for women having LBW infants.

Table A. Sampling fractions applied to each birthweight strata.

Birthweight	Sampling fraction
Very low birthweight (<1500 grams)	1/1
Moderately low birthweight (1500-2499 grams)	2/13
Normal birthweight (\geq 2500 grams)	1/69

Computation of Analysis Weights

The SC PRAMS survey is designed to provide **statewide estimates** of the characteristics of women delivering live infants -- for example, the percentages of mothers who initiated prenatal care in the first, second, and third trimester, respectively; or the percentage of mothers who drank alcohol three months before they got pregnant or during the last trimester. To make such estimates each respondent must be assigned an “analysis weight.” This is a multiplier that is the

number of women in the population she represents after adjustments for survey design, non-response and frame coverage. The analysis weight is the product of three sub-components weights. Each sub-component weight accounts for a different factor. The first sub-component adjusts for the sample design, the second adjusts for non-response, and the third for omissions in the sampling frame (i.e. non-coverage of the sampling frame). The PRAMS staff received technical assistance from the CDC to develop and compute the analysis weights applied in the weighted dataset. The three steps involved in deriving the analysis weights are described next:

A. Adjustment for sample design: the first component is called the *sampling weight* and it corresponds to the reciprocal of the sampling fraction (shown on the previous page). For example, in the moderately low birthweight stratum, 2 out of every 13 mothers is sampled. The sampling weight applied to respondents in this particular stratum is 6.5 ($13/2$).

B. Adjustment for non-response: the second component is called the *unit non-response weight*. The failure of the mother in the sample to complete a questionnaire is called unit non-response. Response adjustment cells were identified from extensive analysis of maternal characteristics affecting response rate within each birthweight stratum. The important maternal characteristics affecting response rates were maternal age, education, marital status, and race. The unit non-response weight is the product of the sampling weight times the inverse of the response rate specific to that response adjustment cell (based on maternal age, race, education, and marital status). For example, if the weight for a respondent from the moderately low birthweight stratum was 6.5 and that respondent was in a response adjustment cell with a 65 percent response rate, then the non-response adjusted weight for that respondent would be 10 ($6.5/0.65$). The lower the response rate for a particular response adjustment cell, the larger the adjustment for non-response. Computation of the unit response weights rests on the assumption that within a stratum and non-response adjustment cell, the average of the answers of the respondents is the same as the average of the answers of the non-respondents. As a rule, if there are fewer than 25 respondents in any response adjustment cell, the response adjustment category is combined with one or more other response categories until all response categories have at least 25

respondents. This ensures enough respondents in each category so that the average of their responses is not unduly influenced by a few women who participated.

C. Adjustment for omissions in the sampling frame (incomplete frame): The third component is called the sampling frame *non-coverage weight*. This weight adjusts for women whose live births were not included in the sampling frame (birth registry). The South Carolina birth registry system in the Office of Vital Records is efficient and expedient; therefore, the corrected sampling frame is very similar to the original frame. As a result, the ratio is close to 1 and the adjustment for non-coverage is very small.

Distribution of Response Rates

The weighted response rate for each sampling stratum that the CDC considers to be the threshold for epidemiologic validity is 70%. In 2007, the weighted response rates by sampling strata achieved by South Carolina PRAMS are as follows:

Birthweight	Response Rate
Very low birthweight (<1500 grams)	62%
Moderately low birthweight (1500-2499 grams)	58%
Normal birthweight (\geq 2500 grams)	69%
Overall	68%

The overall weighted response rate for 2007 South Carolina PRAMS data is 68%. Because this response rate is below the 70% threshold, *any results obtained using 2007 SC PRAMS data should be interpreted with caution.*

Calculation of Confidence Intervals

Background on Confidence Interval Calculation

In general, under the assumption of normality, a 95% confidence interval is constructed around a point estimate (*e.g.* a mean, percentage, proportion, regression parameter estimate, etc.) by using the following formula: $CI = \text{estimate} \pm (1.96 * SE)$, where SE is the standard error of the estimate. Here $SE = s/\sqrt{n}$, where s is the standard deviation and n is the number of observations in the sample. Note that s^2 is the variance of the point estimate. Generally the point estimate and the variance, s^2 , are calculated and then the confidence interval is constructed.

Variance Estimation for Complex Sampling Designs

When analyzing data from a survey that employs a complex sampling design, such as PRAMS, this variance needed to construct the confidence interval can not be correctly calculated using the standard formula and, therefore, must be estimated. The CDC recommends the use of the Taylor series linearization variance estimation technique. This technique does not directly estimate the variance, but rather uses a Taylor series expansion to estimate the point estimate and then calculates the variance of this estimated point estimate. This variance estimation method is appropriate for several sampling designs including stratified random sampling without replacement, which is the design used by SC PRAMS.

Confidence Interval Transformation

In addition to using an estimated variance, confidence intervals for proportions, percentages, etc. using PRAMS data are calculated using a logit transformation. This logit transformation ensures that confidence intervals are between 0 and 1 for proportions and between 0% and 100% for percentages. This logit transformation also causes the confidence interval to be asymmetric.

Interpretation

SC PRAMS uses the confidence interval interpretation that is recommended by the CDC. That is, “if the same sampling procedure were used to obtain many samples, and if a 95% confidence interval for a given population parameter were calculated from each sample, then 95% of the confidence intervals would actually include the value of the population parameter; 5% would not. ... A ‘practical’ interpretation of the 95% confidence interval is it includes the value of the population parameter with a probability of 0.95.”¹

Statistical Software Packages

Correct confidence intervals that account for the complex sampling scheme used to gather PRAMS data and that use appropriate transformations can be constructed using SUDAAN software as well as the SURVEY procedures in SAS and the SVY procedures in STATA. SC PRAMS usually conducts analyses using SAS-callable SUDAAN.

¹ Guidelines for State Analyses of PRAMS Data.
http://www2a.cdc.gov/prams/analysisdocs/guidelines/Guidelines_for_State_Analysis.doc. Accessed 03/03/2008.