

**SOUTH CAROLINA**  
**PRAMS**  
PREGNANCY RISK ASSESSMENT MONITORING SYSTEM

**2008 DATABOOK**



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

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# **South Carolina PRAMS 2008 Databook**

**Volume X**

**October 2010**

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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**

## TABLE OF CONTENTS

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<b>Foreword</b> .....	<b>vi</b>
<b>Acknowledgements</b> .....	<b>vii</b>
<b>Background and Project Description</b> .....	<b>viii</b>
<b>Prenatal Care</b>	
Prenatal Care Fact Sheet .....	1
What Some South Carolina Mother Have to Say about Prenatal Care .....	2
Proportion of Women Who Entered Prenatal Care During the First Trimester, 1993-2008 .....	3
Characteristics of Women Entering Prenatal Care During the First Trimester, 2006-2008 .....	4
Proportion of Women Who Entered Prenatal Care as Early as Wanted, 2006-2008 .....	5
First Trimester Care for Women Who Did Not Receive Prenatal Care as Early as They Wanted, 2006-2008 .....	5
Prenatal Care Entry: Differences by Parity, 1993-2008 .....	6
Proportion of Women Who Did Not Enter Prenatal Care as Early as They Wanted, 1993-2008 .....	7
Characteristics of Women Who Did Not Enter Prenatal Care as Early as They Wanted, 2006-2008 .....	8
Barriers to Entering Prenatal Care as Early as Wanted, 2008. ....	9
Adequacy of Prenatal Care Utilization Index Standards, 2006-2008 .....	10
Distribution of Adequacy of Prenatal Care Utilization Index by Maternal Characteristics, 2008 .....	11
Multivitamin Use Prior to Becoming Pregnant, 2006-2008 .....	12
Percent of Women Receiving Information on Important Topics During Prenatal Care Visits, 2008 .....	13
<b>Family Planning</b>	
Family Planning Fact Sheet .....	14
What Some South Carolina Mothers Have to Say about Family Planning .....	15
Percent of Unintended Pregnancies, 1993-2008 .....	16
Unintended Pregnancies by Maternal Characteristics, 2006-2008 .....	17
Contraceptive Behavior Among Women with Unintended Pregnancies, 2008 .....	18
Percentage of Women Who Entered Prenatal Care in the First Trimester (weeks 1-12) by Pregnancy Intention: 2006-2008. ....	19
Postpartum Birth Control, 1993-2008 .....	20
Postpartum Birth Control Methods, 2005-2007 .....	21

<b>Smoking</b>	
Smoking Fact Sheet .....	22
What Some South Carolina Mothers Have to Say about Smoking .....	23
Proportion of Women Who Smoked Cigarettes 3 Months Before Pregnancy, During the Last Trimester, and During the 3-6 Months After Delivery, 1993-2008 .....	24
Proportion of Smokers Who Quit While Pregnant, 1993-2008 .....	24
Characteristics of Women Who Smoked Cigarettes during the Three Months Before Pregnancy, 2006-2008 .....	25
Proportion of Mothers Who Smoked Cigarettes During the Last Trimester of Pregnancy, 1993-2008 .....	26
Characteristics of Mothers Who Smoked Cigarettes During the Last Trimester of Prenancy, 2006-2008 .....	27
Proportion of Smokers Who Quit Smoking While Pregnant and Remained as Non-Smokers After Delivery, 1993-2008 .....	28
Smoking Behavior During Pregnancy Among Women Who Were Smokers Before Pregnancy, 1993-2008 .....	28
 <b>Alcohol Use</b>	
Alcohol Consumption Fact Sheet .....	29
What Some South Carolina Mothers Have to Say about Alcohol .....	30
Proportion of Women Who Drank During the Three Months Before Pregnancy, 1993-2008 .....	31
Characteristics of Mothers Who Drank Alcohol During the Three Months Before Pregnancy, 2006-2008 .....	32
Number of Drinks Consumed Per Week During the Three Months Before Pregnancy, 2008 .....	33
Characteristics of Mothers Who Drank During the Last Trimester of Pregnancy, 2006-2008 .....	34
 <b>Stress and Social Support</b>	
Stress and Social Support Fact Sheet .....	35
What Some South Carolina Mothers Have to Say about Stress and Stressful Life Events .....	36
Proportion of Women Who Experienced Stressful Life Events in the Twelve Months Prior to Delivery, 2008 .....	37
Number of Stressful Life Events Experienced in the Twelve Months Prior to Delivery by Race, 2008. ....	38
Characteristics of Women Experiencing High Levels of Stress, 2006-2008 .....	39
 <b>Physical Abuse</b>	
Physical Abuse Fact Sheet .....	40
What Some South Carolina Mothers Have to Say about Physical Abuse .....	41
Percent of Women Who Were Physically Abused by Husband/ Partner During Pregnancy, 1993-2008 .....	42

Characteristics of Women Who Were Physically Abused Before or During Pregnancy by Husband, Partner, Ex-Husband, or Ex-Partner, 2006-2008...	43
Physical Abuse Before and During Pregnancy by Perpetrator, 2008 .....	44
<b>Maternal Health</b>	
Maternal Health Fact Sheet .....	45
What Some South Carolina Mothers Have to Say about Maternal Health .....	46
Maternal Problems During Pregnancy, 2006-2008 .....	47
Proportion of Women Who Were Hospitalized At Least One Night During Pregnancy, 1993-2008 .....	48
Length Of Maternal Hospitalizations During Pregnancy, 2008 .....	48
Average Hospital Stay After Delivery (Number of Nights), 1993-2008 .....	49
Oral Health During Pregnancy, 2008 .....	50
Postpartum Depression Symptoms, 2005-2008 .....	51
<b>Infant Health</b>	
Infant Health Fact Sheet .....	52
What Some South Carolina Mothers Have to Say about Infant Health .....	53
Number of Nights Infant Stayed in Hospital After Delivery, 2008.....	54
Proportion of Infants Who Stayed in an Intensive Care Unit by Birthweight, 1993-2008 .....	55
Characteristics of Women Who Stayed In The Hospital For More Than 48 Hours After Delivery, 2006-2008 .....	56
Proportion of Infants Exposed to Smoke Daily, 2008 .....	57
Infant Sleep Position, 1995-2008 .....	58
<b>Breastfeeding</b>	
Breastfeeding Fact Sheet .....	59
What Some South Carolina Mothers Have to Say about Breastfeeding .....	60
Trend of Breastfeeding for More than One Week, 1993-2008 .....	61
Trend of Breastfeeding for More than One Month, 1993-2008 .....	62
Characteristics of Women Who Did Not Breastfeed or Breastfed for Less than One Week, 2006-2008 .....	63
Duration of Breastfeeding, 2008 .....	64
<b>Financial Issues</b>	
Financial Issues Fact Sheet .....	65
What Some South Carolina Mothers Have to Say about Financial Issues .....	66
Total Annual Household Income for the Women During Pregnancy, 2006-2008 .....	67
Sources of Income During Pregnancy, 2006-2008 .....	68

Characteristics of Women Earning Wages, 2006-2008 .....	69
Characteristics of Women Receiving Public Assistance, 2006-2008 .....	70
Sources of Payment for Prenatal Care, 2006-2008 .....	71
Sources of Payment for Delivery, 2006-2008 .....	72
Percent of Women Who Used Personal Income, Medicaid, or Private Health Insurance to Pay for Prenatal Care or Delivery, 1993-2008 .....	73
Poverty Status Among Women Who Delivered a Live Birth, 1993-2008 .....	74
Characteristics of Women Living At or Below 185% of Poverty, 2006-2008 .....	75

### **Special Populations - Medicaid**

Medicaid Fact Sheet .....	76
What Some South Carolina Mothers Have to Say about Medicaid .....	77
Proportion of Women on Medicaid During Pregnancy, 1993-2008 .....	78
Characteristics of Women on Medicaid During Pregnancy, 2006-2008 .....	79
Characteristics of Women that Had Problems Getting Medicaid During Pregnancy, 2006-2008 .....	80
Poverty Levels Among Women on Medicaid, 2008 .....	81
Proportion of Women on Medicaid Who Were Also on WIC, 1993-2008 .....	81
Proportion of Medicaid Mothers Who Received Information on Important Health Issues During Prenatal Care, 2006-2008 .....	82
Adequacy of Prenatal Care Among Women on Medicaid, 1993-2008 .....	83

### **Special Populations - WIC**

WIC Fact Sheet .....	84
What Some South Carolina Mothers Have to Say about WIC ..	85
Proportion of the Women on WIC, 1993-2008 .....	86
Characteristics of Women Who Received WIC Services, 2006-2008 .....	87
Source of Payment for Prenatal Care and Delivery for Mothers on WIC, 2008 .....	88
Adequacy of Prenatal Care Among WIC Women, 1993-2008 .....	89
Proportion of WIC Mothers Who Received Information on Important Health Issues During Prenatal Care, 2008 .....	90

### **Special Populations - Teenage Mothers**

Teenage Mothers Fact Sheet (Ages 15-17) .....	91
Percent of Births to Teenage Mothers in SC, 1993-2008 .....	92
Contraceptive Behaviors Among Teenagers, 2006-2008 .....	93
Unintended Pregnancies Among Teenage Mothers, 1993-2008 .....	94
Adequacy of Prenatal Care Among Teenage Mothers, 1993-2008 .....	95
Proportion of Teenage Mothers Who Received Information About Important Health Issues During Prenatal Care, 2008 .....	96
Characteristics of Teenage Mothers, 2006-2008 .....	97

**References and Resources** ..... 98

**Appendices**

- A. SC Pregnancy Risk Assessment Monitoring System (PRAMS)  
    Questionnaire – Phase V
- B. Technical Notes: Sampling, Computation of Analysis Weights, Distribution of  
    Response Rates, and Confidence Interval Calculation

## Foreword

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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

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*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**

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### **I. Background**

In 2007, South Carolina's infant mortality rate was 8.5 deaths per 1,000 live births. From 1989 to 2007, the overall infant mortality rate declined from 12.8 to 8.5. The race-specific infant mortality rate for white infants was 6.2 deaths per 1,000 live births in 2007, while the rate was 12.9 deaths per 1,000 births for infants of a race other than white (i.e. black or other). 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, with non-respondents being followed-up in a telephone phase. 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 (such as SUDAAN, SAS survey procedures or Stata svy procedures) should be used to conduct analyses on one or more years of completed survey data.

Ongoing survey data collection was initiated in January, 1993. Sixteen years of survey data have been collected and compiled. The response rates have fluctuated between a low of 59% to a high of 75%, with an overall unweighted response rate for all years, 1993-2007, of 69.4%. The response rates for 2006, 2007, and 2008 were 66.9% and 68.0%, and 59.2% respectively. The CDC regards a response rate of 65% or above as epidemiologically valid. **Since the 2008 South Carolina PRAMS response rate is below the 65% threshold, any results obtained using 2008 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 and biostatistics program directors throughout the agency (SC DHEC).

### **IV. Using this Databook**

The SC PRAMS Databook is organized into fourteen sections covering broad areas of maternal and infant health. In the first thirteen sections, “fact sheets” precede each section with data highlights for that topic area. The fourteenth 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**

From 1993-2008, the percentage of women who entered prenatal care during the first trimester (weeks 1-12) increased from 69.6% to 75.0% overall. Although 75% of women in 2008 entered prenatal care during the first trimester, this percentage was the lowest since 1996.

In 2008:

Women entering prenatal care later than the first trimester of pregnancy were more likely to:

- be non-Hispanic black
- be less than 25 years of age
- have less than a high school education
- be unmarried and
- be on Medicaid.

Women that received inadequate prenatal care were more likely to:

- be non-Hispanic black
- be less than 25 years of age and
- have less than a high school education.

18.5% of women did not receive prenatal care as early as they wanted. However, 34.8% of those women actually entered care during the first trimester.

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

- not having enough money or insurance (37.1%)
- not being able to get an earlier appointment (33.1%)
- not yet receiving her Medicaid card (32.2%)
- doctor or health care plan would not start care (22.2%).

## **Prenatal Care**

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

*“Speaking as a mother over the age of 35; I believe that it is very important to have the proper prenatal care: It's for the better of your health and the baby's health.”*

*“Get prenatal care and take care of yourself, eat good and get a lot of rest.”*

*“As a labor and delivering nurse I am concerned at the overall health that our pregnant mothers are in. The obesity rate has increased significantly, along with mothers just not really worrying about taking prenatal vitamins or getting regular care.”*

*“I had no prenatal care, I did not know that I was pregnant.”*

*“I think that it is very important to take care of yourself the best that you can so that you can have a healthy baby. Make sure to take prenatal care. I also think that you should try and keep the stress level in your life as low as possible.”*

*“Seek prenatal care if or if not whether you are sure about being pregnant.”*

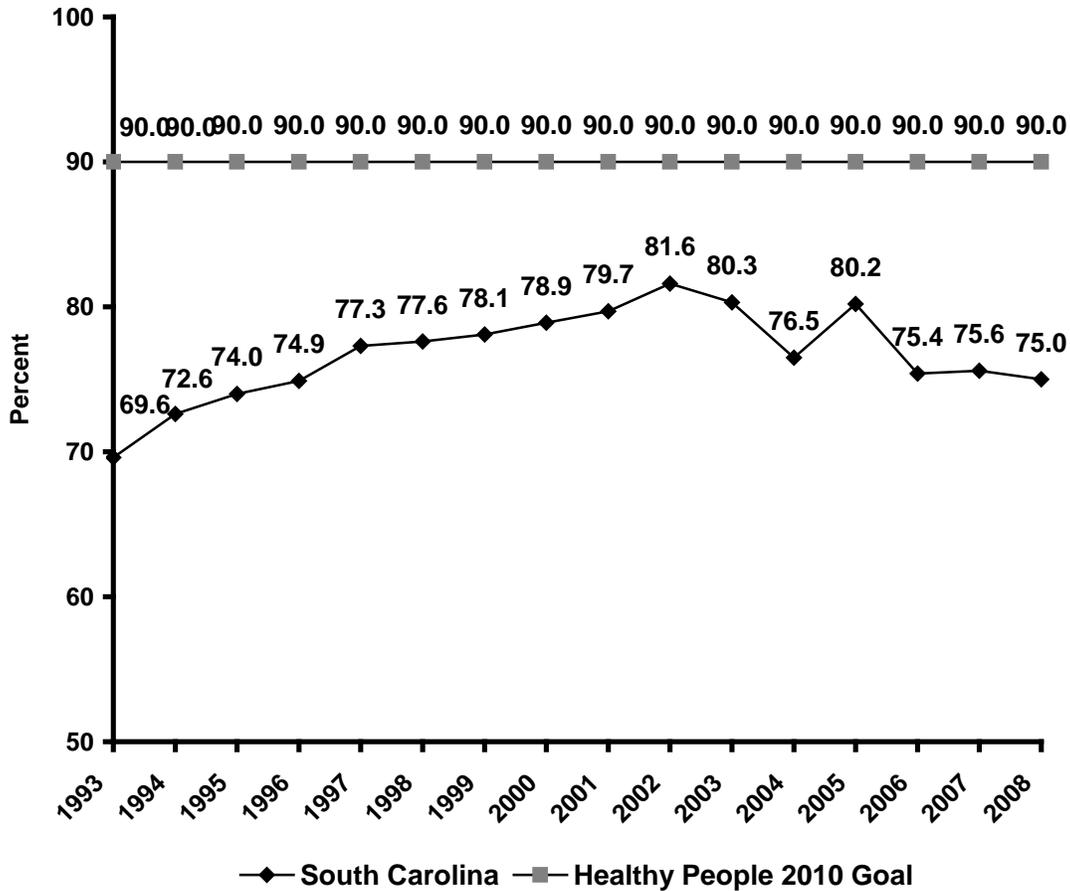
*“I feel that if I had gotten prenatal care earlier I would have known that things were wrong. The hospital said my baby was too small to survive & they let him die because they could not put tubes into him. I questioned why other babies smaller survive and not mine.”*

*“I'm just thankful that someone cares about the experience I had with my beautiful baby boy. And to all mothers out there don't smoke or drink with your unborn child and take a prenatal vitamins that are given to you by the doctor.”*

*“The place I was going to for my prenatal care didn't care & didn't do anything for my high blood pressure which caused me to get preeclampsia, which made me go into labor 2 weeks early...”*

## Prenatal Care

**Proportion of Women Who Entered Prenatal Care  
During the First Trimester\*, 1993-2008**



**\*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 13<sup>th</sup> week in its definition of first trimester. If the 13<sup>th</sup> week is included, according to PRAMS data, SC is still slightly below the Healthy People 2010 goal (90%). In 2008, 85.8% of SC women received care in the first 13 weeks of pregnancy. More information about the Healthy People 2010 goals is available elsewhere.<sup>1</sup>

The proportion of women entering prenatal care during the first trimester increased from just below 70% in 1993 to a high of 81.6% in 2002, but has decreased to 75.0% by 2008.

## Prenatal Care

### Characteristics of Women Entering Prenatal Care During the First Trimester, 2006-2008

Maternal Characteristic	2006 percent (CI)*	2007 percent (CI)*	2008** percent (CI)*
<b>Race</b>			
Non-Hispanic White	84.0 ( 79.5, 87.7)	83.7 ( 78.9, 87.7)	81.9 ( 76.9, 86.1)
Non-Hispanic Black	68.3 ( 60.7, 75.1)	71.2 ( 63.1, 78.2)	67.6 ( 59.6, 74.8)
Other Race	56.9 ( 44.3, 68.6)	55.3 ( 43.8, 66.2)	60.4 ( 47.8, 71.8)
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	65.7 ( 58.7, 72.1)	63.1 ( 55.5, 70.1)	67.7 ( 60.6, 74.1)
25-34	84.4 ( 79.2, 88.6)	86.2 ( 81.2, 90.0)	82.2 ( 76.7, 86.6)
35-55	81.3 ( 69.4, 89.3)	86.9 ( 77.3, 92.8)	82.3 ( 70.1, 90.2)
<b>Education</b>			
Less than High School	59.6 ( 50.5, 68.1)	53.2 ( 43.7, 62.6)	57.6 ( 48.1, 66.5)
High School	70.4 ( 62.1, 77.6)	63.8 ( 54.6, 72.1)	75.0 ( 66.4, 82.0)
More than High School	85.7 ( 80.9, 89.4)	90.8 ( 86.7, 93.7)	83.6 ( 78.7, 87.6)
<b>Marital Status</b>			
Married	85.1 ( 80.6, 88.7)	85.9 ( 81.8, 89.3)	86.4 ( 81.6, 90.1)
Other	63.3 ( 56.7, 69.5)	61.4 ( 54.2, 68.1)	62.4 ( 55.8, 68.6)
<b>Medicaid Status</b>			
No	87.7 ( 82.6, 91.5)	87.9 ( 83.1, 91.5)	89.3 ( 84.1, 93.0)
Yes	67.3 ( 61.8, 72.3)	65.2 ( 59.2, 70.8)	66.5 ( 60.8, 71.6)
<b>Birthweight</b>			
VLBW (<1500 g)	75.8 ( 73.6, 77.8)	78.6 ( 76.2, 80.8)	73.5 ( 71.1, 75.8)
MLBW (1500-2499 g)	76.0 ( 71.7, 79.9)	73.7 ( 68.3, 78.4)	72.6 ( 67.7, 77.1)
NBW (2500+ g)	75.4 ( 71.1, 79.2)	75.7 ( 71.3, 79.7)	75.2 ( 70.7, 79.2)
<b>TOTAL</b>	75.4 ( 71.5, 79.0)	75.6 ( 71.6, 79.2)	75.0 ( 70.9, 78.7)

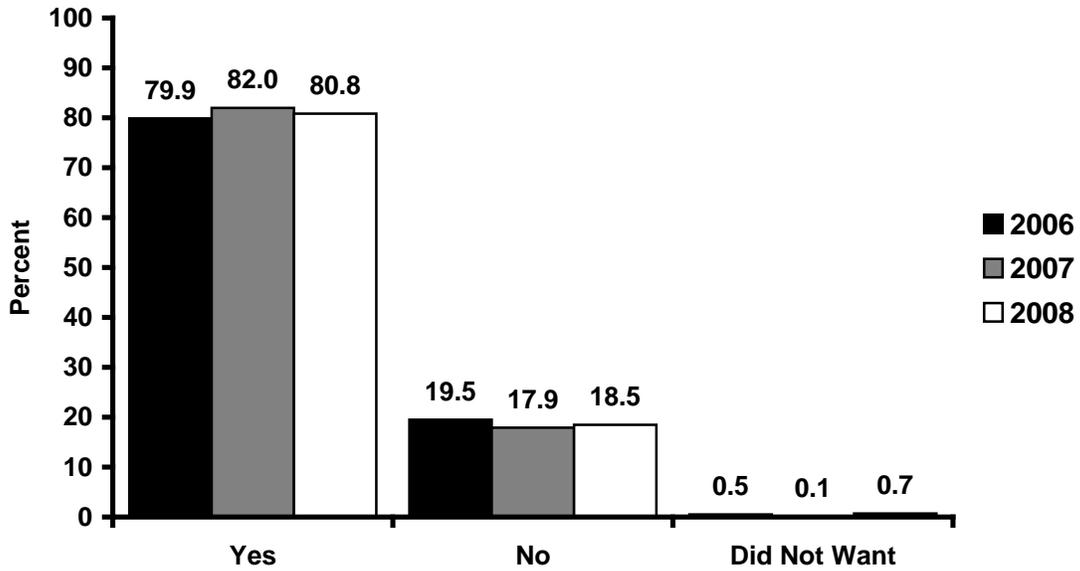
\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

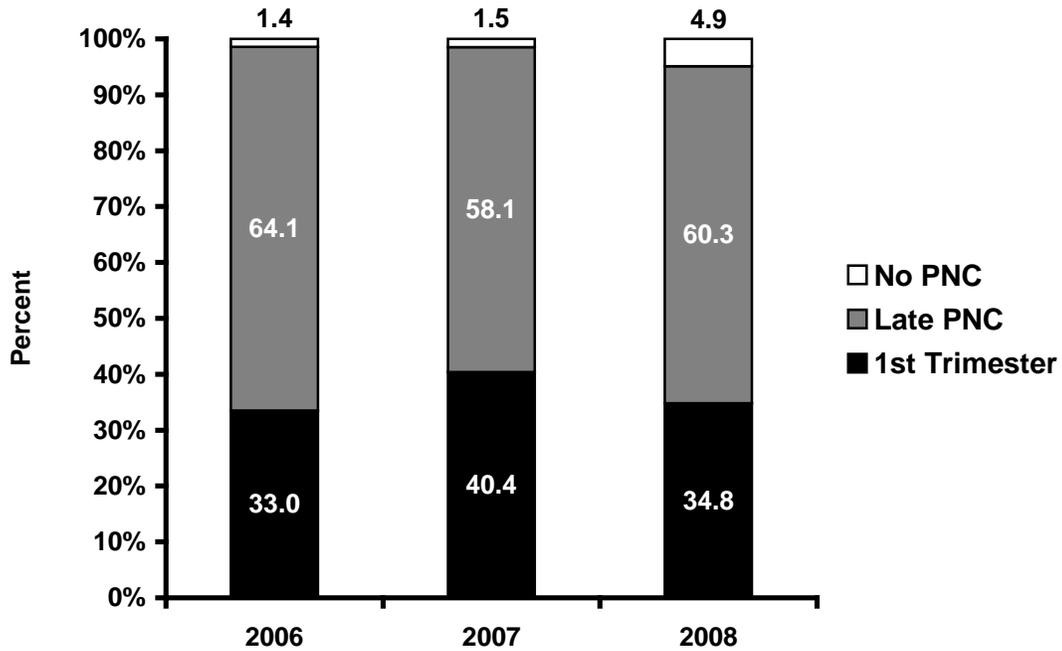
**\*\*Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

## Prenatal Care

**Proportion of Women Who Entered Prenatal Care as Early as Wanted, 2006-2008**



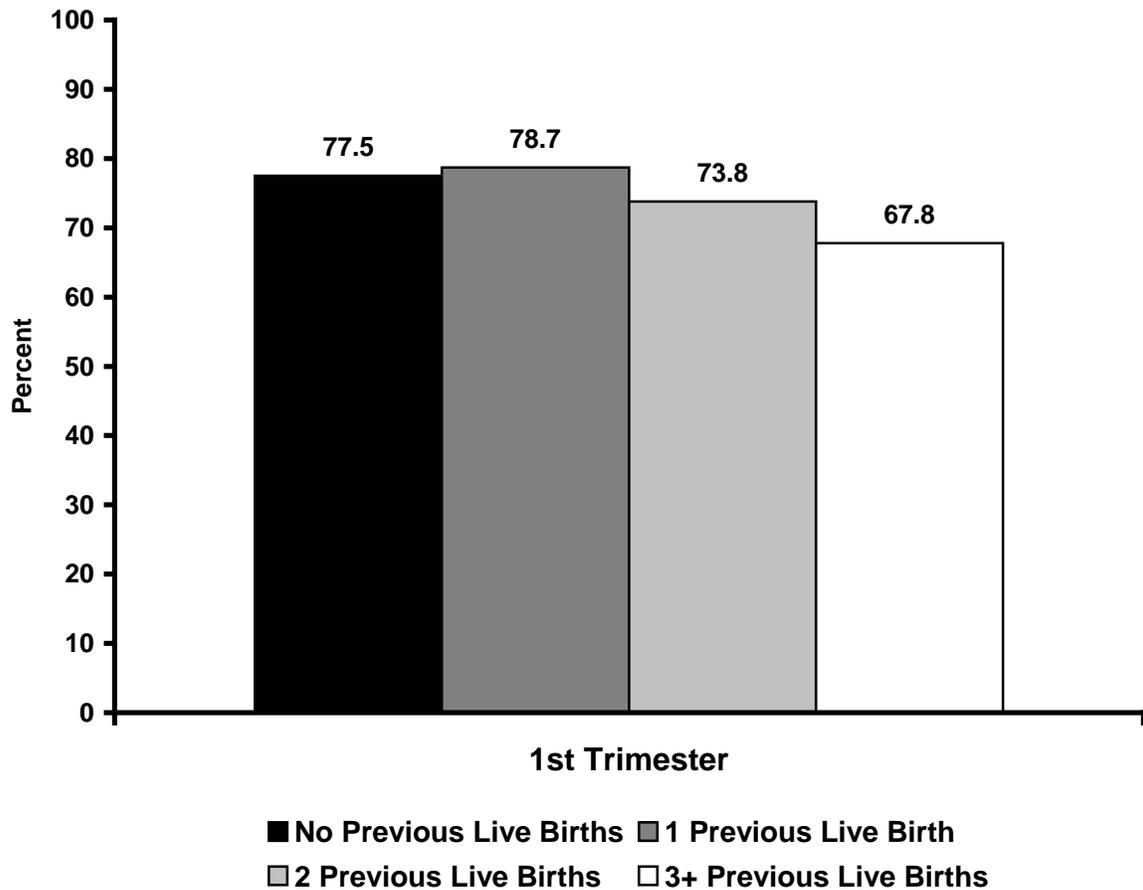
**First Trimester Care for Women Who Did Not Receive Prenatal Care as Early as They Wanted, 2006-2008**



## Prenatal Care

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### Prenatal Care Entry: Differences by Parity, 1993-2008\*



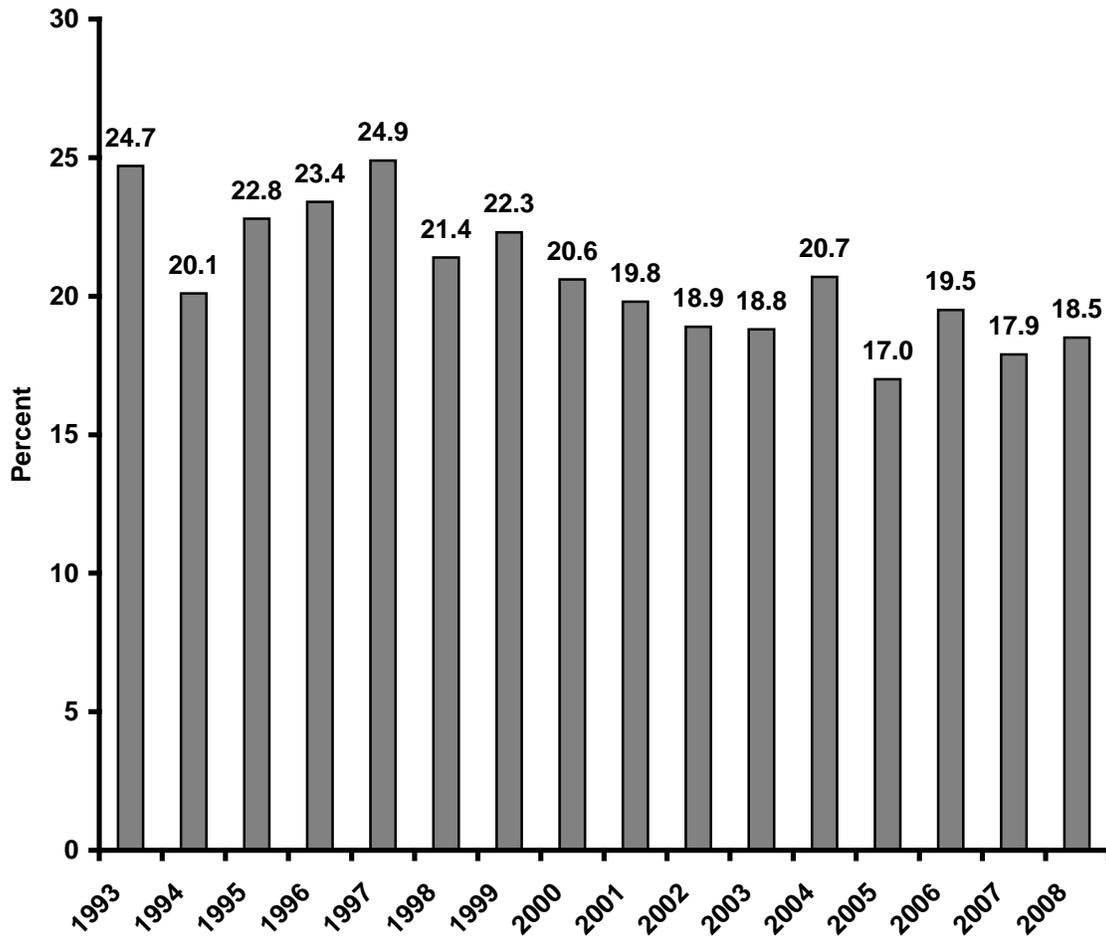
\*Average percentages for 1993-2008

Between the years of 1993-2008, 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

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### Proportion of Women Who Did Not Enter Prenatal Care as Early as They Wanted\*, 1993-2008



\*In 2008, 18.5% of women said they did not receive prenatal care as early in their pregnancy as wanted. However, 34.8% of those women actually entered care during the first trimester.

Between the years of 1993-2008 an average of 20.7% 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, 2006-2008

Maternal Characteristic	2006 percent (CI)*	2007 percent (CI)*	2008** percent (CI)*
<b>Race</b>			
Non-Hispanic White	15.5 ( 11.9, 19.9)	18.1 ( 14.1, 22.9)	18.1 ( 14.0, 23.1)
Non-Hispanic Black	25.5 ( 19.3, 32.8)	17.6 ( 12.2, 24.8)	19.7 ( 14.1, 26.8)
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	27.7 ( 21.8, 34.4)	26.4 ( 20.3, 33.4)	23.4 ( 17.8, 30.1)
25-34	14.0 ( 10.1, 19.0)	10.1 ( 7.0, 14.3)	13.9 ( 10.1, 18.7)
35-55	----^	----^	----^
<b>Education</b>			
Less than High School	27.0 ( 19.8, 35.6)	25.0 ( 17.6, 34.1)	28.2 ( 20.6, 37.4)
High School	23.7 ( 17.3, 31.6)	31.8 ( 23.9, 41.0)	18.3 ( 12.4, 26.3)
More than High School	13.6 ( 10.1, 18.1)	9.0 ( 6.4, 12.5)	13.7 ( 10.2, 18.2)
<b>Marital Status</b>			
Married	11.1 ( 8.1, 15.1)	13.6 ( 10.4, 17.7)	11.6 ( 8.3, 15.9)
Other	30.3 ( 24.6, 36.7)	24.0 ( 18.4, 30.6)	26.2 ( 20.8, 32.4)
<b>Medicaid Status</b>			
No	10.3 ( 7.0, 14.8)	12.8 ( 9.3, 17.5)	11.0 ( 7.4, 16.1)
Yes	25.6 ( 21.0, 30.7)	22.2 ( 17.6, 27.6)	22.9 ( 18.5, 28.0)
<b>Birthweight</b>			
VLBW (<1500 g)	26.0 ( 24.0, 28.2)	25.0 ( 22.7, 27.4)	28.1 ( 25.8, 30.5)
MLBW (1500-2499 g)	23.1 ( 19.4, 27.4)	21.7 ( 17.4, 26.7)	23.6 ( 19.5, 28.3)
NBW (2500+ g)	19.1 ( 15.7, 23.1)	17.5 ( 14.1, 21.4)	17.9 ( 14.4, 22.0)
<b>TOTAL</b>	19.5 ( 16.4, 23.1)	17.9 ( 14.9, 21.5)	18.5 ( 15.3, 22.2)

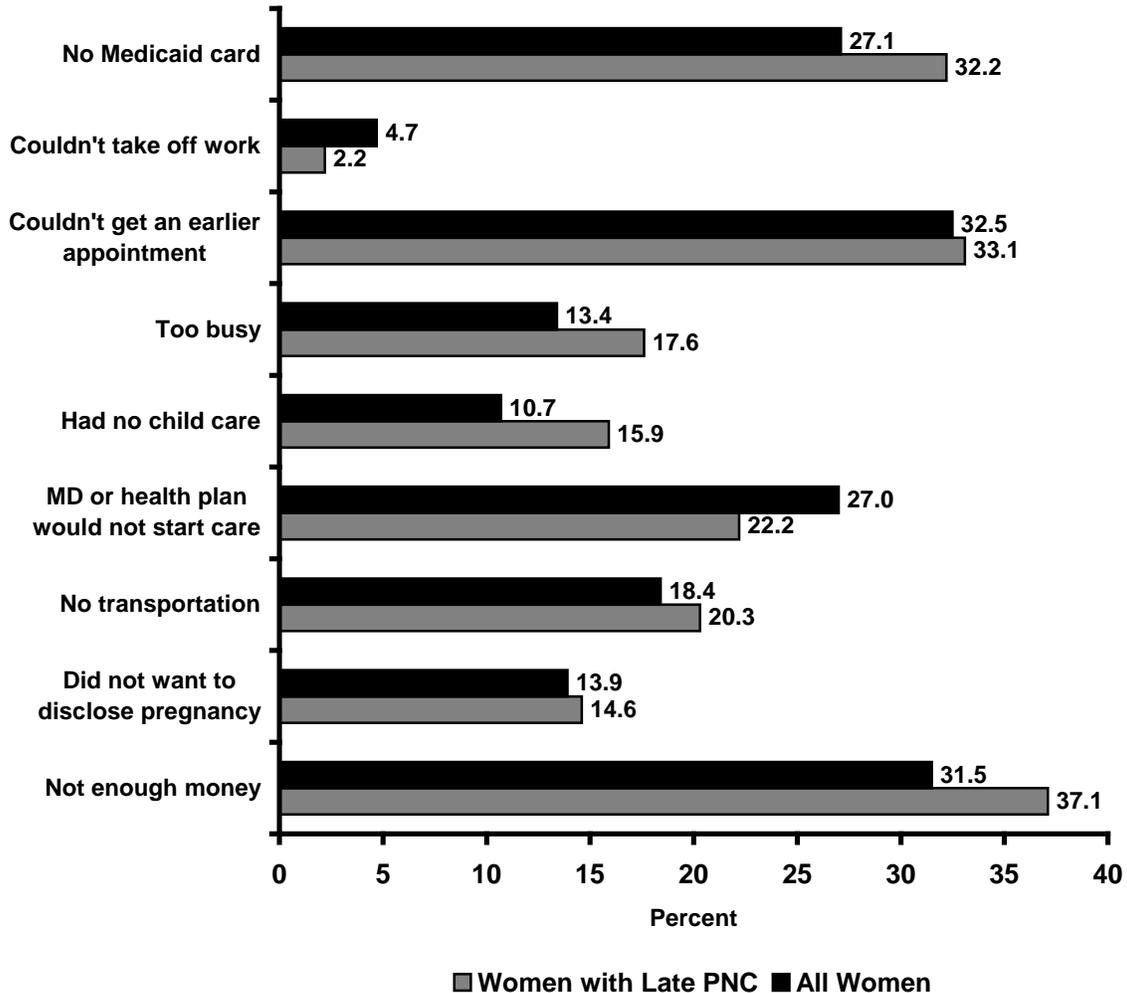
\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

\*\*Note: In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

## Prenatal Care

### Barriers to Entering Prenatal Care as Early as Wanted\*, 2008



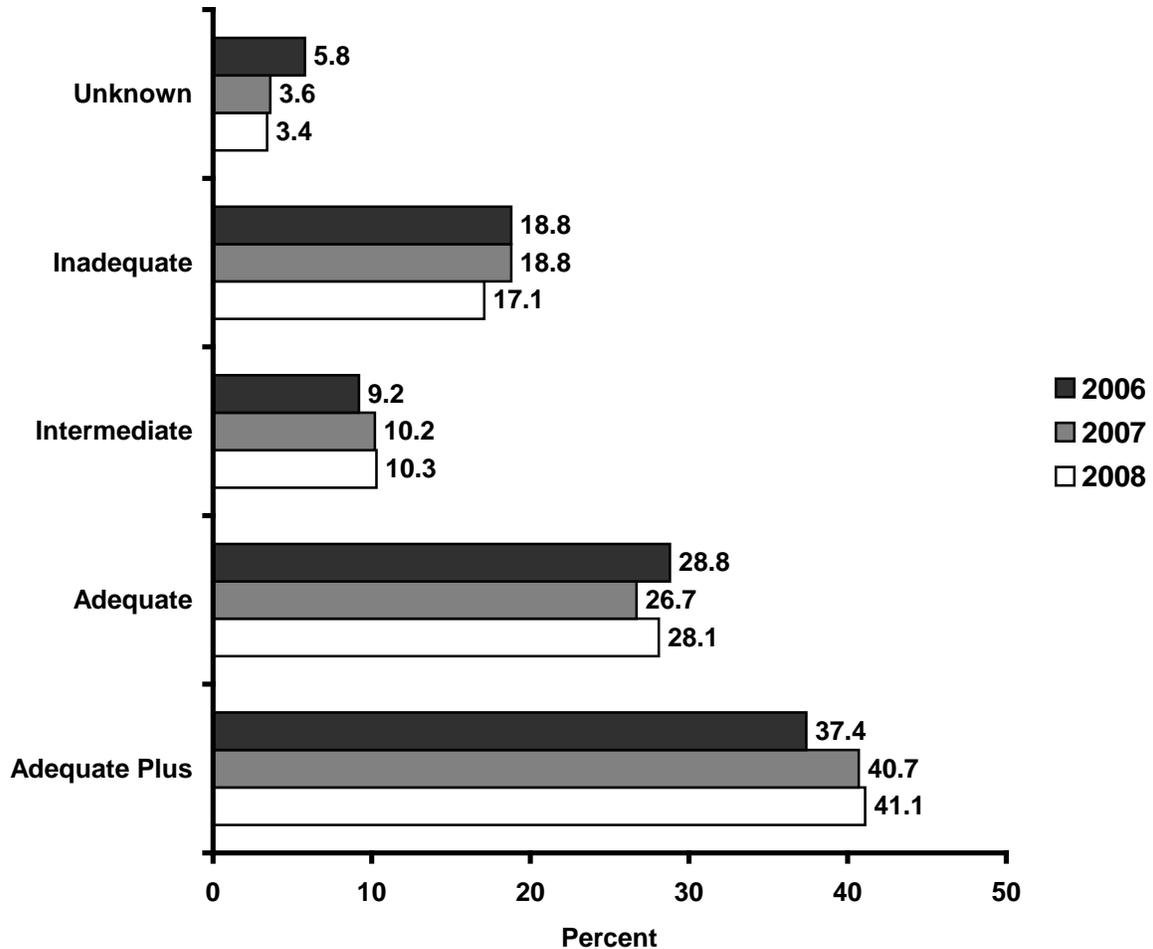
\*Note: This chart represents women who stated that they did not enter prenatal care as early as they wanted, which is 18.5% of the sample for 2008. Some women reported that they did not get care as early as they wanted, but still managed to receive care before the end of the first trimester. Women who did not receive care as early as they wanted and also ended up receiving late prenatal care or no prenatal care represent just 12.3% of the total sample for 2008.

Top three barriers to all women receiving prenatal care as early as wanted in 2008 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 25.8% in 2008.

## Prenatal Care

### Adequacy of Prenatal Care by Adequacy of Prenatal Care Utilization (APNCU) Index Standards\*, 2006-2008



\*The APNCU 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. More details about the APNCU are available elsewhere.<sup>2</sup>

Slightly over 17% of women received inadequate prenatal care in 2008.

Women that received inadequate prenatal care were more likely to:

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

## Prenatal Care

### Distribution of APNCU Index Adequacy of Prenatal Care Index by Maternal Characteristics, 2008\*\*

Maternal Characteristics	Adequate Plus percent (CI)*	Adequate percent (CI)*	Intermediate percent (CI)*	Inadequate percent (CI)*
<b>Race</b>				
Non-Hispanic Black	43.5 (36.0, 51.3)	22.3 (16.3, 29.7)	----^	21.0 (15.1, 28.5)
Non-Hispanic White	45.4 (39.8, 51.1)	31.4 (26.4, 36.9)	----^	13.0 ( 9.4, 17.8)
Other Race	28.6 (18.9, 40.8)	----^	----^	----^
<b>Age</b>				
Less than 18	----^	----^	----^	----^
18-24	37.4 (30.9, 44.4)	25.7 (20.0, 32.4)	----^	26.1 (20.0, 33.2)
25-34	46.1 (40.0, 52.3)	30.1 (24.7, 36.0)	----^	13.5 ( 9.6, 18.7)
35-55	47.9 (35.5, 60.5)	----^	----^	----^
<b>Education</b>				
Less than High School	32.0 (24.2, 40.9)	29.5 (21.7, 38.7)	----^	32.4 (24.0, 42.0)
High School	50.9 (42.1, 59.7)	22.2 (15.6, 30.4)	----^	17.4 (11.3, 25.8)
More than High School	42.9 (37.4, 48.6)	32.9 (27.7, 38.6)	13.5 ( 9.9, 18.1)	10.7 ( 7.5, 14.9)
<b>Marital status</b>				
Married	45.4 (39.8, 51.1)	31.3 (26.3, 36.8)	----^	13.1 ( 9.4, 18.0)
Other	39.5 (33.4, 46.0)	26.9 (21.4, 33.2)	----^	22.9 (17.7, 29.2)
<b>Medicaid status</b>				
No	43.7 (37.4, 50.3)	34.3 (28.4, 40.9)	----^	----^
Yes	41.8 (36.4, 47.4)	26.0 (21.3, 31.3)	10.4 ( 7.4, 14.4)	21.8 (17.3, 27.1)
<b>Birthweight</b>				
VLBW (<1500 g)	65.1 (62.4, 67.6)	----^	----^	21.6 (19.5, 24.0)
MLBW (1500-2499 g)	60.9 (55.8, 65.9)	15.7 (12.3, 19.8)	----^	16.1 (12.5, 20.4)
NBW (2500+ g)	40.7 (36.2, 45.4)	30.5 (26.4, 35.0)	11.0 ( 8.4, 14.3)	17.8 (14.2, 22.0)
<b>TOTAL</b>	42.5 (38.4, 46.8)	29.2 (25.4, 33.2)	10.6 ( 8.2, 13.6)	17.7 (14.4, 21.5)

\*95% Confidence Interval

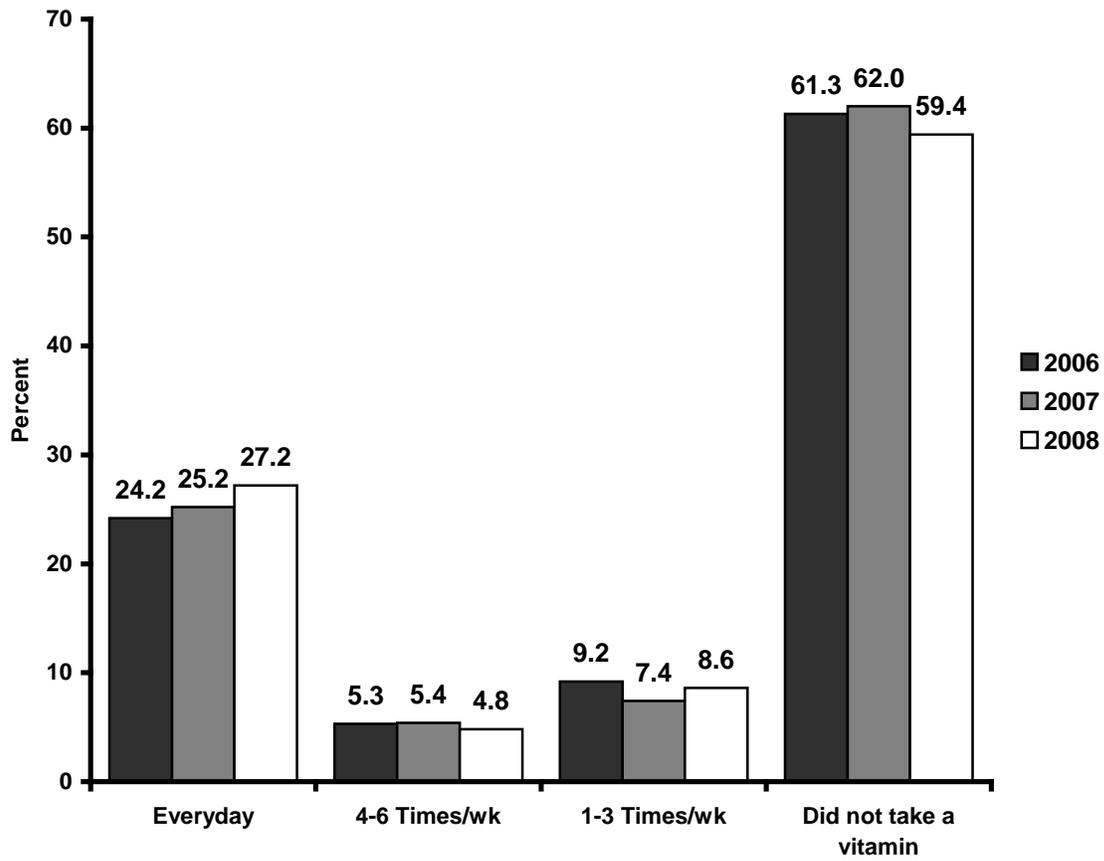
^Cell contains less than 50 respondents; data not shown

**\*\*Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

## Prenatal Care

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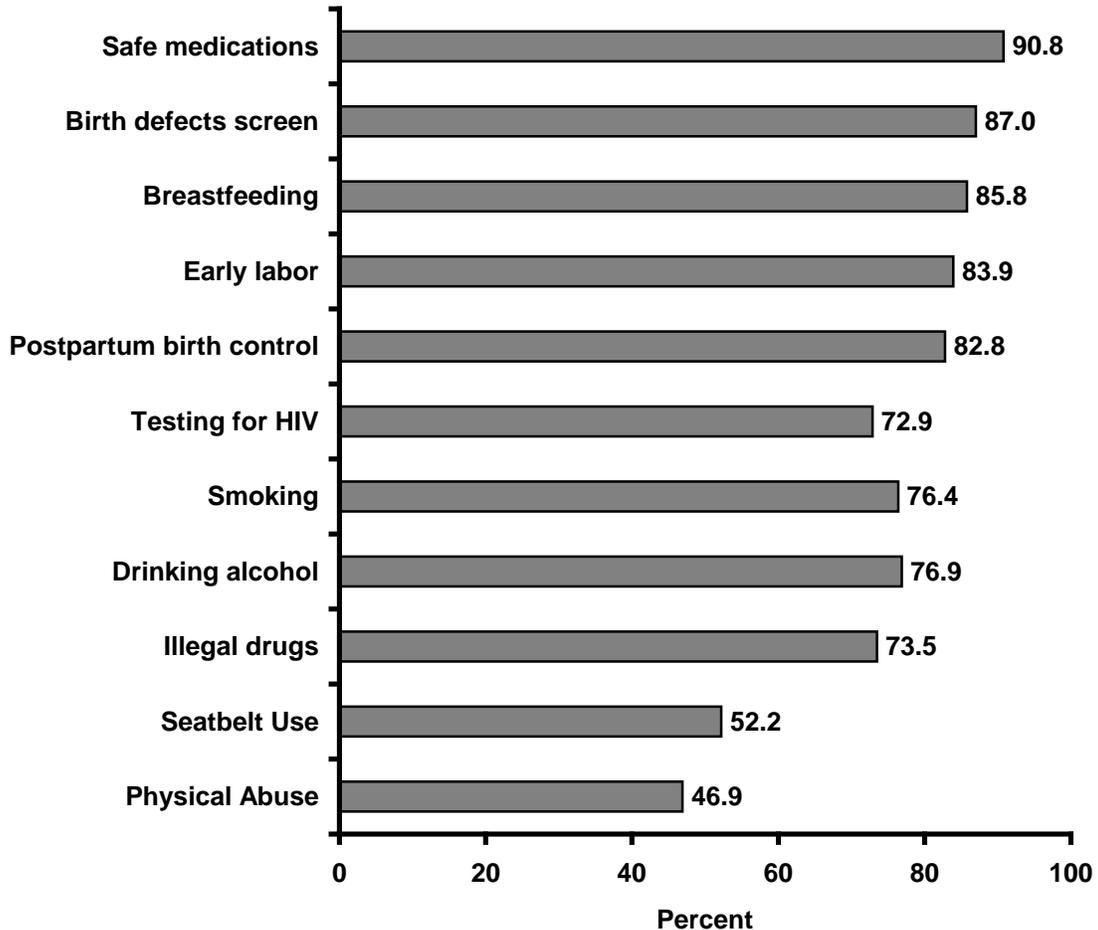
### Multivitamin Use Prior to Becoming Pregnant, 2006-2008



## Prenatal Care

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### Percent of Women Receiving Information on Important Topics During Prenatal Care Visits, 2008



The top four topics women received information on during prenatal care visits in 2008:  
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 2008, 46.9% of women received information on physical abuse, and 52.2% of the women received information from their health care provider about using a seatbelt during pregnancy.

## **Family Planning Fact Sheet**

From 1993-2008:

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 reached a low of 9.8% in 2007, but increased to 11.1 in 2008.

The percentage of women NOT using a contraceptive method postpartum decreased from 16.5% in 1999 to 11.8% in 2008.

In 2008:

Among women who experienced unintended pregnancies,  
50.4% of women were not using contraception at time of conception;  
49.6% reported that their contraceptive method failed.

Women that experienced unintended pregnancies were more likely to:  
be non-Hispanic black  
be less than 24 years of age  
be unmarried  
be on Medicaid and  
have a high school level of education or less.

From 2006 to 2008, there was a slight decrease in the percentage of women entering prenatal care during the first trimester among women with intended pregnancies and an increase in the percentage entering prenatal care in the first trimester 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 (48.3% in 2008), and 40% of all pregnancies in black women (68.3% in 2008).

## **Family Planning - Pregnancy Intention**

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

*“I was on and off on birth control for 2 years and I thought I couldn’t get pregnant.”*

*“I did not use birth control b/c of the or some side effects.”*

*“We were offered birth control but we are Catholics and do not use birth control.”*

*“I'm a teenager and all mothers my age should really think about using birth control to prevent from having a child at an early age.”*

*“I am a teen mother. I was using condoms at the time. There are a lot of programs for pregnancy. I am thankful for that but it need to be more in schools teachers just don't understand.”*

*“Thinking about having another baby, so not actively trying but not taking or using birth control.”*

*“I miscarried during my first pregnancy, about 4 months after I stopped taking [brand name omitted] as birth control. After my first period having a D& C, I became pregnant again with my new baby, and had no complications with this pregnancy.”*

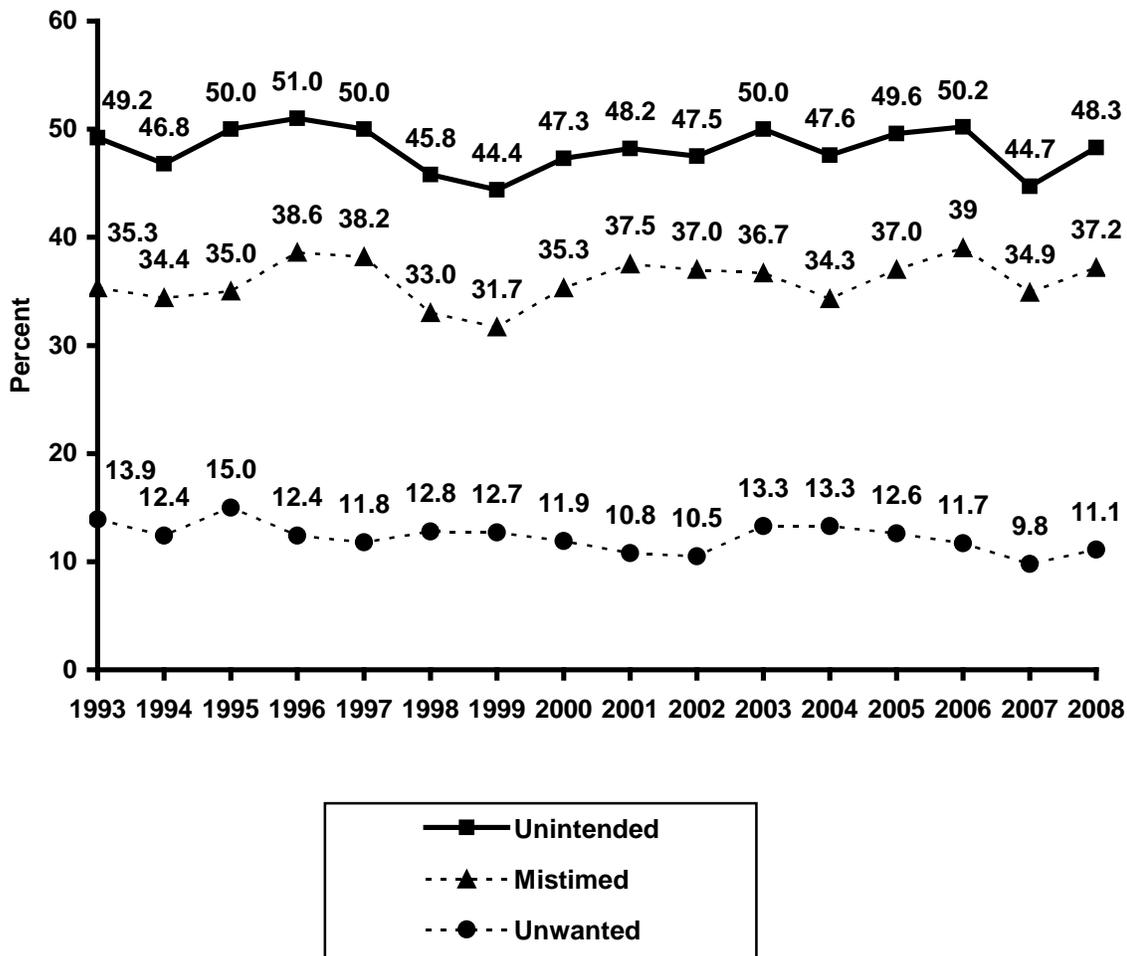
*“I do not feel it is my place to control a life, my husband and I felt if God wants to bring a life in the world , through us he will, in his timing. We have been active for several years without conceiving.”*

*“I had my tubes tied because I already have 7 children and 2 grandchildren.”*

*“We used condoms but not all the time, pills had side effects.”*

## Family Planning - Pregnancy Intention

Percent of Unintended Pregnancies\*, 1993-2008



\*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 decreased from 13.3% to 11.1% in 2008.

## Family Planning - Pregnancy Intention

### Unintended Pregnancies by Maternal Characteristics, 2006-2008

Maternal Characteristic	2006 percent (CI)*	2007 percent (CI)*	2008** percent (CI)*
<b>Race</b>			
Non-Hispanic White	44.3 ( 39.1, 49.7)	36.2 ( 30.9, 41.8)	39.3 ( 33.9, 45.0)
Non-Hispanic Black	63.7 ( 56.2, 70.5)	60.9 ( 52.7, 68.5)	68.3 ( 60.7, 75.0)
Other Race	41.5 ( 30.2, 53.9)	41.4 ( 30.6, 53.0)	----^
<b>Age</b>			
Less than 18	87.1 ( 68.3, 95.5)	----^	----^
18-24	63.6 ( 56.8, 69.9)	59.2 ( 51.8, 66.2)	58.9 ( 51.8, 65.7)
25-34	39.8 ( 34.1, 45.9)	35.6 ( 30.0, 41.6)	36.6 ( 30.8, 42.8)
35-55	30.2 ( 20.3, 42.4)	24.9 ( 16.4, 36.0)	44.8 ( 32.5, 57.8)
<b>Education</b>			
Less than High School	60.9 ( 52.1, 69.1)	58.7 ( 49.2, 67.6)	53.2 ( 43.9, 62.2)
High School	55.1 ( 46.9, 63.1)	50.4 ( 41.3, 59.4)	55.5 ( 46.7, 63.9)
More than High School	42.0 ( 36.5, 47.7)	36.2 ( 31.0, 41.8)	41.7 ( 36.1, 47.5)
<b>Marital Status</b>			
Married	33.6 ( 28.6, 39.0)	28.7 ( 24.2, 33.6)	32.2 ( 27.1, 37.8)
Other	70.7 ( 64.5, 76.2)	67.2 ( 60.2, 73.4)	65.9 ( 59.5, 71.8)
<b>Medicaid Status</b>			
No	27.8 ( 22.5, 33.8)	25.7 ( 20.8, 31.3)	29.2 ( 23.5, 35.6)
Yes	64.4 ( 59.1, 69.4)	60.9 ( 54.9, 66.5)	59.7 ( 54.1, 65.0)
<b>Prenatal Care^^</b>			
Inadequate	63.1 (52.9, 72.2)	52.9 (42.9, 62.6)	64.5 (53.1, 74.5)
Intermediate	----^	----^	----^
Adequate	40.1 (33.0, 47.7)	36.5 (28.8, 49.9)	41.6 (33.9, 49.8)
Adequate Plus	52.5 (46.0, 58.8)	45.7 (39.3, 52.3)	44.6 (38.3, 51.1)
<b>Birthweight</b>			
VLBW (<1500 g)	55.0 ( 52.7, 57.4)	52.3 ( 49.6, 54.9)	50.4 ( 47.8, 53.0)
MLBW (1500-2499 g)	55.1 ( 50.5, 59.7)	56.1 ( 50.2, 61.8)	55.4 ( 50.3, 60.3)
NBW (2500+ g)	49.7 ( 45.2, 54.2)	43.7 ( 39.1, 48.4)	47.7 ( 43.0, 52.4)
<b>TOTAL</b>	50.2 ( 46.1, 54.3)	44.7 ( 40.5, 49.0)	48.3 ( 44.0, 52.6)

\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

^^Prenatal Care as measured by the Adequacy of Prenatal Care Utilization (APNCU) Index.

\*\*Note: In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

## Family Planning - Pregnancy Intention

### Contraceptive Behavior Among Women With Unintended Pregnancies, 2008

Maternal Characteristic	Non-use** Percent (CI)*	Failed Use** Percent (CI)*
<b>Race</b>		
Non-Hispanic White	47.8 (38.6, 57.3)	52.2 (42.7, 61.4)
Non-Hispanic Black	53.0 (42.8, 62.9)	47.0 (37.1, 57.2)
Other Race	----^	----^
<b>Age</b>		
Less than 18	----^	----^
18-24	52.3 (42.9, 61.6)	47.7 (38.4, 57.1)
25-34	49.3 (38.6, 60.2)	50.7 (39.8, 61.4)
35-55	----^	----^
<b>Education</b>		
Less than High School	51.4 (38.2, 64.4)	48.6 (35.6, 61.8)
High School	53.0 (41.0, 64.6)	47.0 (35.4, 59.0)
More than High School	48.3 (38.9, 57.9)	51.7 (42.1, 61.1)
<b>Marital status</b>		
Married	47.4 (36.9, 58.1)	52.6 (41.9, 63.1)
Other	51.6 (43.3, 59.8)	48.4 (40.2, 56.7)
<b>Medicaid status</b>		
No	48.8 (35.8, 61.9)	51.2 (38.1, 64.2)
Yes	50.8 (43.3, 58.3)	49.2 (41.7, 56.7)
<b>TOTAL</b>	50.4 (43.8, 56.9)	49.6 (43.1, 56.2)

\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

\*\*Definitions:

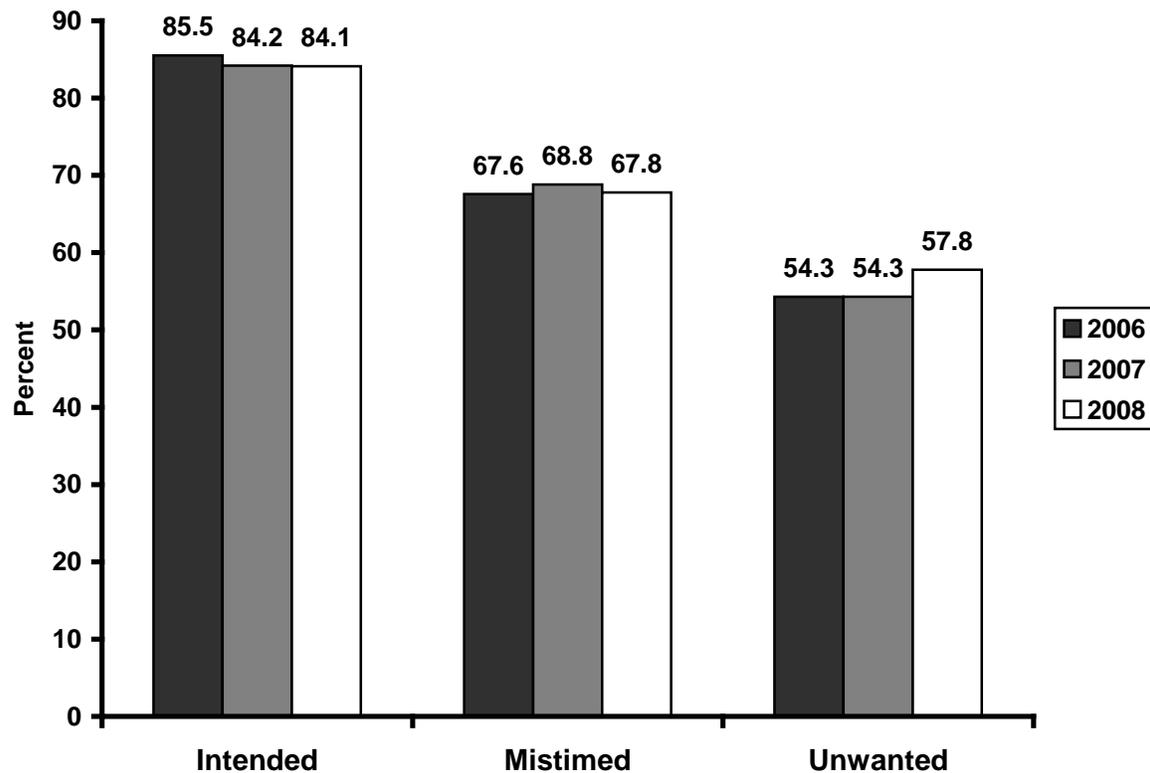
Failed Use: Woman was using contraception when she got pregnant.

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

## Family Planning - Pregnancy Intention

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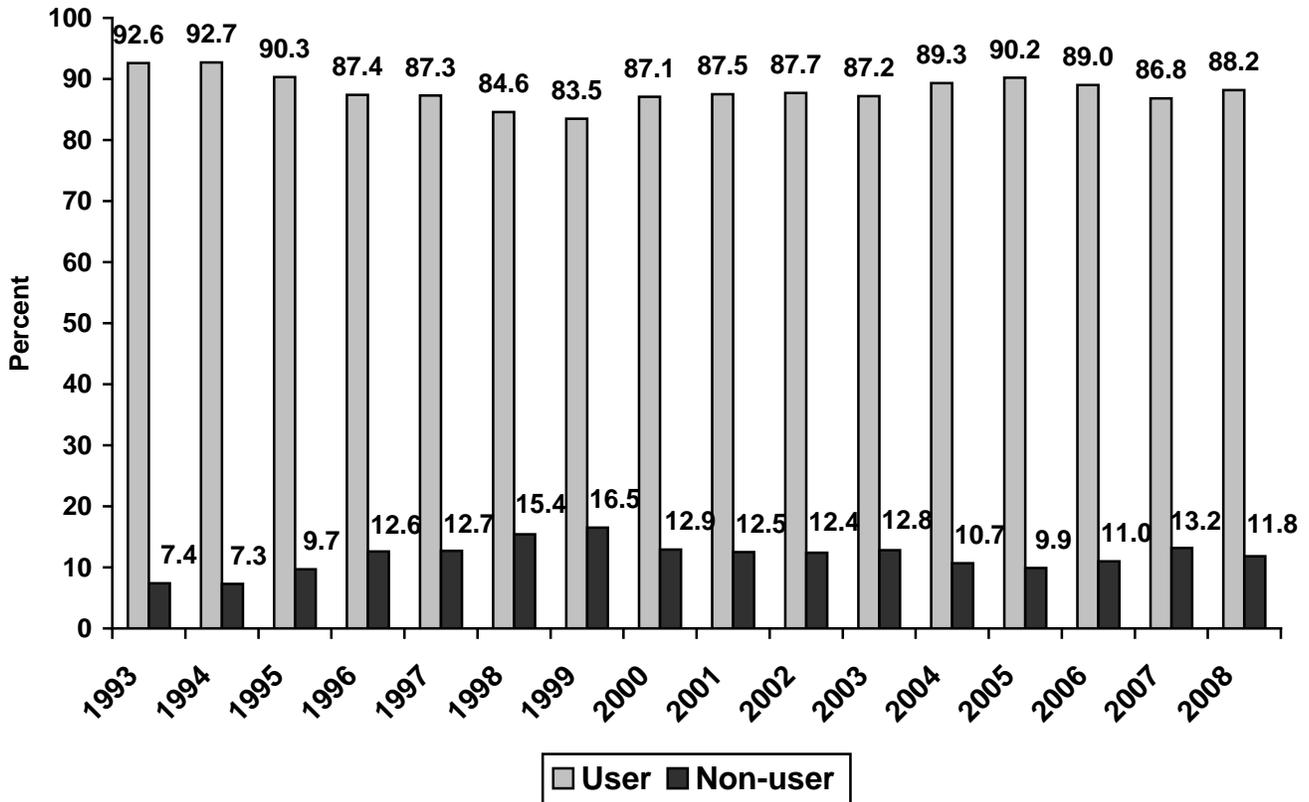
**Percentage of Women Who Entered Prenatal Care in the First Trimester  
(weeks 1-12) by Pregnancy Intention: 2006-2008**



From 2006 to 2008, 84.1% to 85.5% of women who wanted their pregnancies to occur then or sooner received prenatal care during the first trimester of pregnancy.

## Family Planning - Postpartum Contraception

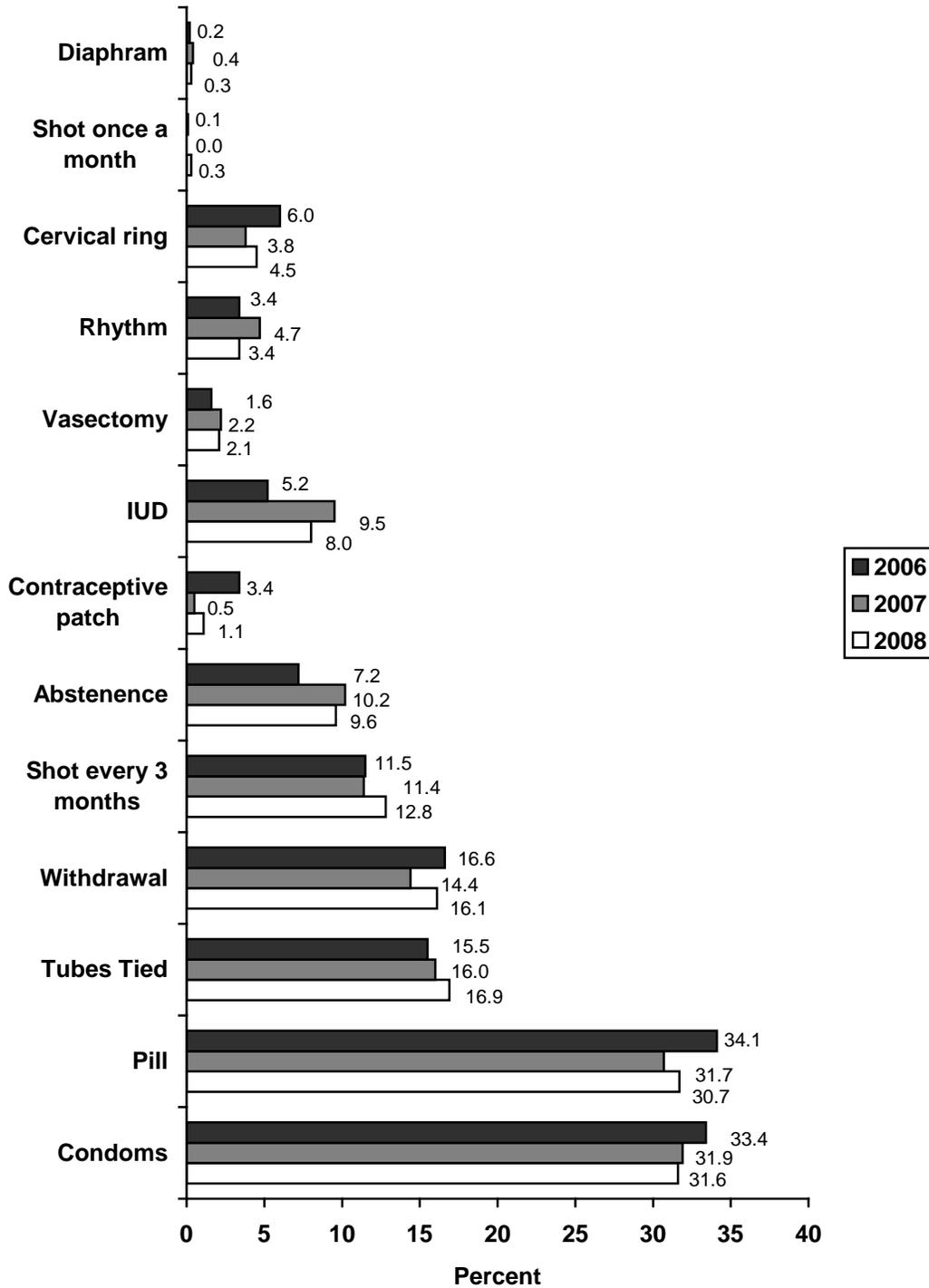
### Postpartum Birth Control, 1993-2008



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 11.8% in 2008.

# Family Planning - Postpartum Contraception

## Postpartum Birth Control Methods\*, 2006-2008



\*Contraceptive methods are not mutually exclusive.

## Smoking Fact Sheet

From 1993-2008:

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 returned to 15.9% in 2008.

The percentage of women who quit smoking during pregnancy decreased from 54.0% in 1999 to 39.8% in 2008.

The percentage of women who quit smoking during pregnancy and remained nonsmokers after delivery has fallen from a high of 29.2% in 2006 to 16.2% in 2008.

From 2006-2008, the percentage of women who smoked during the last trimester has increased from 12.1% to 15.9%. This includes increases among mothers who were 18-34 years of age, mothers that had a high school education or less and mothers that were on Medicaid.

In 2008, women who reported smoking during the last trimester of pregnancy were more likely to:

- be non-Hispanic white
- be unmarried and
- have less than a high school education.

We have not yet reached the Healthy People 2010 goal to increase abstinence from tobacco by pregnant women to 99%. In 2008, just over 84% of mothers abstained from smoking during pregnancy.

### What Some South Carolina Mothers Have to Say about Smoking:

*“DON'T SMOKE OR DRINK & I HAD A LOW BIRTH BABY--MOTHER'S REALLY NEED TO TAKE CARE OF THEIR BODIES--DON'T DO DRUGS OR SMOKE”*

*“During my pregnancy with my twins I ate healthy, quit smoking completely and had half a glass of champagne through my entire pregnancy. My babies were 10 weeks early but they were extremely healthy for there age. There weights were 3lbs 11ozs & 4lbs 3ozs. I feel that my maintenance of my health had a lot to do with that.”*

*“Do not allow smoke around your baby in the house or in the car. Second hand smoke can cause allergies, ear infections and breathing problems.”*

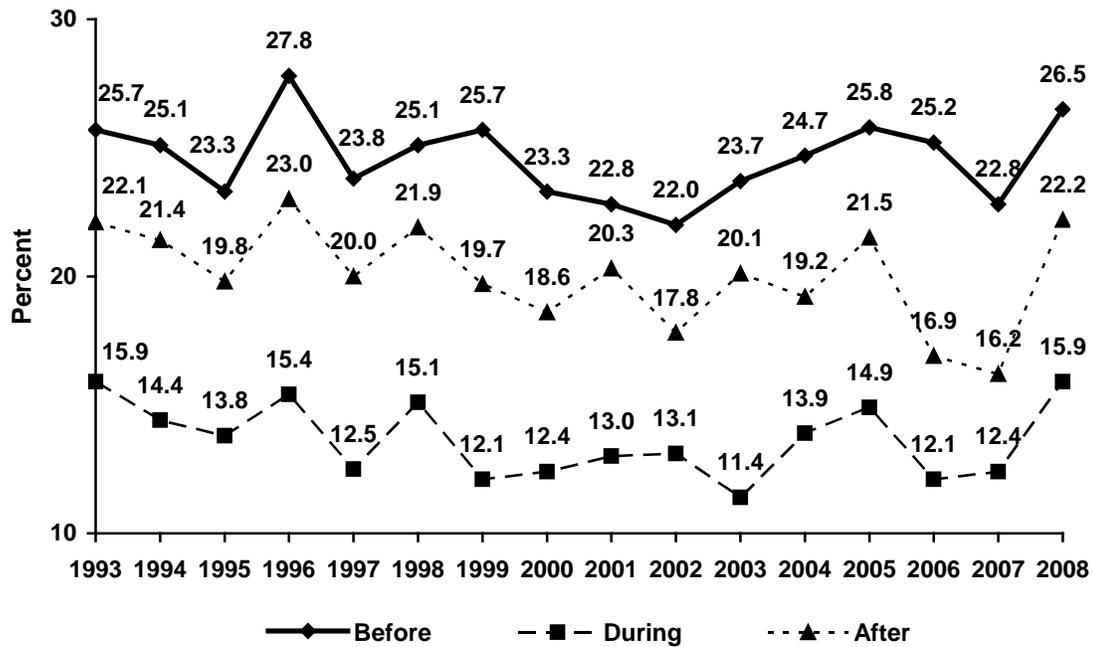
*“Before I went into preterm labor, I was arguing with their father & it was very stressful at home with my mom. This caused me to smoke more. I was also working up until the day before I went into the hospital. I think these factors contributed to my preterm labor.”*

*“I have never smoked a day in my life however, during my pregnancy I noticed so many women smoking while pregnant. This disturbed me because damage is being done to an unborn child. I believe that it would be beneficial to enroll smoking pregnant mothers into a quit smoking class or give them treatment to help them kick the habit.”*

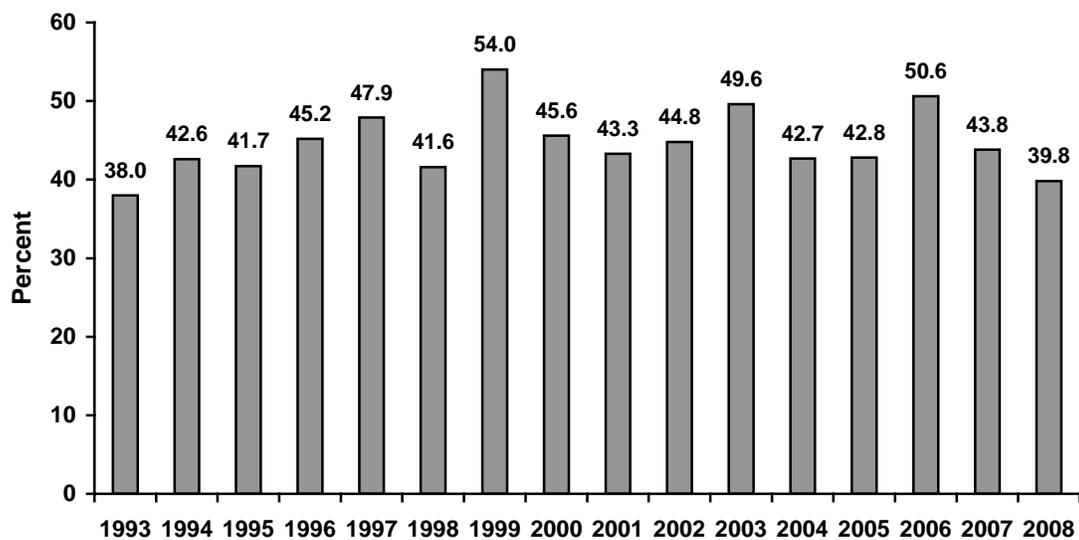
*“Before I got pregnant I smoked and drank. I think that mothers should stop smoking and drinking before their pregnancy to prevent problems and definitely when you are pregnant you should stop doing these things. You should stop doing these things.”*

## Cigarette Use

**Proportion of Women Who Reported Smoking Cigarettes 3 Months Before Pregnancy, During the Last Trimester, and During the 3-6 Months After Delivery, 1993-2008**



**Proportion of Smokers Who Quit Smoking While Pregnant, 1993-2008**



## Cigarette Use

### Characteristics of Women Who Reported Smoking Cigarettes During the Three Months Before Pregnancy, 2006-2008

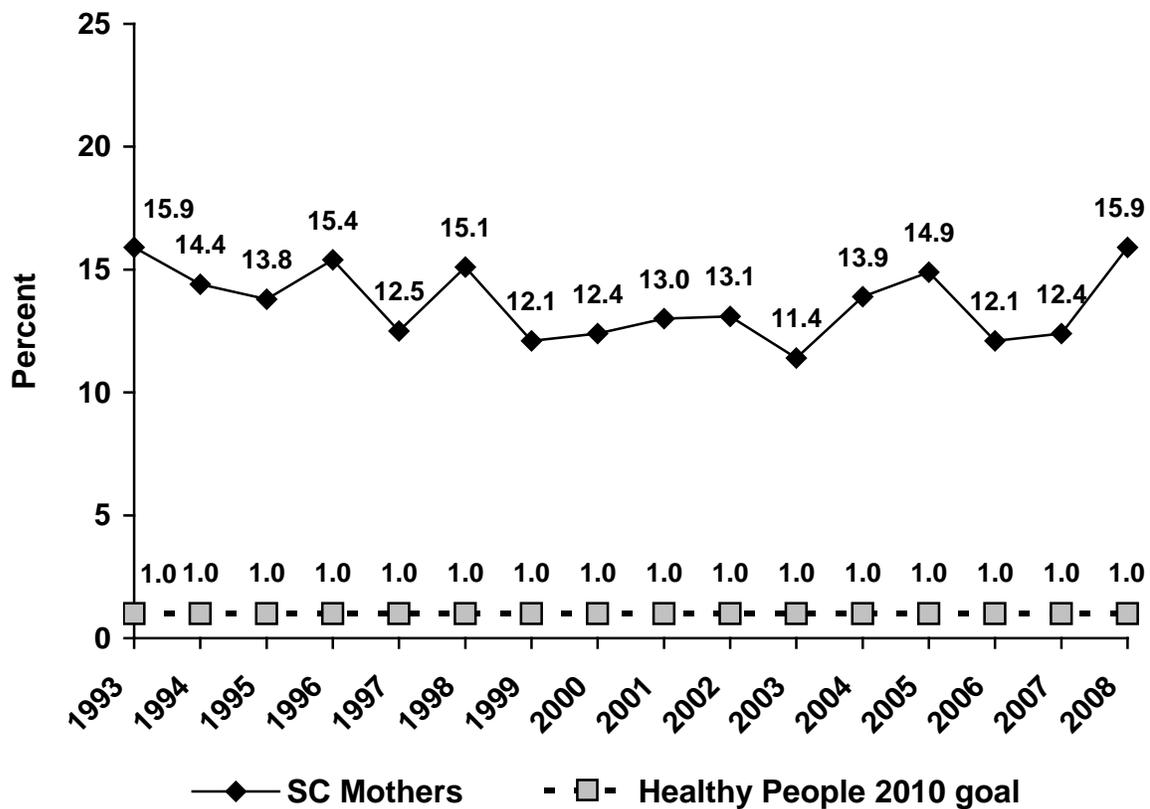
Maternal Characteristic	2006 percent (CI)*	2007 percent (CI)*	2008** percent (CI)*
<b>Race</b>			
Non-Hispanic White	36.0 ( 31.0, 41.2)	30.9 ( 26.0, 36.3)	37.9 ( 32.5, 43.6)
Non-Hispanic Black	14.8 ( 10.1, 21.0)	15.6 ( 10.5, 22.6)	11.8 ( 7.6, 17.9)
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	26.2 ( 20.8, 32.6)	30.7 ( 24.3, 37.9)	32.0 ( 25.8, 39.0)
25-34	27.0 ( 22.0, 32.6)	19.5 ( 15.2, 24.6)	25.2 ( 20.2, 31.0)
35-55	----^	----^	----^
<b>Education</b>			
Less than High School	29.1 ( 21.9, 37.6)	35.3 ( 26.7, 44.9)	34.6 ( 26.3, 43.9)
High School	26.8 ( 20.4, 34.4)	24.9 ( 18.1, 33.2)	32.8 ( 25.0, 41.6)
More than High School	22.4 ( 18.0, 27.5)	16.8 ( 13.0, 21.4)	19.2 ( 15.0, 24.1)
<b>Marital Status</b>			
Married	18.9 ( 15.1, 23.4)	19.2 ( 15.4, 23.7)	22.8 ( 18.4, 28.0)
Other	32.6 ( 26.9, 38.9)	27.7 ( 21.9, 34.5)	30.9 ( 25.1, 37.3)
<b>Medicaid Status</b>			
No	18.1 ( 13.7, 23.4)	15.5 ( 11.5, 20.5)	18.4 ( 13.9, 24.1)
Yes	29.7 ( 25.1, 34.9)	28.9 ( 23.8, 34.6)	31.3 ( 26.3, 36.8)
<b>Birthweight</b>			
VLBW (<1500 g)	22.9 ( 21.0, 25.0)	24.7 ( 22.5, 27.1)	25.1 ( 23.0, 27.4)
MLBW (1500-2499 g)	31.8 ( 27.6, 36.2)	30.3 ( 24.1, 37.3)	26.8 ( 22.6, 31.5)
NBW (2500+ g)	24.7 ( 21.0, 28.8)	22.1 ( 18.5, 26.3)	26.5 ( 22.5, 30.9)
<b>TOTAL</b>	25.2 ( 21.8, 28.9)	22.8 ( 19.4, 26.6)	26.5 ( 22.8, 30.5)

\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

**\*\*Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in biased estimates and should be interpreted with caution.

**Proportion of Mothers Who Reported Smoking Cigarettes During the Last Trimester of Pregnancy, 1993-2008**



The proportion of women who smoked during the last trimester has increased from 11.4% in 2003 to 15.9% in 2008.

In 2008, women who reported smoking during the last trimester of pregnancy were more likely to:

- be non-Hispanic white
- be unmarried and
- have less than a high school education.

**Characteristics of Mothers Who Reported Smoking Cigarettes  
During the Last Trimester of Pregnancy, 2006-2008**

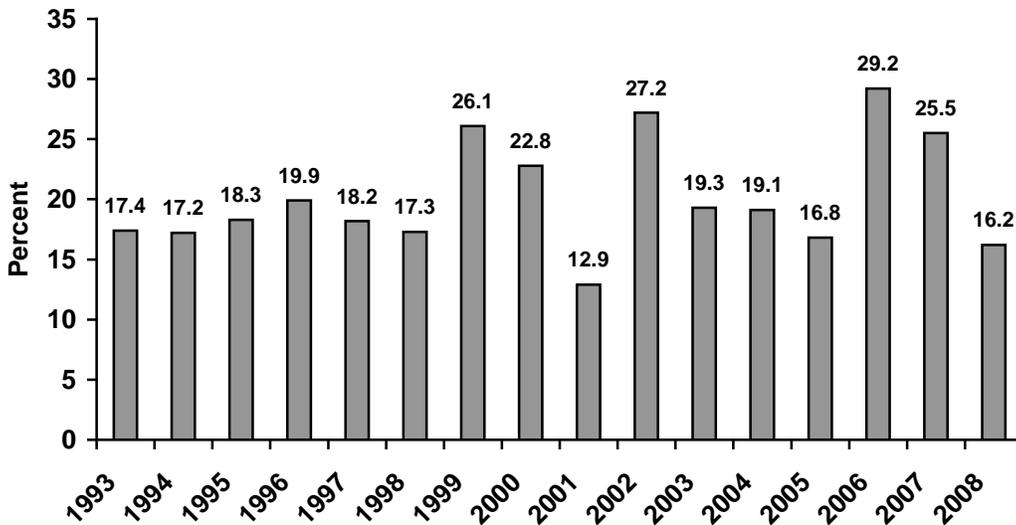
<b>Maternal Characteristic</b>	<b>2006 percent (CI)*</b>	<b>2007 percent (CI)*</b>	<b>2008** percent (CI)*</b>
<b>Race</b>			
Non-Hispanic White	17.9 ( 14.2, 22.4)	17.4 ( 13.4, 22.3)	23.1 ( 18.5, 28.4)
Non-Hispanic Black	----^	8.9 ( 5.1, 15.0)	6.8 ( 3.8, 11.9)
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	13.8 ( 9.9, 18.9)	19.3 ( 14.0, 26.0)	17.3 ( 12.5, 23.5)
25-34	12.0 ( 8.7, 16.4)	9.1 ( 6.2, 13.3)	16.0 ( 11.9, 21.1)
35-55	----^	----^	----^
<b>Education</b>			
Less than High School	16.5 ( 11.0, 24.0)	25.4 ( 17.8, 34.9)	29.1 ( 21.4, 38.2)
High School	15.5 ( 10.8, 21.7)	14.7 ( 9.5, 22.2)	22.9 ( 16.3, 31.1)
More than High School	8.1 ( 5.6, 11.7)	6.1 ( 3.9, 9.3)	----^
<b>Marital Status</b>			
Married	7.6 ( 5.2, 10.9)	9.6 ( 6.9, 13.2)	12.5 ( 9.1, 16.9)
Other	17.2 ( 13.1, 22.4)	16.3 ( 11.7, 22.4)	20.0 ( 15.2, 25.8)
<b>Medicaid Status</b>			
No	----^	----^	----^
Yes	15.9 ( 12.4, 20.0)	18.5 ( 14.3, 23.7)	21.5 ( 17.2, 26.5)
<b>Birthweight</b>			
VLBW (<1500 g)	13.7 ( 12.2, 15.5)	14.1 ( 12.3, 16.1)	16.7 ( 14.9, 18.7)
MLBW (1500-2499 g)	21.8 ( 18.1, 25.9)	19.8 ( 13.9, 27.4)	19.1 ( 15.5, 23.3)
NBW (2500+ g)	11.3 ( 8.8, 14.5)	11.8 ( 9.0, 15.3)	15.7 ( 12.4, 19.5)
<b>TOTAL</b>	12.1 ( 9.8, 15.0)	12.4 ( 9.8, 15.6)	15.9 ( 13.0, 19.4)

\*95% Confidence Interval

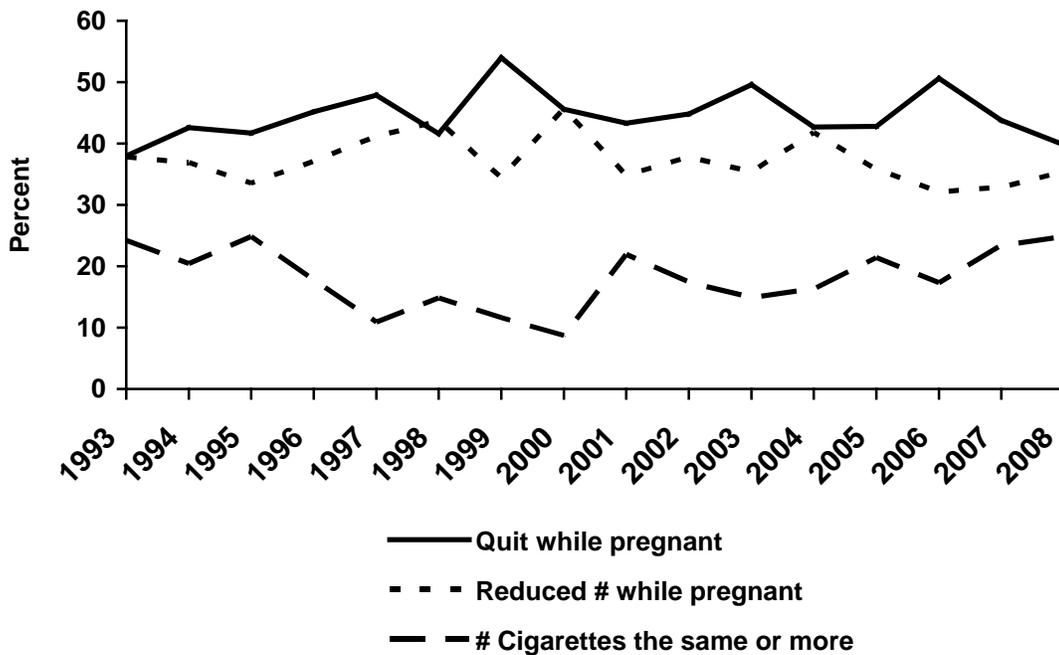
^Cell contains less than 50 respondents; data not shown

**\*\*Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in biased estimates and should be interpreted with caution.

**Proportion of Smokers Who Quit Smoking While Pregnant and Remained Non-Smokers After Delivery, 1993-2008**



**Reported Smoking Behavior During Pregnancy Among Women Who Reported Smoking Before Pregnancy, 1993-2008**



### Alcohol Consumption Fact Sheet

From 1993-2008:

The overall percent of women drinking in the three months before pregnancy has generally been between 35.0% and 45.0% since 1993. However, the percent of women drinking in the three months before pregnancy has been consistently over 40.0% from 2002-2008, reaching 45.6% in 2008.

The percentage of women who reported drinking alcohol in the last trimester of pregnancy fell from 6.3% in 1993 to a low of 3.2% in 2000, but has since risen to 7.4% in 2008. The percentage of SC mothers drinking alcohol in the last trimester of pregnancy was consistently below the Healthy People 2010 goal of 6.0% from 1994 to 2003, but has been above the goal each year from 2006 to 2008.

In 2008:

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

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

Nearly 79% of women that drank at all in the two years before they were surveyed also drank in the three months before they became pregnant. Just under 56% of these mothers reported having less than one alcoholic drink per week in the three months before they got pregnant.

95.0% of the women who drank in the last three months of pregnancy drank fewer than 4 drinks per week.

## **Alcohol Consumption**

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### **What Some South Carolina Mothers Have to Say about Alcohol:**

*“I would drink a drink every once on a blue moon.”*

*“During my pregnancy with my twins I ate healthy, quit smoking completely and had half a glass of champagne through my entire pregnancy.”*

*“... In other words if you an expecting mother and you drink, smoke, take no vitamins, then you care less about your child’s health and your baby would not be as healthy as it should.”*

*“I don’t smoke or drink during pregnancy.”*

*“No smoking or Drinking. If you do try to cut back or just quit. Think about the babies.”*

*“I wish mothers just stop having baby just so they can put them on their income taxes to get more money to spend on themselves it is not right. Cause you really don't even care about the child, if they did, they wouldn't be smoking drinking or put there selves in abuse relationship.”*

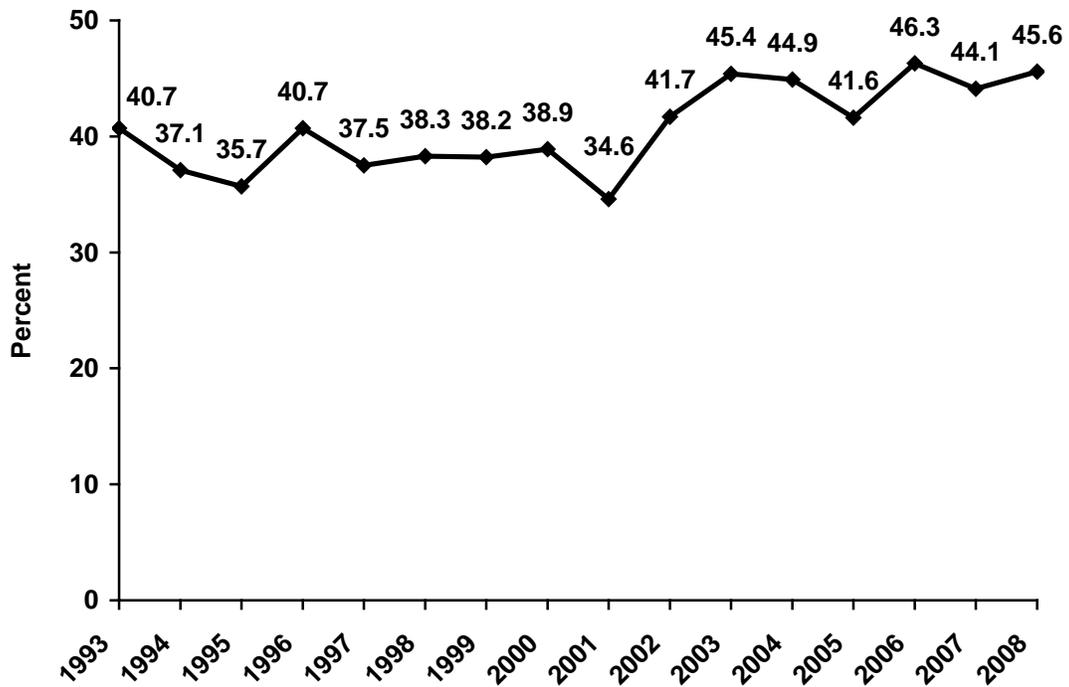
*“Before I got pregnant I smoked and drank.”*

*“Only drank on holidays.”*

## Alcohol Consumption

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### Proportion of Women Who Reported Drinking During the Three Months Before Pregnancy, 1993-2008



Women who reported drinking during the three months prior to pregnancy were more likely to:  
be non-Hispanic 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 Reported Drinking Alcohol During the Three Months Before Pregnancy, 2006-2008

Maternal Characteristic	2006 percent (CI)*	2007 percent (CI)*	2008** percent (CI)*
<b>Race</b>			
Non-Hispanic White	60.9 ( 55.6, 65.9)	54.1 ( 48.6, 59.6)	57.6 ( 51.9, 63.0)
Non-Hispanic Black	31.0 ( 24.5, 38.4)	35.1 ( 27.7, 43.4)	31.9 ( 25.2, 39.4)
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	40.4 ( 33.8, 47.3)	39.0 ( 32.0, 46.4)	35.7 ( 29.3, 42.7)
25-34	52.0 ( 46.0, 57.8)	49.2 ( 43.4, 55.1)	55.6 ( 49.5, 61.6)
35-55	50.7 ( 39.2, 62.2)	50.1 ( 39.2, 61.1)	51.5 ( 38.7, 64.1)
<b>Education</b>			
Less than High School	29.0 ( 21.7, 37.6)	24.7 ( 17.3, 34.0)	28.1 ( 20.4, 37.3)
High School	41.9 ( 34.1, 50.3)	37.5 ( 29.3, 46.5)	35.4 ( 27.5, 44.1)
More than High School	57.1 ( 51.5, 62.4)	55.7 ( 50.2, 61.0)	59.9 ( 54.2, 65.3)
<b>Marital Status</b>			
Married	50.0 ( 44.7, 55.4)	49.4 ( 44.3, 54.5)	52.3 ( 46.6, 57.9)
Other	41.7 ( 35.5, 48.2)	36.6 ( 30.0, 43.6)	38.3 ( 32.2, 44.9)
<b>Medicaid Status</b>			
No	57.7 ( 51.4, 63.7)	54.6 ( 48.7, 60.4)	57.5 ( 50.8, 63.9)
Yes	39.0 ( 33.9, 44.4)	35.1 ( 29.6, 41.0)	38.6 ( 33.3, 44.1)
<b>Birthweight</b>			
VLBW (<1500 g)	40.1 ( 37.8, 42.4)	37.5 ( 34.9, 40.0)	40.0 ( 37.5, 42.5)
MLBW (1500-2499 g)	41.0 ( 36.6, 45.6)	46.1 ( 39.9, 52.4)	41.5 ( 36.6, 46.6)
NBW (2500+ g)	46.9 ( 42.4, 51.4)	44.1 ( 39.6, 48.7)	46.0 ( 41.4, 50.7)
<b>TOTAL</b>	46.3 ( 42.3, 50.4)	44.1 ( 40.0, 48.3)	45.6 ( 41.3, 49.9)

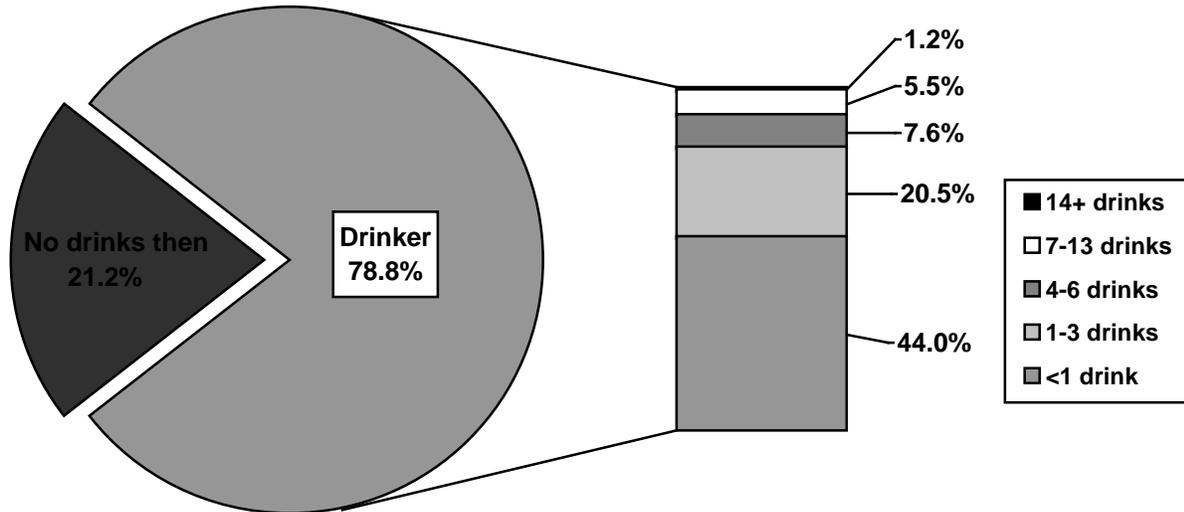
\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

\*\*Note: In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in biased estimates and should be interpreted with caution.

## Alcohol Consumption

### Number of Drinks Consumed Per Week During the Three Months Before Pregnancy\*, 2008

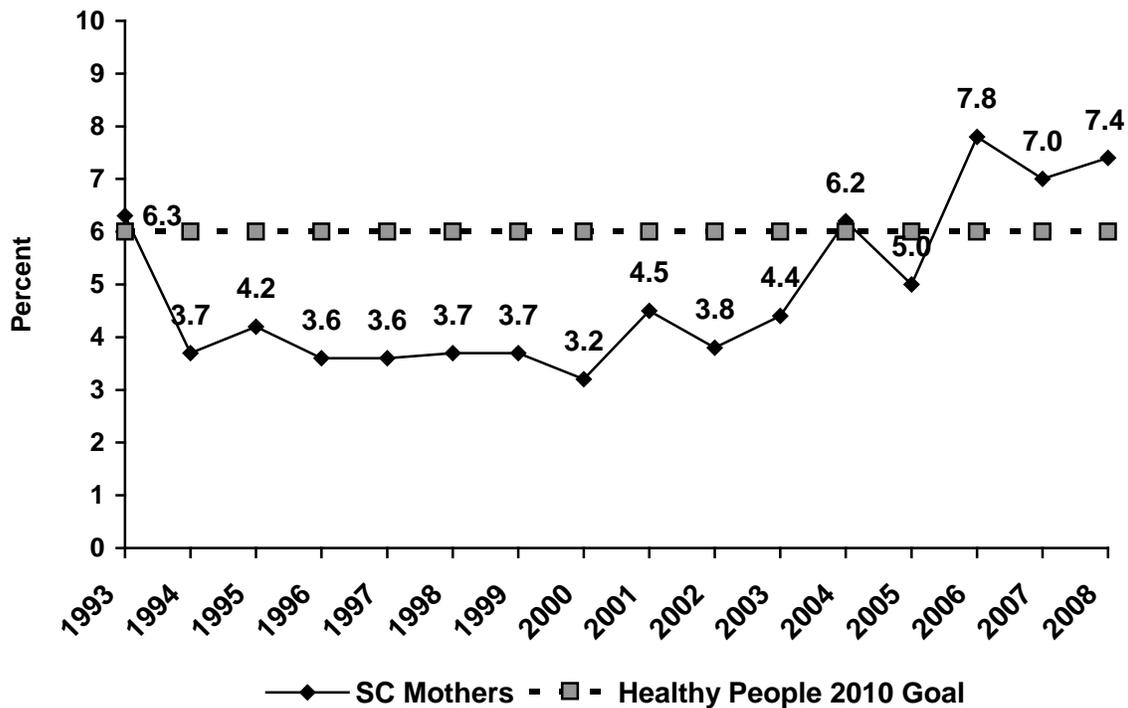


\*Among mothers having any alcoholic drinks in the two years before survey.

In 2008, 78.8% of women that drank at all in the two years before they were surveyed also drank in the three months before they became pregnant. Among these women that drank in the three months before they became pregnant, 55.8% had less than one drink per week, and 18.1% had four or more drinks per week.

## Alcohol Consumption

**Percent of Mothers Who Reported Drinking Alcohol During the Last Trimester of Pregnancy, 1993-2008**



The percentage of SC mothers who reported drinking alcohol in the last trimester of pregnancy remained consistently below the Healthy People 2010 goal of 6.0% from 1994 to 2003, however for 2006-2008 7.0% or more SC mothers drank alcohol during the last trimester.

In 2008, almost all women who drank during the last trimester drank three or fewer drinks per week (95.0%).

## **Stressful Life Events Fact Sheet**

In 2008:

Approximately 23% of women experienced four or more stressful life events in the 12 months before delivery.

Some disparities between non-Hispanic (NH) black and NH white mothers were observed among the stressful life events listed on the survey.

Statistically significant racial differences were noted in the following areas:

- mother or her partner went to jail (9.6% NH black, 5.6% NH white)

- mother in a physical fight (12.5% NH black vs. 3.8% NH white)

- argued more with husband/partner (49.9% NH black vs. 29.9% NH white)

- separated or divorced from husband (11.2% NH black vs. 8.1% NH white)

- family member hospitalized (19.2% NH black vs. 34.4% NH white).

The most common stressful life events experienced by both NH black and NH white women included:

- arguing more with husband/partner

- moving to a new address

- having a family member hospitalized

- having bills that could not be paid and

- someone close to the mother died.

Women who reported experiencing four or more stressful like events in the 12 months before delivery were more likely to:

- be 18-24 years of age

- have a high school education or less

- be unmarried and

- have a very low birthweight baby.

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

*“Personally, stress was a huge factor in my pregnancy. I already have/had an anxiety disorder before I got pregnant, and there were several situations in which I was put that caused extreme stress on me and my pregnancy.”*

*“Do what you supposed to do and don't stress yourself cause it can cause problem.”*

*“I fully believe that there needs to be more information regarding the effects of a high stress level in the home during pregnancy. Until it was too late I didn't realize how much stress I was under. I feel like stress played a major factor in my pre-term labor.”*

*“Sometime you can do everything right and still have problems during your pregnancy so don't let it get you down so much, that you stressing because, remember every time you go through something your baby will be affected also. So please try, do your best not to stress.”*

*“Make sure to take prenatal care. I also think that you should try and keep the stress level in your life as low as possible.”*

*“By living a stress free life helps to make most pregnancies safer.”*

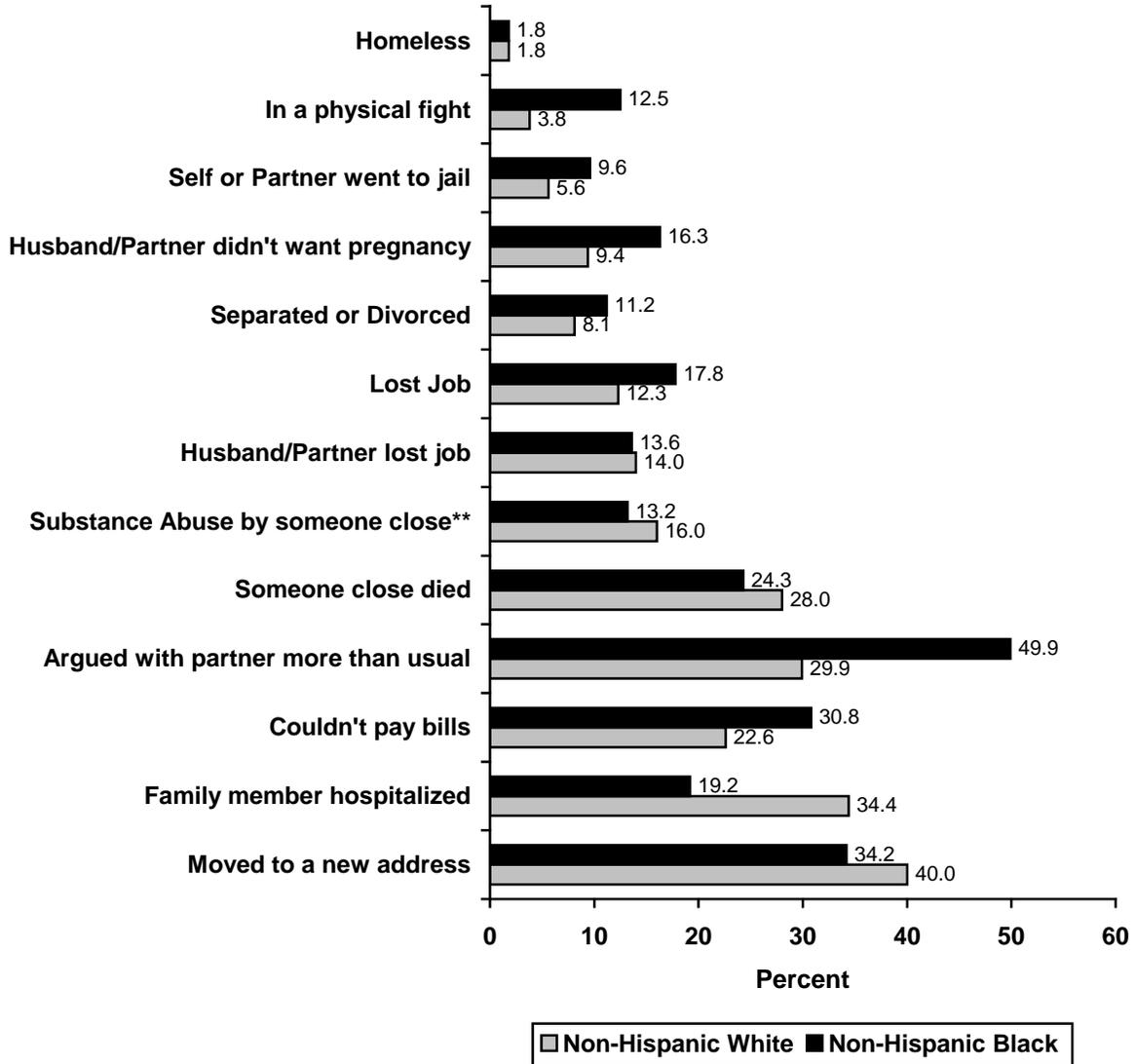
*“Due to not working at all, higher weight gain, and immense mental stress from problems in the household. I was much more fatigued for most of the pregnancy.”*

*“Stress is high because of lack of income.”*

*“Towards the end of my pregnancy my grandfather passed away & my husband found out that he was not going to be able to re enlist in the military. I was very stressed. I think it might have caused or had a hand in the fact that she has acid reflux and problems...”*

## Stressful Life Events

### Proportion of Women Who Experienced Stressful Life Events in the Twelve Months Prior to Delivery, 2008

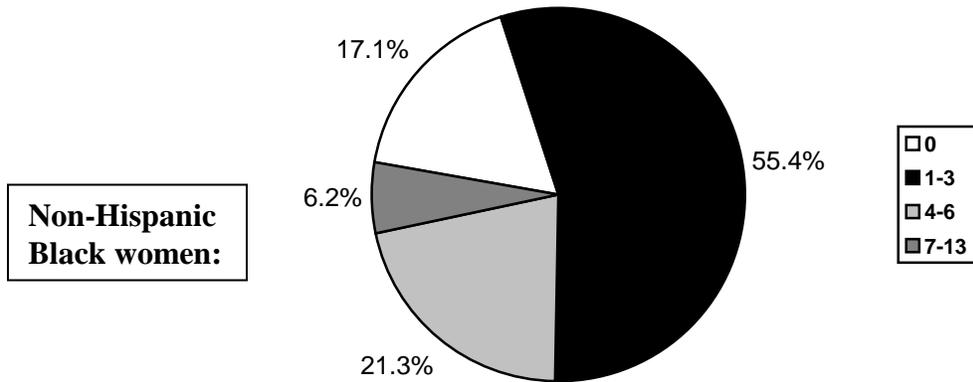


\*\*Someone close to the woman had a drinking or drug problem.

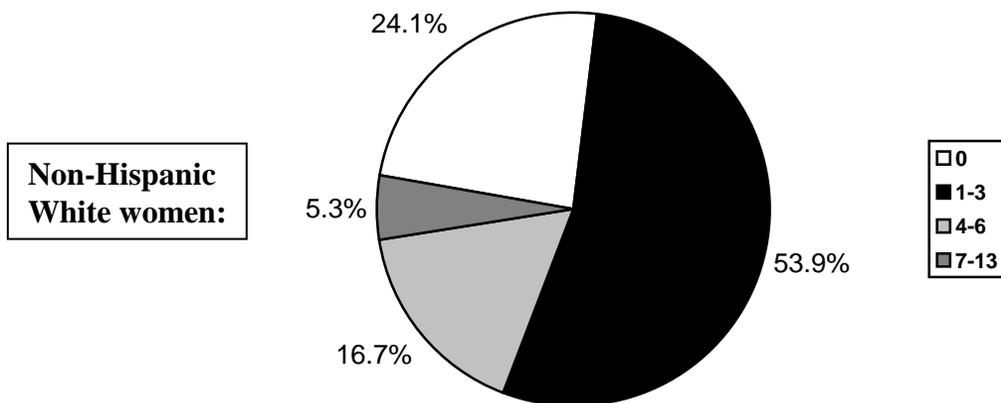
## Stressful Life Events

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### Number of Stressful Life Events Experienced in the Twelve Months Prior to Delivery by Race, 2008



Approximately 27.5% of black women experienced 4 or more of the stressful life events listed in the survey.



Approximately 22% of white women experienced 4 or more of the stressful life events listed in the survey.

## Stressful Life Events

### Characteristics of Women Experiencing High Levels of Stress\*, 2006-2008

Maternal Characteristic	2006 percent (CI)**	2007 percent (CI)**	2008† percent (CI)**
<b>Race</b>			
Non-Hispanic White	20.1 ( 16.1, 24.8)	14.7 ( 11.1, 19.2)	21.8 ( 17.4, 27.0)
Non-Hispanic Black	31.6 ( 25.0, 38.9)	33.8 ( 26.6, 41.9)	27.5 ( 21.1, 35.1)
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	28.8 ( 23.0, 35.4)	28.2 ( 22.0, 35.3)	25.1 ( 19.5, 31.7)
25-34	21.9 ( 17.2, 27.3)	16.8 ( 12.7, 21.9)	22.5 ( 17.6, 28.2)
35-55	----^	----^	----^
<b>Education</b>			
Less than High School	28.5 ( 21.3, 36.9)	34.6 ( 26.2, 44.2)	29.1 ( 21.5, 38.1)
High School	28.4 ( 21.6, 36.3)	22.4 ( 15.8, 30.8)	32.8 ( 25.0, 41.5)
More than High School	19.3 ( 15.1, 24.2)	14.5 ( 11.0, 19.0)	14.4 ( 10.7, 19.0)
<b>Marital Status</b>			
Married	16.0 ( 12.3, 20.5)	13.4 ( 10.3, 17.4)	14.3 ( 10.7, 18.9)
Other	33.8 ( 28.0, 40.1)	31.8 ( 25.6, 38.7)	32.9 ( 27.1, 39.3)
<b>Medicaid Status</b>			
No	9.2 ( 6.1, 13.7)	----^	----^
Yes	33.3 ( 28.4, 38.6)	31.5 ( 26.2, 37.3)	32.2 ( 27.2, 37.7)
<b>Birthweight</b>			
VLBW (<1500 g)	25.8 ( 23.8, 27.9)	22.5 ( 20.4, 24.8)	27.0 ( 24.7, 29.3)
MLBW (1500-2499 g)	29.1 ( 25.1, 33.4)	30.3 ( 24.2, 37.2)	21.1 ( 17.2, 25.5)
NBW (2500+ g)	23.5 ( 19.8, 27.6)	20.3 ( 16.7, 24.5)	23.1 ( 19.3, 27.4)
<b>TOTAL</b>	23.9 ( 20.6, 27.7)	21.1 ( 17.8, 24.8)	23.0 ( 19.5, 26.9)

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

\*\* 95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

†**Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in biased estimates and should be interpreted with caution.

## **Physical Abuse Fact Sheet**

From 1993-2008, the percentage of South Carolina mothers who delivered live-born infants and reported being physically abused during pregnancy by their husband or partner reached a high of 5.7% in 2002, with a low of 2.2% in 2004.

In 2006 and 2007, the percentage of reported partner abuse during pregnancy in SC remained steady at 2.8%, but this percentage increased to 4.1% in 2008.

The Healthy People 2010 goal is to have less than 2.7% of women abused by their partner during pregnancy. The only time that South Carolina has met this goal for women delivering live-born infants was in 2004.

In 2008:

8.3% of women reported being physically abused by someone before they became pregnant, and 6.1% of women reported being physically abused by someone during their pregnancy.

10.1% of women reported being physically abused before or during pregnancy by an intimate partner (husband or partner) or an ex-intimate partner. Among non-Hispanic black women, 13.9% reported being physically abused before or during pregnancy by an intimate partner or ex-intimate partner. Among non-Hispanic white women, 8.9% reported being physically abused before or during pregnancy by an intimate partner or ex-intimate partner.

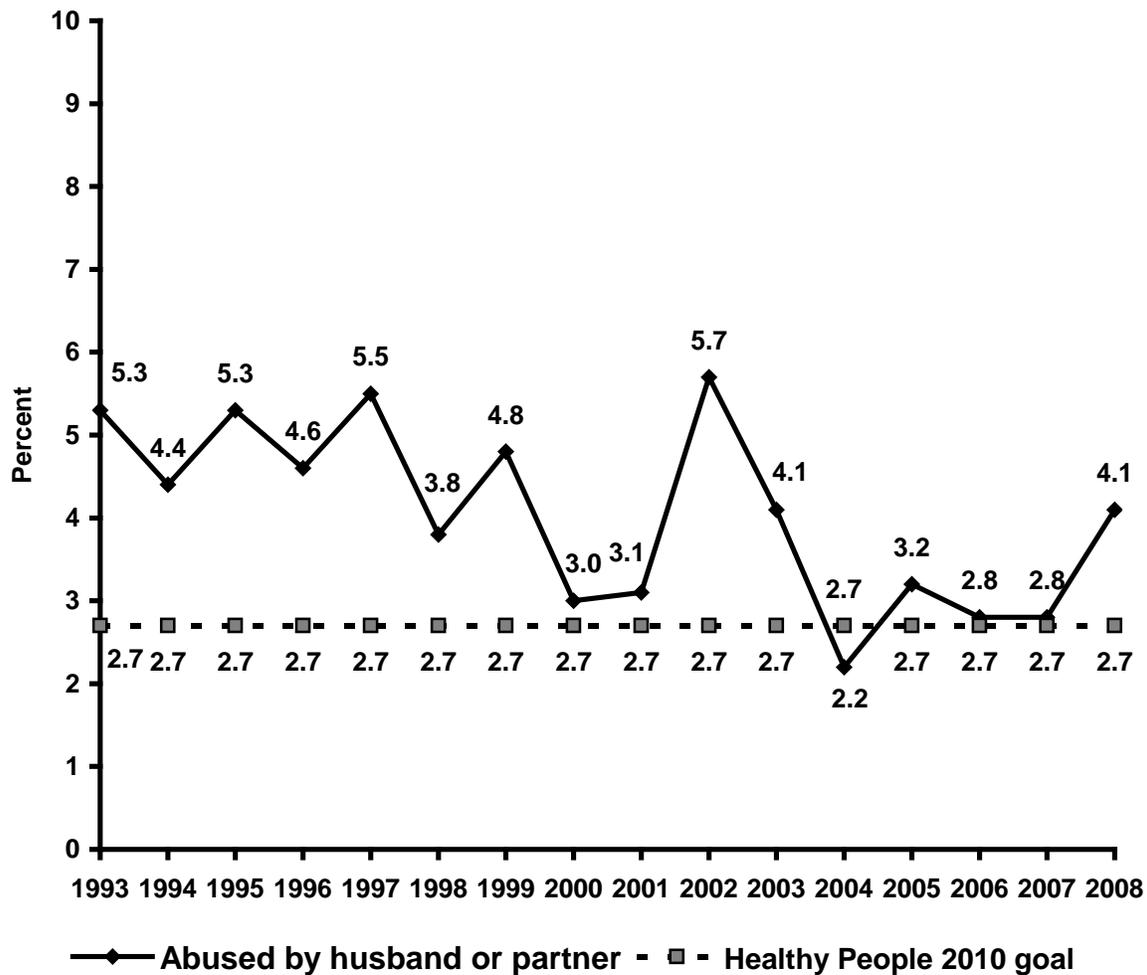
### **What Some South Carolina Mothers Have to Say about Physical Abuse:**

*“I wish when my son was in NICU that they had a mother support group. My husband was abusive--the only support system I had was my parents. A mommy group would have been great-- I almost lost my son 3 times--he even coded in my arms. It would have been nice to talk to another mom--we were there about 2 months.”*

*“I was pushed, hit, choked, kicked etc. while being pregnant, and the only reason I have a health beautiful bay is from prayer. Ladies I know its easier said than done but don't stay in a relationship that pertains of abuse because it never ends. Know I'm sitting here wondering how I can leave or get away without being killed by this man and who will raise my daughter. It's not a game get out or you will end up like me scared and feeling alone.”*

## Physical Abuse

**Percent of Women Who Reported being Physically Abused by Husband/Partner During Pregnancy, 1993-2008**



Between the years of 1993 and 2007, the percentage of reported physical abuse by husband or partner during the pregnancy decreased from 5.3% in 1993 to 2.2% in 2004, but rose to 4.1% in 2008.

In 2004, the percentage dropped below the Healthy People 2010 goal of 2.7% for the first time when it reached 2.2%; the percentage was also just above the goal in 2006 and 2007 at 2.8% before climbing to 4.1% in 2008.

## Physical Abuse

### Characteristics of Women Who Reported being Physically Abused Before or During Pregnancy by Husband/Partner or Ex-Husband/Ex-Partner, 2006-2008

Maternal Characteristic	2006 percent (CI)*	2007 percent (CI)*	2008** percent (CI)*
<b>Race</b>			
Non-Hispanic White	6.3 ( 4.1, 9.5)	----^	8.9 ( 6.0, 13.1)
Non-Hispanic Black	15.6 ( 10.6, 22.2)	10.4 ( 6.3, 16.6)	13.9 ( 9.3, 20.4)
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	13.6 ( 9.5, 19.1)	10.9 ( 7.1, 16.5)	10.8 ( 7.0, 16.2)
25-34	7.8 ( 4.9, 12.1)	5.7 ( 3.4, 9.3)	9.8 ( 6.6, 14.4)
35-55	----^	----^	----^
<b>Education</b>			
Less than High School	13.1 ( 8.3, 20.0)	----^	14.1 ( 8.8, 21.8)
High School	----^	----^	----^
More than High School	----^	----^	----^
<b>Marital Status</b>			
Married	----^	----^	----^
Other	15.4 ( 11.2, 20.8)	12.8 ( 8.9, 18.3)	15.2 ( 11.0, 20.5)
<b>Medicaid Status</b>			
No	----^	----^	----^
Yes	14.6 ( 11.1, 19.0)	10.5 ( 7.4, 14.8)	14.4 ( 10.8, 19.0)
<b>Birthweight</b>			
VLBW (<1500 g)	10.2 ( 8.8, 11.7)	10.9 ( 9.3, 12.7)	11.0 ( 9.4, 12.7)
MLBW (1500-2499 g)	----^	----^	----^
NBW (2500+ g)	----^	----^	----^
<b>TOTAL</b>	9.5 ( 7.3, 12.4)	7.0 ( 5.1, 9.6)	10.1 ( 7.7, 13.1)

\*95% Confidence Interval

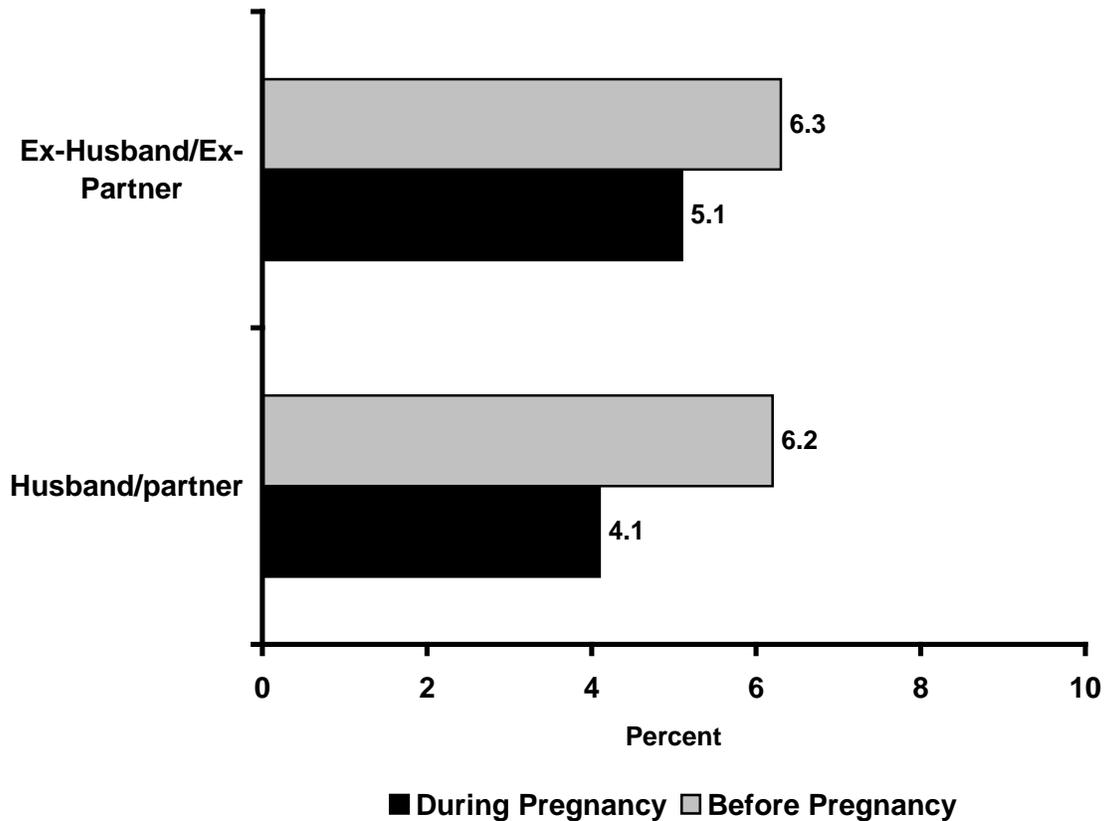
^Cell contains less than 50 respondents; data not shown

**\*\*Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in biased estimates and should be interpreted with caution.

## Physical Abuse

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**Physical Abuse Before and During Pregnancy  
by Perpetrator, 2008**



In 2008, the women in our sample were more likely to report abuse **before** their pregnancy than they were to report abuse during pregnancy.

Women that reported being physically abused during pregnancy were more likely to report being abused by an ex-husband or ex-partner than by a current husband or partner.

## **Maternal Health Fact Sheet**

From 1993-2008:

The proportion of women hospitalized during pregnancy, before delivery, remained fairly steady at about 20% from 1993 through 2003, and then increased to almost 30% from 2004 to 2006. In 2008 the proportion fell back down to 23.7%.

The mean hospital stay for mothers after delivery increased from 2.5 nights in 1999 to 3.0 nights in 2008.

In 2008:

The majority of women who were hospitalized for maternal complications during pregnancy stayed less than one day (68.4%). However, 5.7% were hospitalized for more than seven days.

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

Length of hospital stay did not differ significantly by mother's race, education, marital, status, or Medicaid status.

The majority of women (69.5%) reported not having a dental problem during pregnancy. However, 17.0% of women reported having a dental problem during pregnancy and not receiving care.

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:

*“With my preeclampsia there were no external symptoms except for high blood pressure and excessive weight gain. My daughter was born at 28 weeks. I had severe preeclampsia. Mothers should monitor themselves closely.”*

*“I feel that it is very important that all the mothers get checked like they're suppose to and not to put themselves in any stressful situation.”*

*“Unfortunately my baby was born 11 weeks early due to a problem with my health, I did not go into preterm labor. My spleen ruptured and she had to be delivered to save her life and mine.”*

*“I was put in the hospital with severe preeclampsia when I was 32 weeks pregnant.”*

*“I developed HELLP Syndrome & had my son at 31 wks. Thankfully I got steroid shots prior to his birth. He weighed 2lb 15oz but was very healthy.”*

*“Speaking as a mother over the age of 35; I believe that it is very important to have the proper prenatal care: It's for the better of you health and the baby's.”*

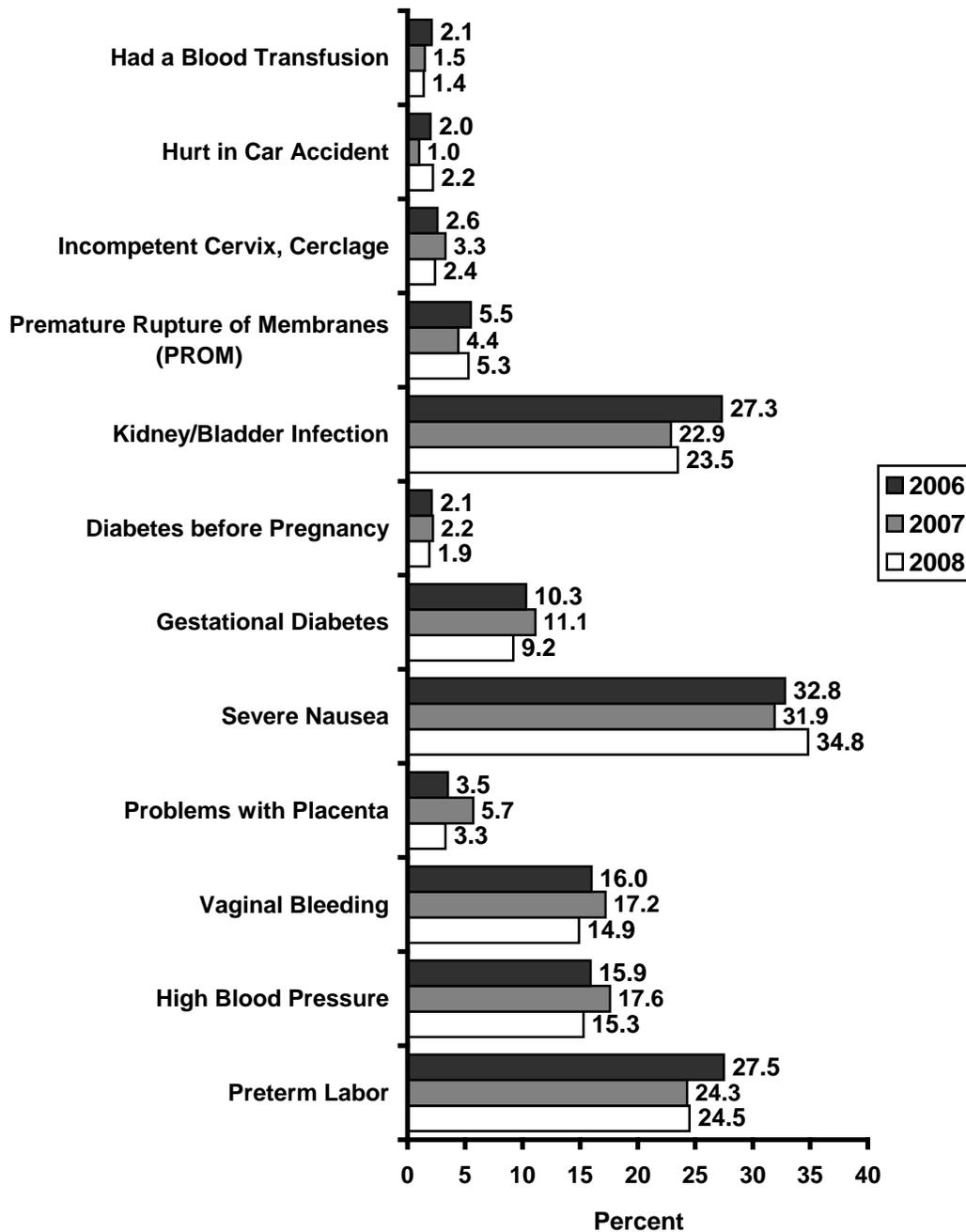
*“Doctors should provide info on how to eat correctly when pregnant.”*

*“Go to the doctor quickly during your pregnancy; don't wait; I waited until 7 months and I was sick.”*

*“Both of my pregnancies went smoothly. I ran and played tennis the full pregnancy. I had plenty of energy and little nausea during each pregnancy. I think it was due to me keeping the same schedule.”*

## Maternal Health

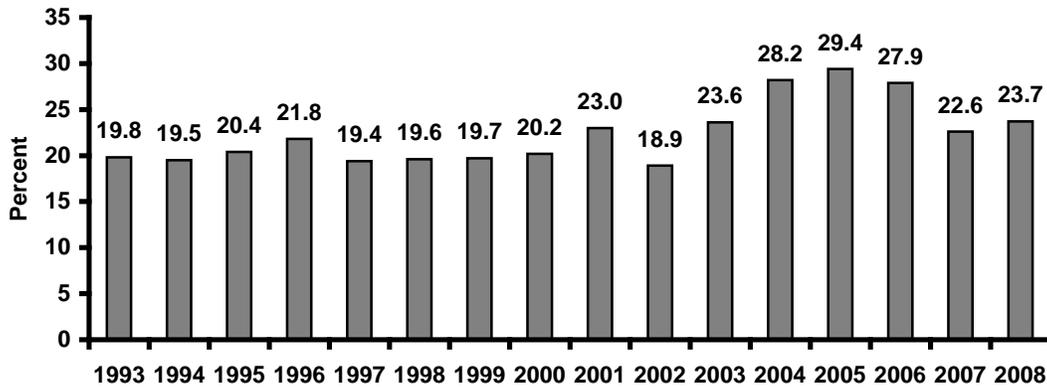
### Maternal Problems During Pregnancy, 2006-2008



In 2006, 2007 and 2008, 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

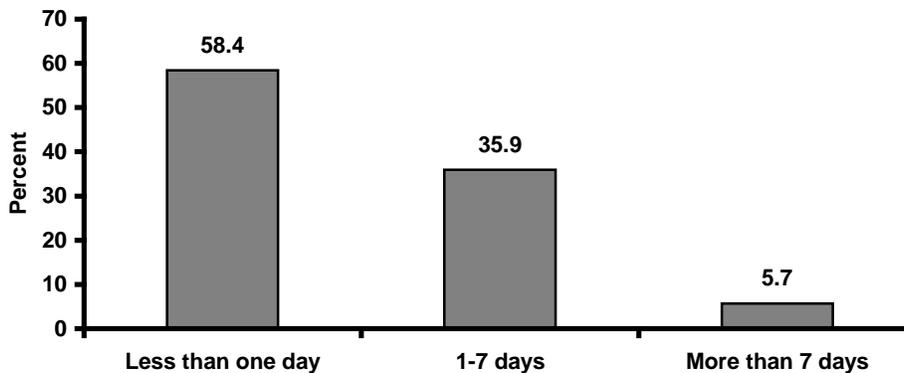
### Proportion of Women Who Were Hospitalized At Least One Night During Pregnancy (Excluding Delivery), 1993-2008\*



In 2008, 23.7% 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), 2008

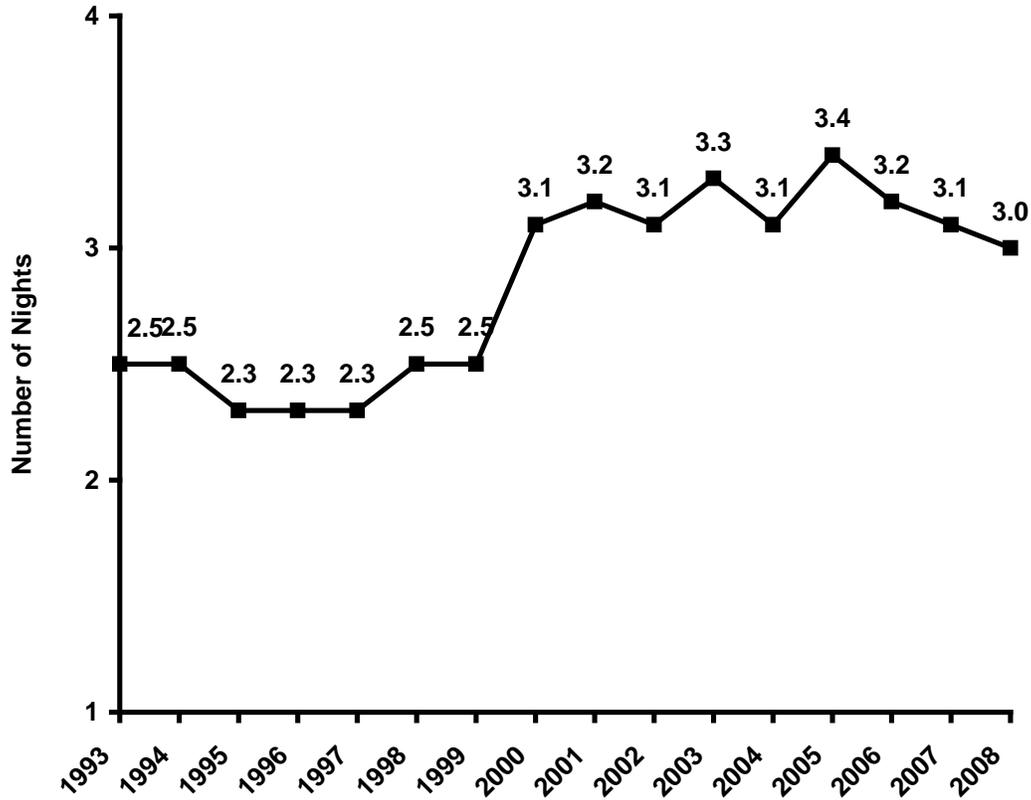


In 2008, the majority of women who were hospitalized during pregnancy stayed less than one day (58.4%). However, 5.7% were hospitalized for more than seven days.

## Maternal Health

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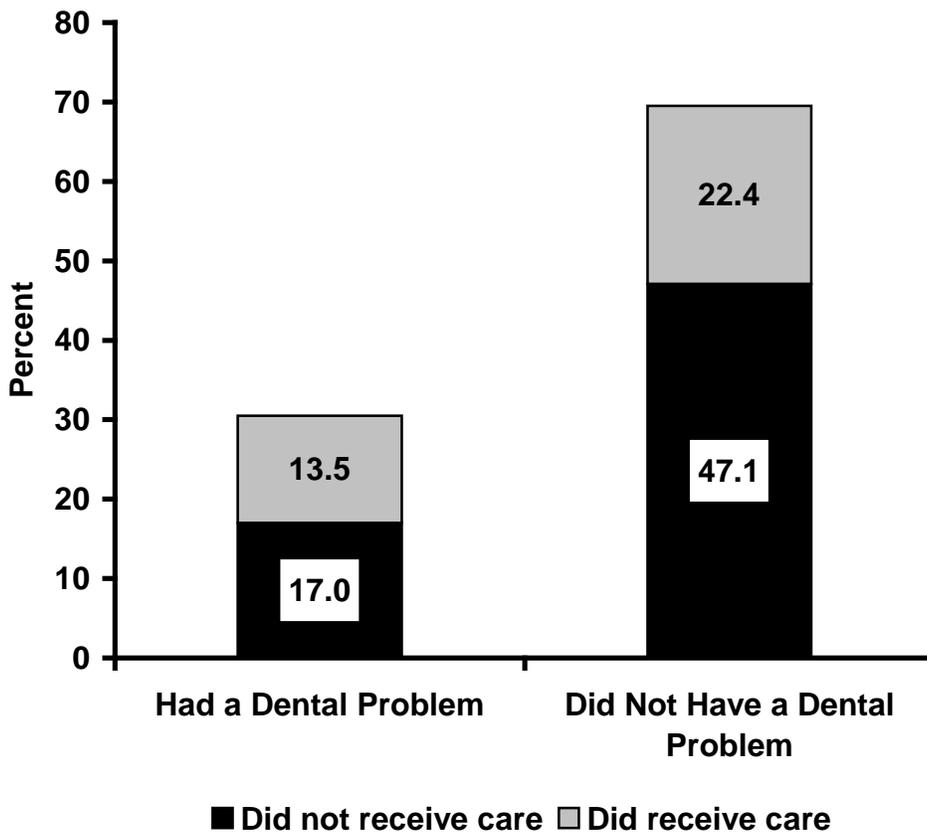
### Average Hospital Stay After Delivery (Number of Nights), 1993-2008



The average number of nights mothers spent in the hospital after delivery has increased from 2.5 nights in 1993 to a high of 3.4 nights in 2005, but has since dropped to 3.0 nights in 2008.

In 2008, length of hospital stay did not differ significantly by mother's race, education, marital status, or Medicaid status.

Oral Health During Pregnancy, 2008



In 2008, the majority of women (69.5%) reported not having a dental problem during pregnancy. However, 17.0% of women reported having a dental problem and not receiving dental care.

## Maternal Health

### Postpartum Depression Symptoms\*, 2006-2008

Maternal Characteristic	2006 percent (CI)**	2007 percent (CI)**	2008† percent (CI)**
<b>Race</b>			
Non-Hispanic White	18.5 ( 14.6, 23.1)	13.9 ( 10.4, 18.3)	14.9 ( 11.3, 19.5)
Non-Hispanic Black	19.9 ( 14.5, 26.6)	19.7 ( 14.1, 26.8)	23.9 ( 17.7, 31.3)
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	20.0 ( 15.0, 26.1)	22.8 ( 17.1, 29.8)	21.3 ( 16.1, 27.6)
25-34	17.0 ( 12.8, 22.1)	11.2 ( 8.1, 15.2)	16.9 ( 12.8, 22.1)
35-55	----^	----^	----^
<b>Education</b>			
Less than High School	25.9 ( 19.0, 34.3)	27.1 ( 19.5, 36.4)	28.2 ( 20.6, 37.3)
High School	20.3 ( 14.4, 28.0)	17.5 ( 11.7, 25.5)	18.3 ( 12.5, 26.1)
More than High School	13.4 ( 10.0, 17.8)	10.2 ( 7.4, 13.8)	12.9 ( 9.5, 17.3)
<b>Marital Status</b>			
Married	12.5 ( 9.3, 16.6)	11.6 ( 8.7, 15.4)	13.4 ( 10.0, 17.8)
Other	25.1 ( 19.9, 31.2)	22.0 ( 16.7, 28.4)	23.3 ( 18.2, 29.2)
<b>Medicaid Status</b>			
No	10.5 ( 7.3, 14.9)	8.7 ( 6.0, 12.5)	9.2 ( 6.1, 13.8)
Yes	23.3 ( 19.0, 28.3)	22.0 ( 17.5, 27.4)	23.4 ( 19.0, 28.6)
<b>Birthweight</b>			
VLBW (<1500 g)	30.7 ( 28.5, 32.9)	32.1 ( 29.6, 34.6)	29.9 ( 27.6, 32.3)
MLBW (1500-2499 g)	22.1 ( 18.4, 26.3)	29.3 ( 23.0, 36.4)	19.4 ( 15.7, 23.7)
NBW (2500+ g)	17.7 ( 14.4, 21.5)	14.5 ( 11.5, 18.2)	17.7 ( 14.3, 21.7)
<b>TOTAL</b>	18.2 ( 15.2, 21.7)	15.9 ( 13.0, 19.3)	18.0 ( 14.9, 21.6)

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

\*\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

†**Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in biased estimates and should be interpreted with caution.

## **Infant Health Fact Sheet**

From 1993-2008:

The proportion of LBW infants that stayed in an ICU decreased from 54.6% in 1993 to 46.1% in 2008.

4.4% of infants were exposed to smoke on a daily basis in 2008, down from 12.8% of infants exposed to smoke daily in 2002. Additionally, 1.6% 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 substantially from 22.7% in 1995 to 62.3% in 2008.

In 2008:

The majority of all infants (85.2%) stayed in the hospital for 3 days or less after delivery. Among infants who were placed in a neonatal intensive care unit (NICU), over 60% stayed in the hospital for six days or more after delivery.

Babies born at a birthweight less than 2500 grams (5.5 pounds) were significantly more likely to stay in the hospital for more than 48 hours after delivery.

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

*“My son was born with extensive bruising on his face and was 3wks, 1 day early. He had jaundice for almost 2 months. He is currently healthy and happy!”*

*“... He was 10 wks early. His weight was 2-13 he was 14 1/2 inches long. He also had IUGR. I had problems with low fluid during the pregnancy. I had steroid shots about 3 weeks before he was born which helped him so much.”*

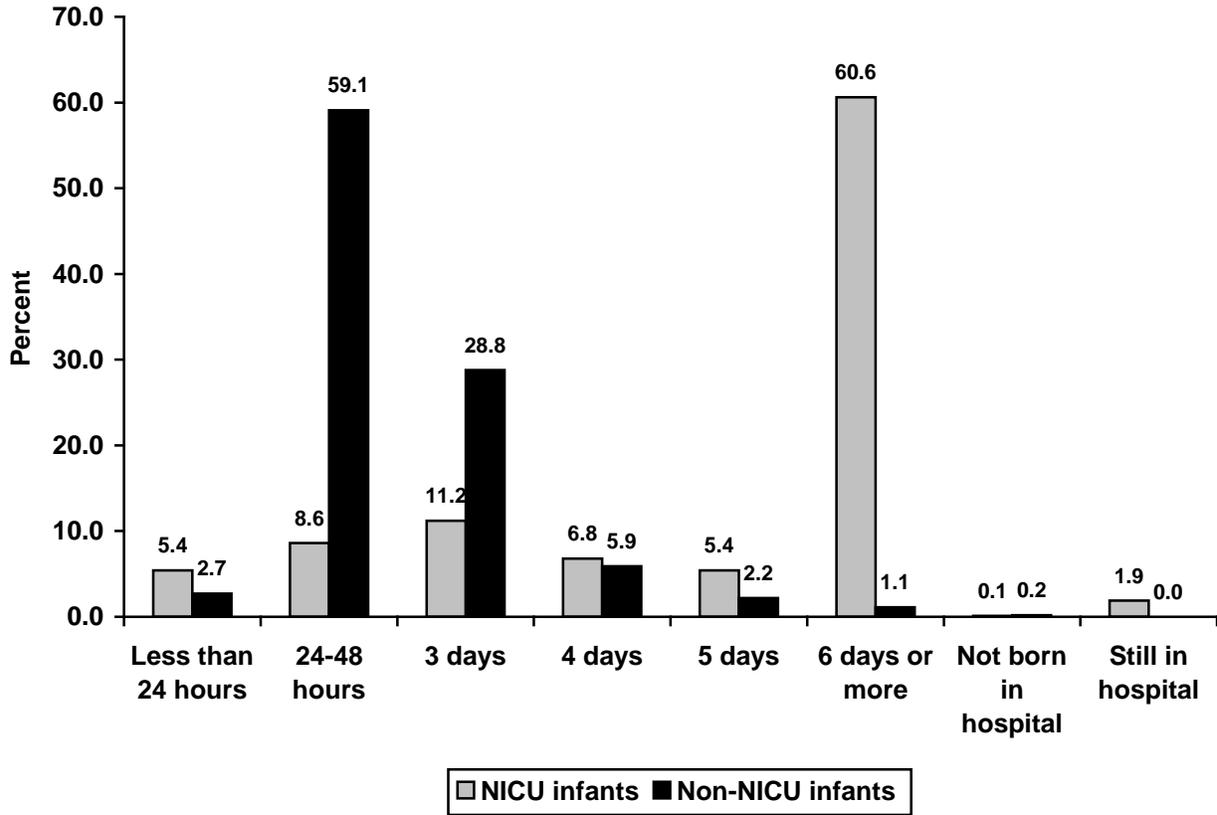
*“I'm from Ireland and after your baby is born, you are visited by a county nurse, who comes to check you and your baby in your home, she would visit every two days for the first two weeks after you have left the hospital, I was disappointed that this public service was not offered here, I did feel that I was very much on my own and it would have been good to have this nurse's advise! I was lucky though that my mother came over to help me out.”*

*“I had twins & my boy died in the NICU they were born at 27 weeks b/c he wasn't getting enough blood flow to his umbilical cord. They were less than 2 pounds b/c I didn't gain weight so I would advice mothers to eat & eat healthy.”*

*“My baby had a condition called pyloric stenosis. My husband caught it very early because my husband also had it as a child. I think that mothers need to be better educated about this condition because it can cause very serious problems. The doctors also said they are seeing more and more of it. It requires surgery to be fixed most of the time.”*

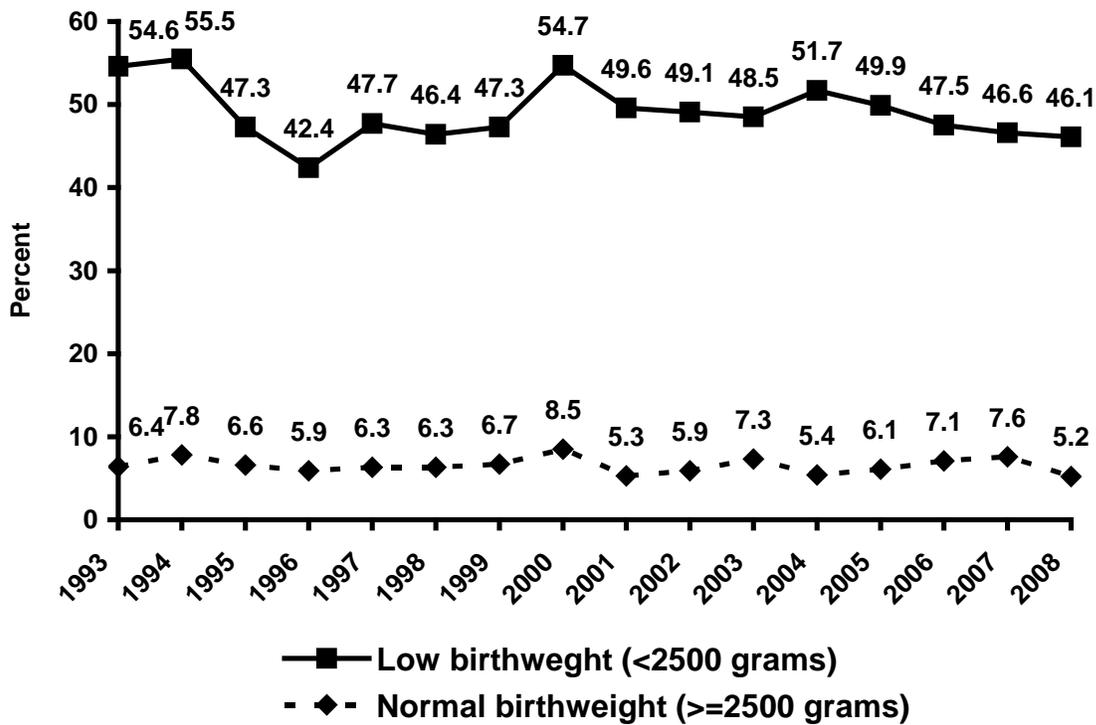
*“My baby stopped growing at 28 weeks she was 2lbs. I was 31 weeks and went in for a routine checkup measuring at 36 inches I was full of fluid and baby's heart was slow. After about 24 hours they did a emergency C-Section at [hospital name omitted] she had no deformities on the outside and had a 100% healthy check up every visit. It wasn't until they did a more in depth ultrasound that they found out her organs were deformed. A week later she was diagnosed with Trisomy 18 and a week after she died in the NICU from heart failure.”*

**Number of Nights Infants Stayed in Hospital After Delivery, 2008**



Among the infants who stayed in the neonatal intensive care unit, 62.5% stayed in the hospital six days or more, or were still in the hospital at the time of survey. Excluding infants who stayed in the NICU, 61.8% of the infants stayed in the hospital for less than 48 hours.

Proportion of Infants Who Stayed in a Neonatal Intensive Care Unit by Birthweight, 1993-2008



From 1993 through 2008, the proportion of low birthweight infants who stayed in the neonatal intensive care unit (NICU) fluctuated between 55.5% and 42.4%.

The proportion of normal birthweight infants who stayed in the NICU fluctuated between a high of 8.5% (2000) and a low of 5.2% (2008).

## Infant Health

### Characteristics of Women Whose Infants Stayed in the Hospital for More Than 48 Hours After Delivery, 2006-2008

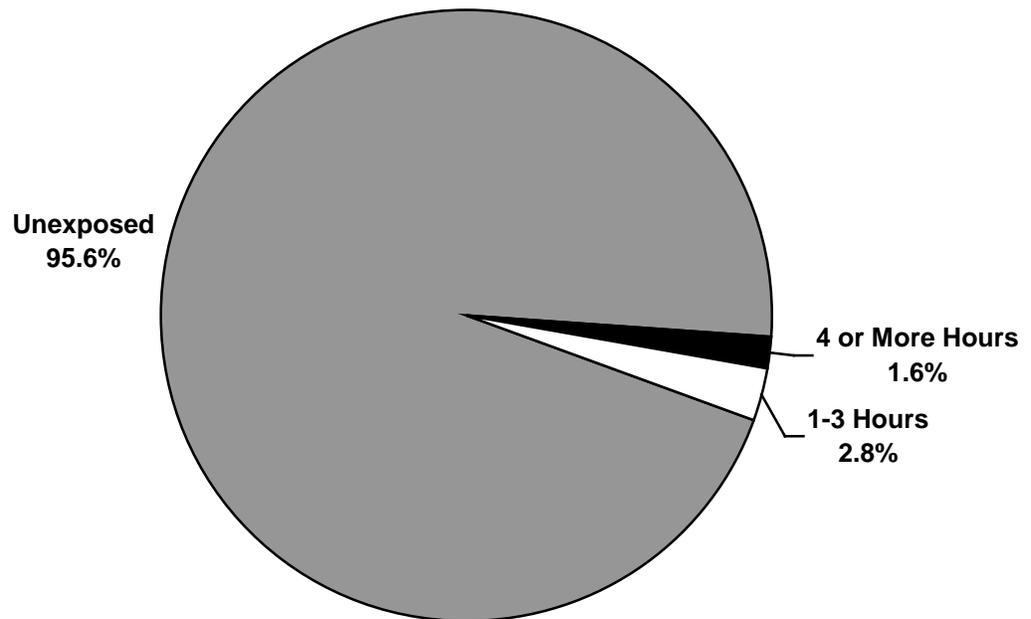
Maternal Characteristic	2006 percent (CI)*	2007 percent (CI)*	2008** percent (CI)*
<b>Race</b>			
Non-Hispanic White	38.0 ( 33.1, 43.2)	36.8 ( 31.8, 42.2)	39.2 ( 33.9, 44.8)
Non-Hispanic Black	45.5 ( 38.3, 52.9)	50.5 ( 42.5, 58.5)	43.0 ( 35.5, 50.7)
Other Race	54.4 ( 42.2, 66.1)	45.1 ( 34.2, 56.4)	55.8 ( 43.1, 67.8)
<b>Age</b>			
Less than 18	34.1 ( 19.5, 52.4)	----^	----^
18-24	42.9 ( 36.3, 49.8)	41.6 ( 34.6, 48.9)	45.5 ( 38.6, 52.6)
25-34	43.6 ( 37.9, 49.5)	43.1 ( 37.4, 49.0)	37.7 ( 32.0, 43.6)
35-55	40.5 ( 29.7, 52.3)	42.9 ( 32.3, 54.1)	52.4 ( 39.8, 64.8)
<b>Education</b>			
Less than High School	47.1 ( 38.6, 55.8)	46.0 ( 36.7, 55.5)	48.2 ( 38.9, 57.6)
High School	41.3 ( 33.6, 49.5)	44.5 ( 35.9, 53.4)	42.8 ( 34.5, 51.6)
More than High School	41.0 ( 35.7, 46.5)	39.5 ( 34.3, 44.9)	39.3 ( 34.0, 44.9)
<b>Marital Status</b>			
Married	41.6 ( 36.4, 46.9)	38.0 ( 33.1, 43.0)	40.2 ( 34.8, 45.8)
Other	43.1 ( 36.9, 49.4)	48.3 ( 41.3, 55.4)	45.3 ( 38.9, 51.9)
<b>Medicaid Status</b>			
No	39.6 ( 33.7, 45.7)	37.3 ( 31.8, 43.1)	39.0 ( 32.9, 45.5)
Yes	44.5 ( 39.2, 49.9)	46.3 ( 40.5, 52.3)	44.6 ( 39.1, 50.3)
<b>Birthweight</b>			
VLBW (<1500 g)	85.4 ( 83.6, 87.0)	88.2 ( 86.4, 89.9)	89.2 ( 87.4, 90.8)
MLBW (1500-2499 g)	72.6 ( 68.3, 76.6)	67.1 ( 60.2, 73.4)	66.3 ( 61.3, 70.9)
NBW (2500+ g)	39.3 ( 35.0, 43.8)	39.4 ( 35.0, 44.0)	39.8 ( 35.3, 44.5)
<b>TOTAL</b>	42.6 ( 38.6, 46.6)	42.3 ( 38.2, 46.4)	42.5 ( 38.3, 46.7)

\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

**\*\*Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in biased estimates and should be interpreted with caution.

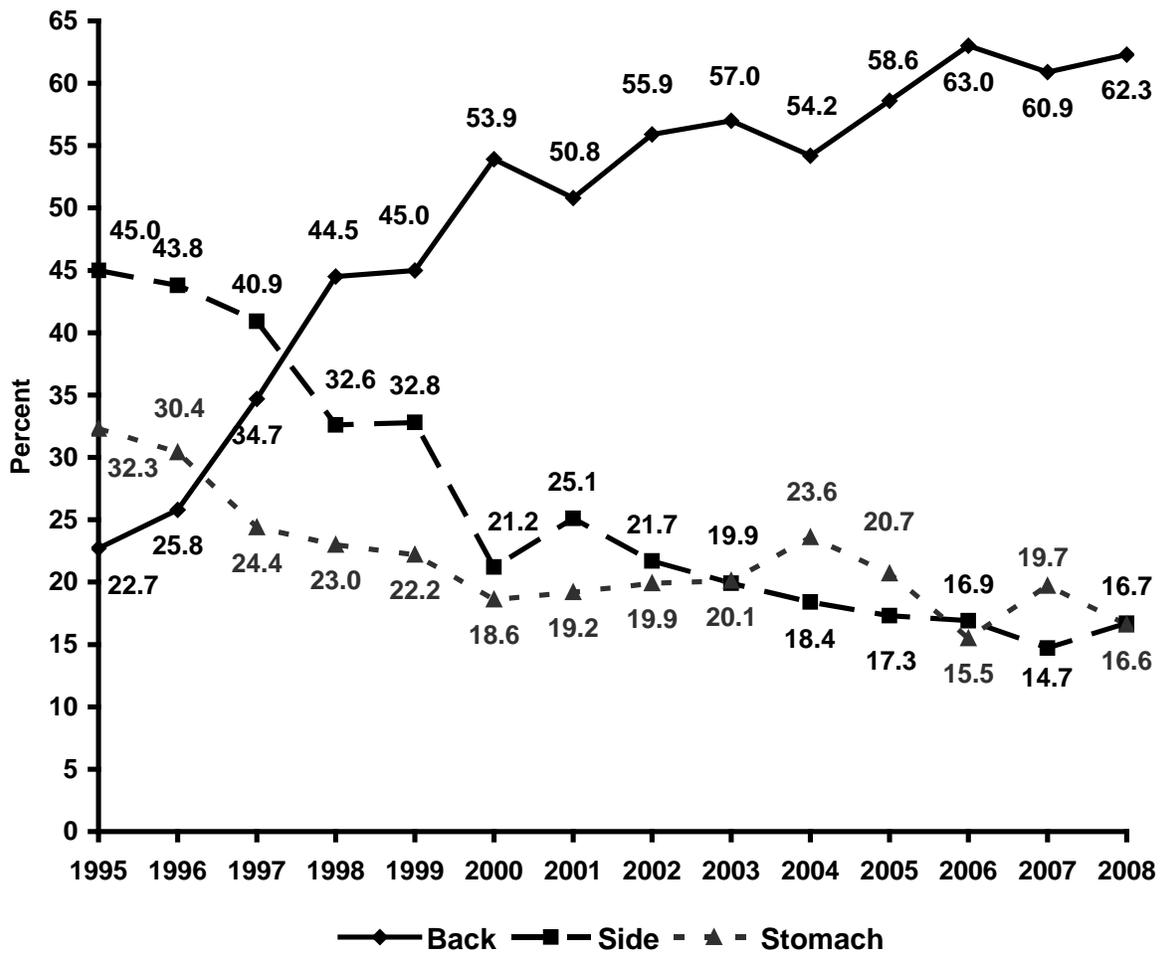
**Proportion of Infants Exposed to Smoke Daily, 2008**



The proportion of infants exposed to smoke on a daily basis decreased from 12.8% in 2002 to 4.4% in 2008.

The proportion of infants exposed to smoke for 4 or more hours daily has decreased from 4.6% in 1999 to 1.6% in 2008.

Infant Sleep Position, 1995-2008



Infant sleeping positions changed dramatically during the years 1995 through 2008. 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 62.3 % in 2008.

## **Breastfeeding Fact Sheet**

From 1993-2008:

The percent of mothers who breastfed for more than one week postpartum increased from 37.4% in 1993 to 66.4% in 2006, but has since fallen to 59.3% in 2008.

The percent of WIC mothers who breastfed for more than one week increased from 20.9% in 1993 to 54.8% in 2006, but has since fallen to 50.0% in 2008.

The percent of mothers who breastfed for more than one month postpartum increased from 15.5% in 1993 to 50.0% in 2006, but has since fallen to 46.9% in 2008.

In 2008:

Over 40% 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 non-Hispanic 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 of having 75% of mothers breastfeeding in the early postpartum period.

### **What Some South Carolina Mothers Have to Say about Breastfeeding:**

*“Breastfeeding feeding is the best when it comes to feeding...”*

*“I would like to know more about breast feeding. Also how do you get your breasts to stop leaking?”*

*“Would also like to see more women choose to breast feed & be able to have easy access to support regarding breastfeeding to encourage them through it.”*

*“I tried and tried to breastfeed and pump milk but the milk just would not come.”*

*“Couldn't get an adequate supply of breast milk for baby.”*

*“I had a breast reduction a few years ago & have no mammary glands.”*

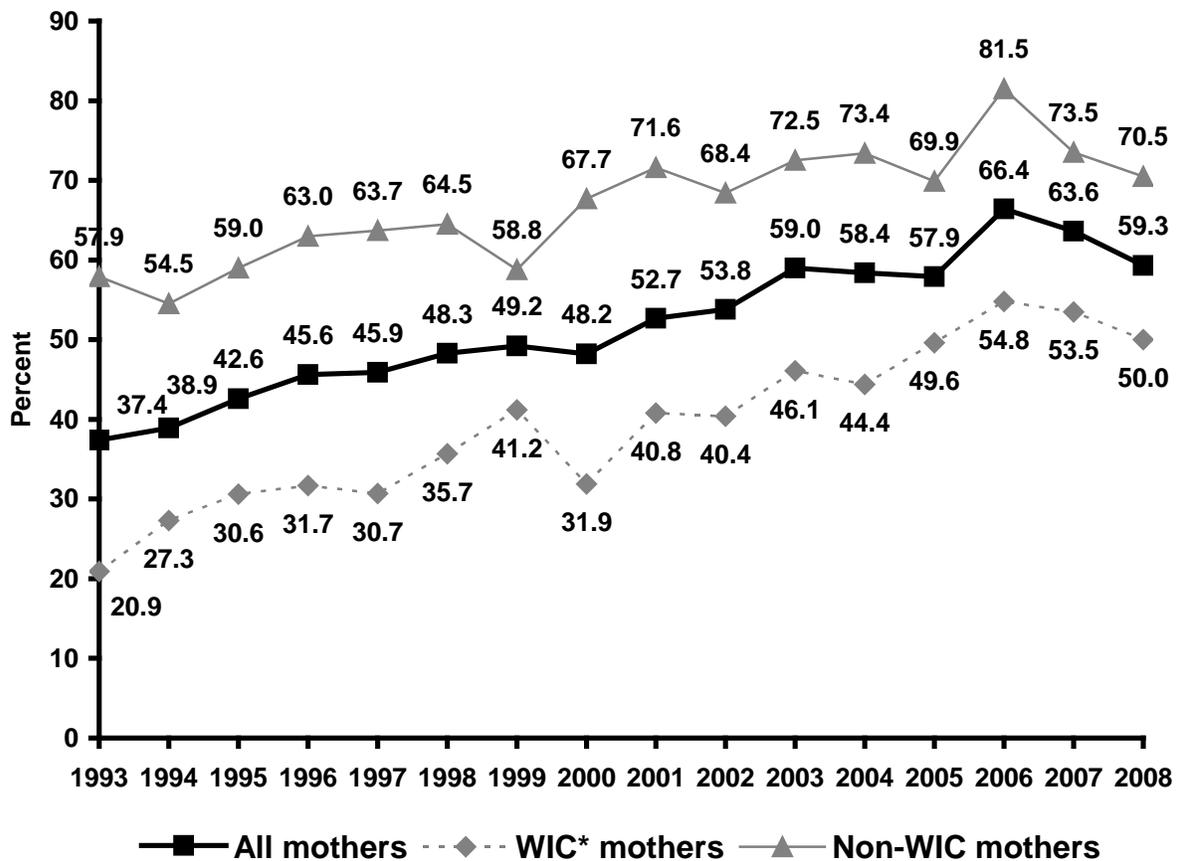
*“With the blood pressure medicine & pain medicine I couldn't breastfeed.”*

*“Dr. said ‘can't use birth control until you stop breast feeding.’”*

*“My baby girl was born 7 weeks preterm. She weighed 4lbs. & 11oz'at birth. She is now 3 months old exactly and weighs 11 lbs. She is strictly breastfed.”*

## Breastfeeding

### Trend of Breastfeeding for More than One Week, 1993-2008

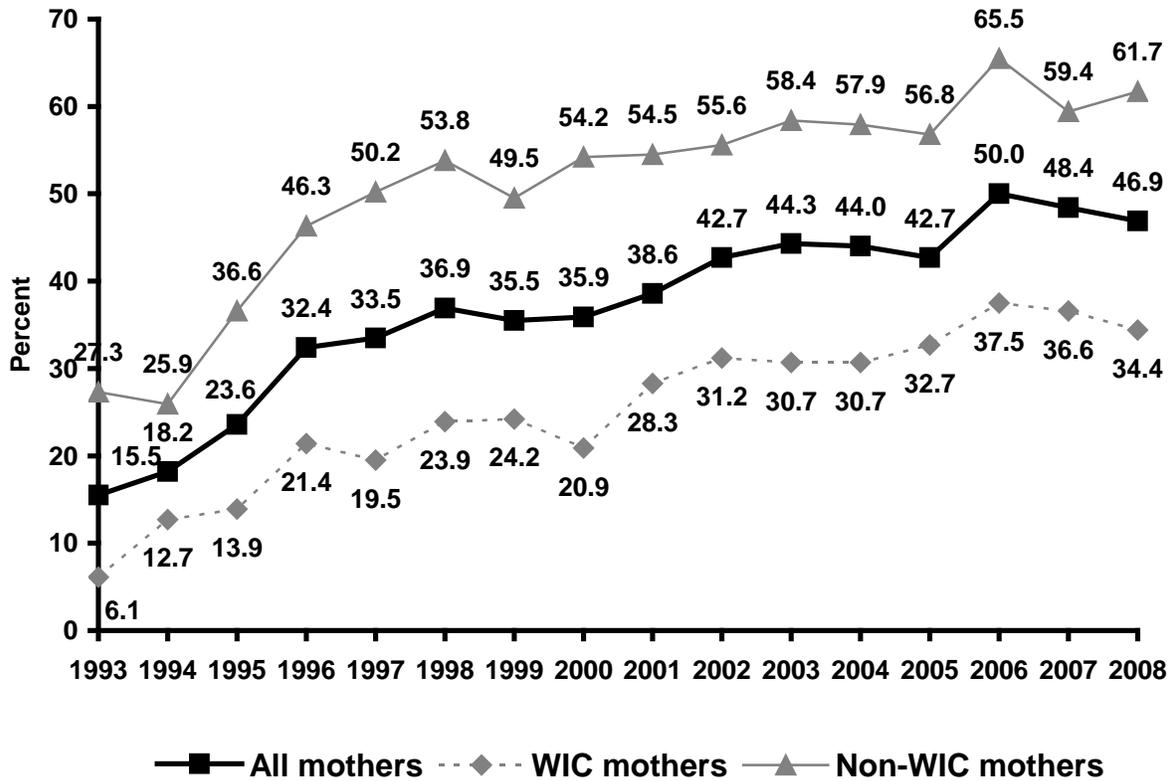


Compared to non-WIC mothers, WIC mothers were less likely to breastfeed for one or more weeks. The percentage of mothers breastfeeding for more than one week generally increased among all mothers from 1993 to 2006. However, the prevalence of breastfeeding for more than one week dropped in both 2007 and 2008 for both WIC and non-WIC mothers.

**\*Note:** WIC is the Special Supplemental Nutrition Program for Women, Infants, and Children. For more information about South Carolina WIC visit [www.scdhec.gov/health/mch/wic](http://www.scdhec.gov/health/mch/wic).

# Breastfeeding

## Trend of Breastfeeding for More than One Month, 1993-2008



The trend among WIC mothers in breastfeeding for more than one month has been similar to the trend among non-WIC mothers. However, the prevalence of breastfeeding for more than one month among non-WIC mothers has been higher than among WIC mothers for each year.

## Breastfeeding

### Characteristics of Women Who Did NOT Breastfeed or Breastfed for Less than One Week, 2006-2008

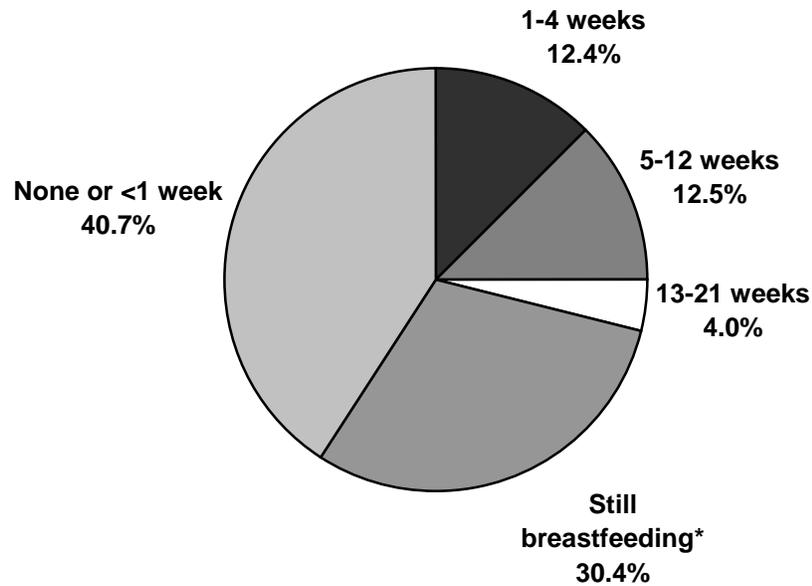
<b>Maternal Characteristic</b>	<b>2006 percent (CI)*</b>	<b>2007 percent (CI)*</b>	<b>2008** percent (CI)*</b>
<b>Race</b>			
Non-Hispanic White	28.9 ( 24.3, 34.1)	32.2 ( 27.1, 37.8)	37.2 ( 31.8, 43.0)
Non-Hispanic Black	49.8 ( 42.2, 57.5)	50.4 ( 42.2, 58.6)	58.6 ( 50.7, 66.0)
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	42.6 ( 35.8, 49.6)	46.4 ( 39.0, 54.0)	50.1 ( 43.0, 57.2)
25-34	27.4 ( 22.3, 33.1)	27.2 ( 22.1, 33.0)	33.6 ( 27.9, 39.7)
35-55	----^	35.5 ( 25.4, 47.1)	----^
<b>Education</b>			
Less than High School	45.5 ( 36.8, 54.5)	50.4 ( 40.7, 60.1)	48.4 ( 39.0, 57.8)
High School	46.5 ( 38.3, 54.9)	48.0 ( 39.1, 57.1)	56.1 ( 47.0, 64.7)
More than High School	21.1 ( 16.8, 26.2)	25.1 ( 20.5, 30.4)	28.6 ( 23.6, 34.1)
<b>Marital Status</b>			
Married	22.8 ( 18.4, 27.8)	26.4 ( 22.0, 31.3)	27.2 ( 22.4, 32.7)
Other	47.5 ( 41.0, 54.2)	50.5 ( 43.3, 57.6)	56.2 ( 49.5, 62.7)
<b>Medicaid Status</b>			
No	17.5 ( 13.2, 22.8)	22.1 ( 17.4, 27.6)	23.0 ( 17.9, 29.1)
Yes	44.1 ( 38.7, 49.6)	48.4 ( 42.4, 54.5)	51.4 ( 45.7, 57.1)
<b>Birthweight</b>			
VLBW (<1500 g)	22.5 ( 20.2, 24.9)	21.6 ( 19.2, 24.2)	22.8 ( 20.4, 25.4)
MLBW (1500-2499 g)	46.6 ( 41.9, 51.3)	42.1 ( 36.3, 48.3)	50.5 ( 45.4, 55.7)
NBW (2500+ g)	32.7 ( 28.6, 37.2)	36.2 ( 31.8, 40.8)	40.2 ( 35.6, 44.9)
<b>WIC Status</b>			
No	18.5 (14.2, 23.7)	26.5 (21.5, 32.2)	29.5 (24.0, 35.7)
Yes	45.2 (39.5, 51.1)	46.5 (40.3, 52.9)	50.0 (43.9, 56.0)
<b>TOTAL</b>	<b>33.6 ( 29.8, 37.7)</b>	<b>36.4 ( 32.3, 40.7)</b>	<b>40.7 ( 36.5, 45.0)</b>

\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

**\*\*Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in biased estimates and should be interpreted with caution.

**Duration of Breastfeeding, 2008**



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

In 2008, just over 40% of women did not breastfeed or breastfed for less than one week. However, 34.4% of mothers breastfed for 13 or more weeks.

## **Financial Issues Fact Sheet**

From 2006-2008:

Between 27.0% and 29.0% of pregnant women had a total household income of less than \$10,000 annually.

Between 18.5% and 23.8% of pregnant women received income from some sort of public assistance (such as Aid to Families with Dependent Children [AFDC], welfare, food stamps, or Supplemental Security Income [SSI]).

Women receiving public assistance during pregnancy were more likely to:  
be non-Hispanic black  
have a high school education or less and  
be unmarried.

In 2006, 2007, and 2008 the most common source of payment for both prenatal care and delivery was Medicaid, followed by private health insurance.

In 2008:

36.6% of women delivering live births in South Carolina were living at less than 100% of the federal poverty level and 20.8% of these women were living between 100-185% of the federal poverty level.

36.6% of women delivering live births in South Carolina 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:**

*“I had health insurance, but it did not cover any maternity benefits, even vitamins. I was glad this was my fourth baby because at least I knew what to expect. I felt like the Drs and hospital did just the minimum of what they had to. I even had to remind them I hadn't been given Rhogam at about 34 weeks.”*

*“Health insurance is too expensive!! I pay for 90/10 500 DED for my husband, myself, & my daughter for 850.00 a month. Ridiculous!”*

*“I have ‘great’ insurance--- but still owe \$2200 in medical bills. It's ridiculous. My husband has a great job-- but we have insurance that still makes us pay a lot out of pocket.”*

*“Hospital bills are outrageous if you have only one insurance to help cover most of it. You could spend the rest of your life paying on medical bills. The only medical bills we have are the 5 bills from when I had my daughter and we are struggling to pay those.”*

*“My OB-GYN needs me to pay down balance before they will give me birth control.”*

## Financial Issues

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### Total Annual Household Income for Women During Pregnancy, 2006-2008

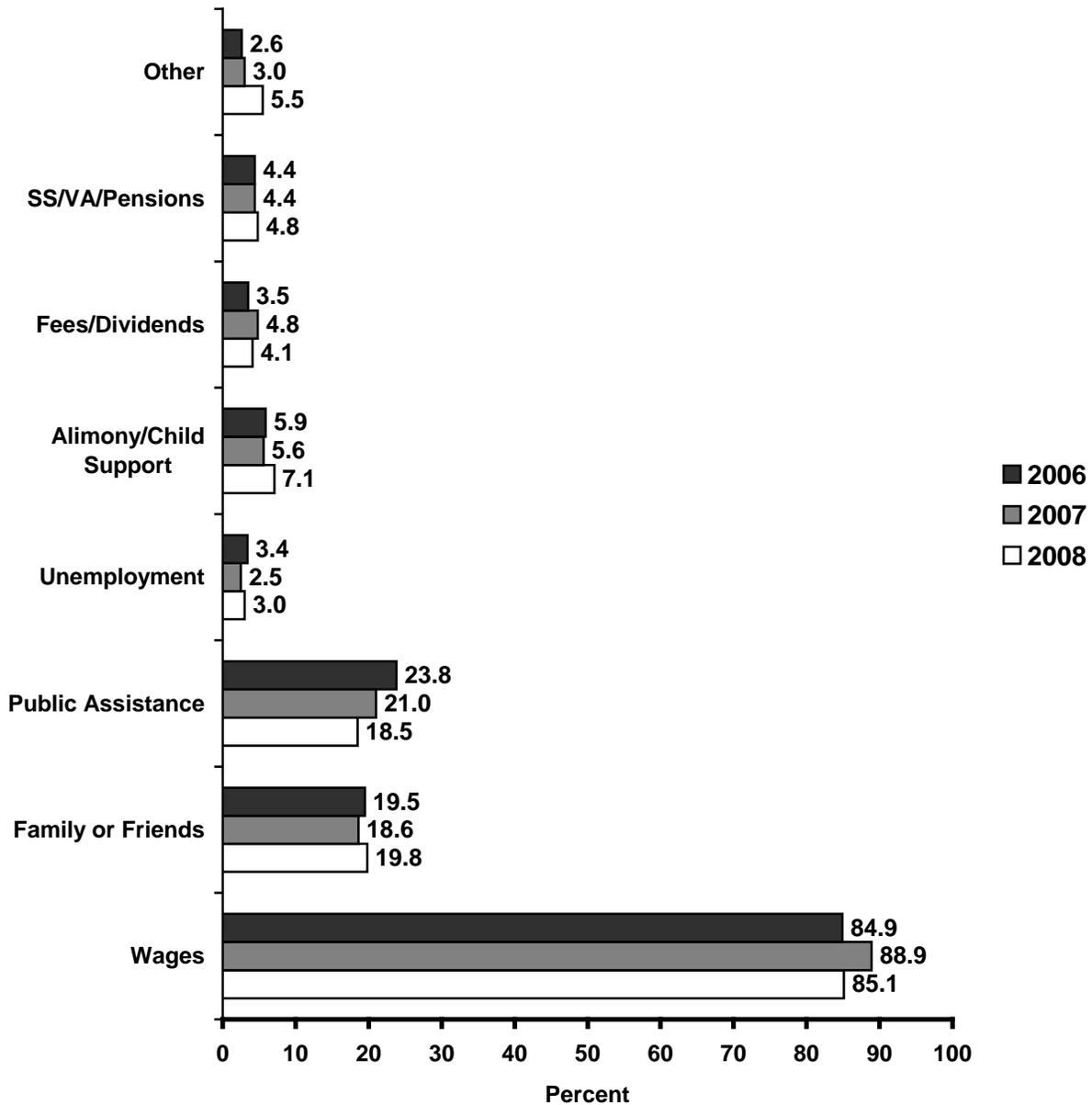
<b>Income Level</b>	<b>2006</b> percent (CI)*	<b>2007</b> percent (CI)*	<b>2008</b> percent (CI)*
< 10,000	27.9 (24.1, 32.0)	29.0 (25.1, 33.2)	27.0 (23.2, 31.2)
10,000-14,999	12.9 (10.2, 16.1)	10.1 (7.7, 13.2)	12.9 (10.1, 16.3)
15,000-19,999	8.0 ( 6.0, 10.6)	7.1 ( 5.2, 9.7)	7.2 ( 5.2, 9.9)
20,000-24,999	7.5 ( 5.5, 10.2)	5.9 ( 4.2, 8.2)	8.1 (6.0, 10.9)
25,000-34,999	11.2 ( 8.8, 14.1)	10.1 ( 7.8, 13.1)	11.4 ( 9.0, 14.5)
35,000-49,999	11.1 ( 8.8, 13.9)	9.3 ( 7.2, 12.0)	8.7 ( 6.6, 11.4)
50,000+	21.5 (18.4, 24.9)	28.5 (25.0, 32.3)	24.7 (21.3, 28.4)

**\*95% Confidence Interval**

In 2008, 27.0% of women delivering live infants had a total annual household income of less than \$10,000.

In 2008, 24.7% of women delivering live infants had a total annual household income of \$50,000 or greater.

Sources of Income\* During Pregnancy, 2006-2008



The top three sources of total household income for 2008 were:  
 money from a job or business  
 money from family or friends and  
 public assistance (such as Aid to Families with Dependent Children [AFDC], welfare,  
 food stamps, or Supplemental Security Income [SSI]).

\*Note: Sources of income are not mutually exclusive.

**Characteristics of Women Earning Wages\*, 2006-2008**

<b>Maternal Characteristic</b>	<b>2006 percent (CI)**</b>	<b>2007 percent (CI)**</b>	<b>2008† percent (CI)**</b>
<b>Race</b>			
Non-Hispanic White	91.5 ( 88.0, 94.1)	94.4 ( 91.2, 96.5)	89.2 ( 84.9, 92.4)
Non-Hispanic Black	74.7 ( 67.6, 80.7)	80.8 ( 73.8, 86.3)	75.2 ( 67.9, 81.4)
Other Race	82.1 ( 70.6, 89.7)	85.1 ( 75.3, 91.4)	90.1 ( 80.3, 95.3)
<b>Age</b>			
Less than 18	59.5 ( 40.8, 75.8)	----^	----^
18-24	79.9 ( 73.8, 85.0)	85.7 ( 79.9, 90.1)	81.8 ( 75.7, 86.7)
25-34	89.8 ( 85.4, 93.0)	92.6 ( 88.7, 95.2)	89.6 ( 85.1, 92.8)
35-55	91.4 ( 81.6, 96.3)	90.1 ( 80.9, 95.1)	95.2 ( 87.8, 98.2)
<b>Education</b>			
Less than High School	63.1 ( 54.4, 71.0)	76.0 ( 67.2, 83.1)	71.8 ( 62.9, 79.2)
High School	86.8 ( 80.0, 91.5)	89.5 ( 83.1, 93.6)	80.5 ( 72.7, 86.6)
More than High School	94.6 ( 91.4, 96.7)	94.8 ( 91.7, 96.8)	94.5 ( 91.2, 96.6)
<b>Marital Status</b>			
Married	93.4 ( 90.0, 95.7)	95.0 ( 92.2, 96.8)	94.8 ( 91.5, 96.9)
Other	74.4 ( 68.3, 79.6)	80.3 ( 74.2, 85.2)	74.0 ( 67.9, 79.3)
<b>Medicaid Status</b>			
No	98.1 ( 95.7, 99.2)	96.5 ( 93.7, 98.1)	98.4 ( 96.1, 99.4)
Yes	76.4 ( 71.4, 80.7)	82.5 ( 77.6, 86.6)	77.1 ( 72.0, 81.4)
<b>Birthweight</b>			
VLBW (<1500 g)	80.5 ( 78.5, 82.3)	82.9 ( 80.8, 84.9)	81.2 ( 79.0, 83.2)
MLBW (1500-2499 g)	82.4 ( 78.5, 85.7)	78.0 ( 73.1, 82.3)	80.5 ( 76.0, 84.4)
NBW (2500+ g)	85.1 ( 81.5, 88.2)	89.9 ( 86.6, 92.4)	85.5 ( 81.7, 88.6)
<b>TOTAL</b>	<b>84.9 ( 81.6, 87.6)</b>	<b>88.9 ( 85.9, 91.3)</b>	<b>85.1 ( 81.7, 87.9)</b>

\*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.

\*\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

†Note: In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

## Financial Issues

### Characteristics of Women Receiving Public Assistance\*, 2006-2008

Maternal Characteristic	2006 percent (CI)**	2007 percent (CI)**	2008† percent (CI)**
<b>Race</b>			
Non-Hispanic White	17.3 ( 13.6, 21.7)	13.7 ( 10.2, 18.2)	14.2 ( 10.6, 18.9)
Non-Hispanic Black	38.1 ( 31.1, 45.5)	33.2 ( 26.0, 41.2)	25.1 ( 19.0, 32.3)
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	33.9 ( 27.7, 40.7)	32.0 ( 25.5, 39.3)	23.0 ( 17.7, 29.3)
25-34	16.6 ( 12.5, 21.7)	16.1 ( 12.1, 21.1)	14.7 ( 10.7, 19.7)
35-55	----^	----^	----^
<b>Education</b>			
Less than High School	39.1 ( 31.0, 47.8)	35.2 ( 26.7, 44.7)	25.5 ( 18.4, 34.1)
High School	26.7 ( 20.0, 34.7)	30.7 ( 23.0, 39.7)	26.9 ( 19.8, 35.3)
More than High School	14.6 ( 11.0, 19.1)	10.1 ( 7.2, 14.1)	10.5 ( 7.4, 14.6)
<b>Marital Status</b>			
Married	14.3 ( 10.7, 18.7)	11.7 ( 8.8, 15.4)	10.4 ( 7.3, 14.6)
Other	35.4 ( 29.5, 41.7)	34.3 ( 27.9, 41.3)	27.6 ( 22.3, 33.7)
<b>Medicaid Status</b>			
No	----^	----^	----^
Yes	35.4 ( 30.4, 40.7)	34.0 ( 28.5, 39.8)	27.3 ( 22.7, 32.5)
<b>Birthweight</b>			
VLBW (<1500 g)	23.5 ( 21.6, 25.6)	24.6 ( 22.3, 26.9)	27.1 ( 24.8, 29.5)
MLBW (1500-2499 g)	31.1 ( 27.0, 35.5)	31.0 ( 26.0, 36.5)	24.2 ( 20.0, 28.9)
NBW (2500+ g)	23.2 ( 19.5, 27.3)	20.2 ( 16.6, 24.3)	17.8 ( 14.5, 21.8)
<b>TOTAL</b>	23.8 ( 20.4, 27.5)	21.0 ( 17.7, 24.8)	18.5 ( 15.3, 22.1)

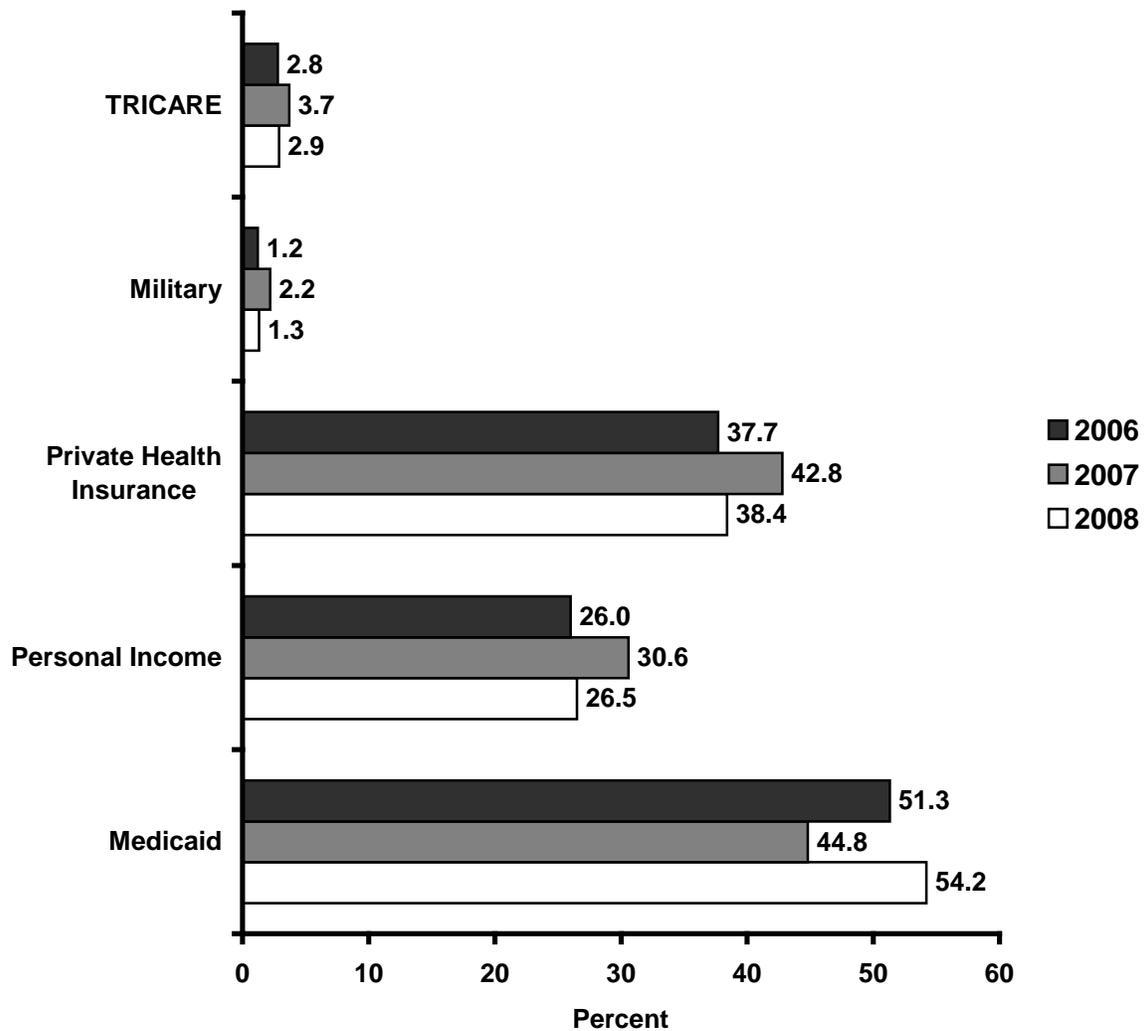
\*Public assistance is defined as any one of the following: Aid to Families with Dependent Children (AFDC), welfare, public assistance, food stamps, or Supplemental Security Income (SSI). Please note that wages and public assistance are not mutually exclusive.

\*\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

†Note: In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

Sources of Payment for Prenatal Care\*, 2006-2008

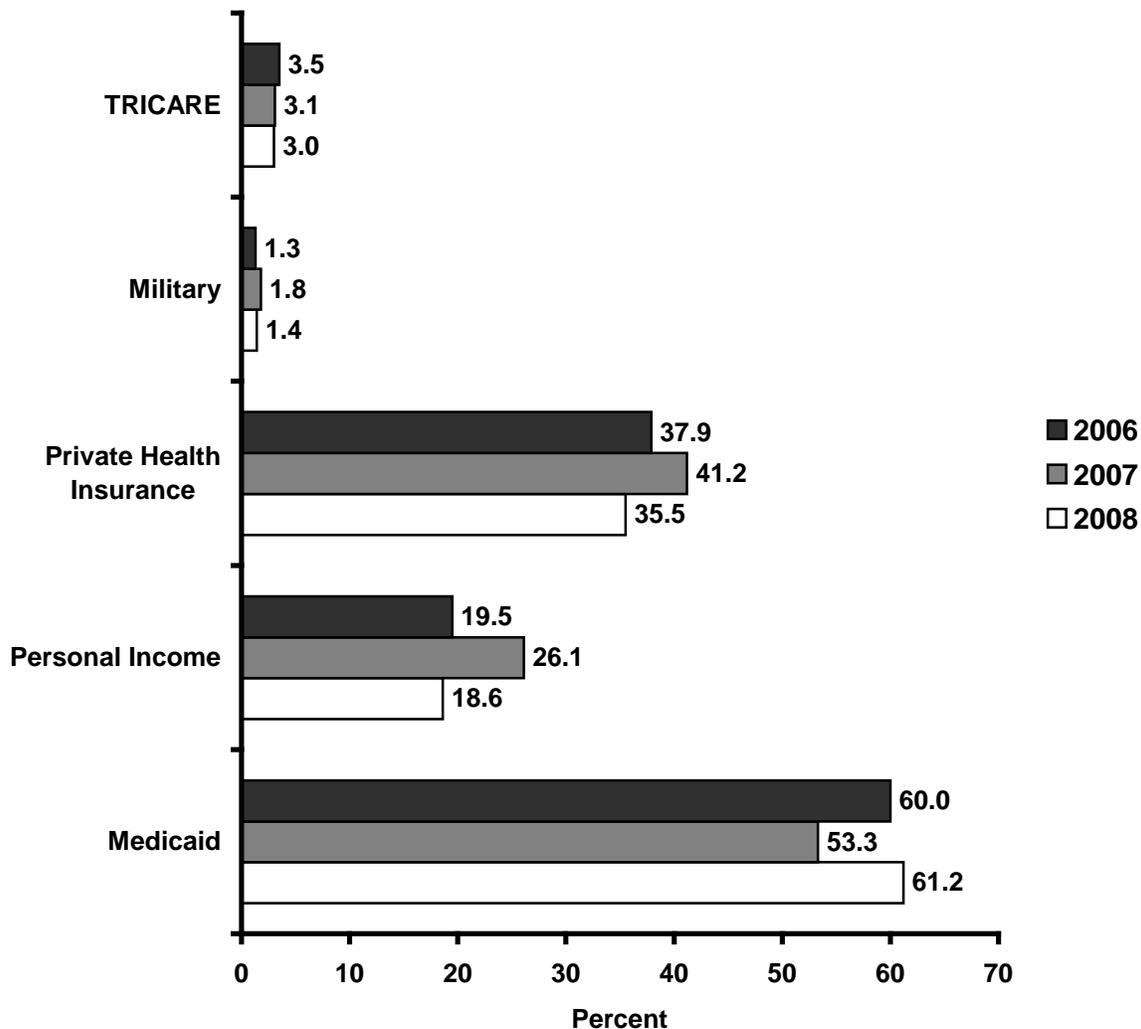


In 2008, 26.5% of women paid for all or part of their prenatal care with personal income.

The most common sources of payment for prenatal care were Medicaid and private health insurance for 2006, 2007, and 2008.

**\*Note:** Sources of payment are not mutually exclusive.

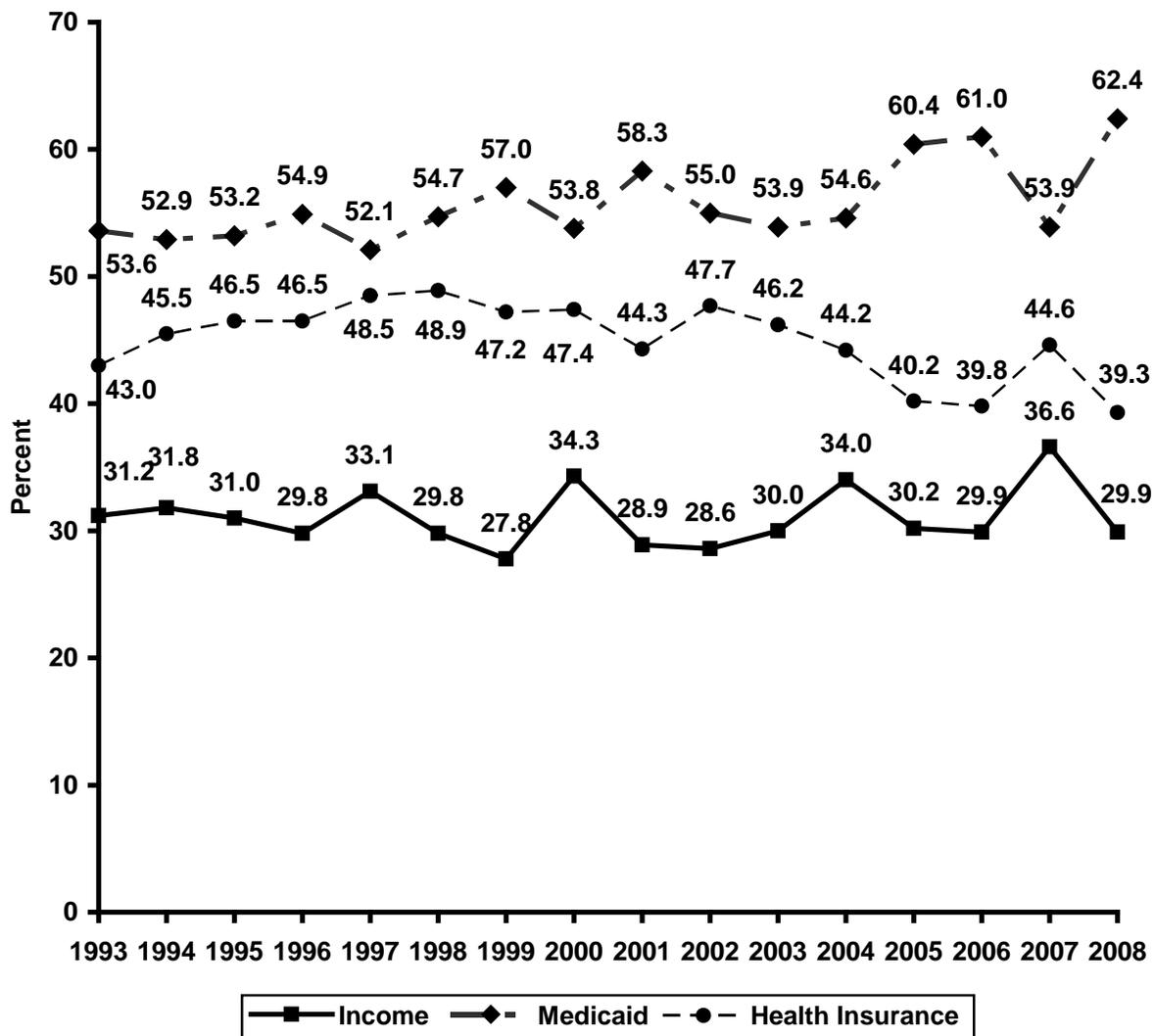
Sources of Payment for Delivery\*, 2006-2008



The most common sources of payment for delivery were Medicaid and private health insurance for 2006, 2007, and 2008.

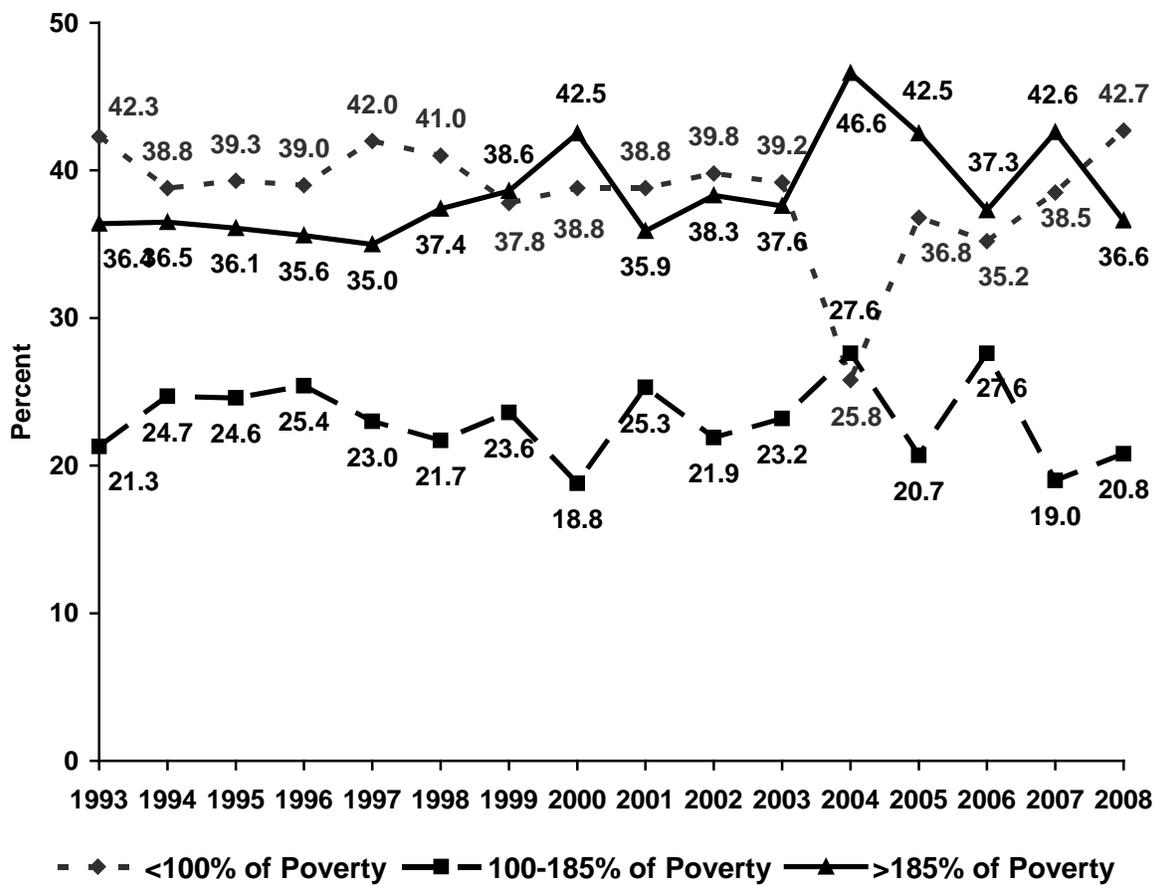
**\*Note:** Sources of payment are not mutually exclusive.

Percent of Women Who Used *Personal Income, Medicaid, or Private Health Insurance* to Pay for Prenatal Care or Delivery, 1993-2008



**Note:** Sources of payment are not mutually exclusive.

Poverty Status among Women Who Delivered a Live Birth, 1993-2008



Poverty thresholds were obtained from the Health and Human Services Federal Poverty Guidelines.<sup>3</sup> Poverty status is based on family income and family size obtained from questions 62 and 63, respectively on the South Carolina PRAMS survey (Appendix A).

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 dropped to 53.4% in 2004, but has risen to 63.4% in 2008.

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

## Financial Issues

### Characteristics of Women Living At or Below 185% of Poverty, 2006-2008

<b>Maternal Characteristic</b>	<b>2006 percent (CI)*</b>	<b>2007 percent (CI)*</b>	<b>2008** percent (CI)*</b>
<b>Race</b>			
Non-Hispanic White	46.9 ( 41.4, 52.3)	41.3 ( 35.9, 47.0)	52.0 ( 46.3, 57.7)
Non-Hispanic Black	84.4 ( 77.9, 89.2)	78.8 ( 71.3, 84.8)	78.8 ( 71.6, 84.5)
Other Race	83.5 ( 72.9, 90.5)	77.5 ( 66.4, 85.8)	79.6 ( 67.7, 87.9)
<b>Age</b>			
Less than 18	93.4 ( 73.4, 98.6)	----^	----^
18-24	80.0 ( 73.7, 85.0)	81.5 ( 74.9, 86.6)	84.3 ( 78.7, 88.7)
25-34	53.5 ( 47.4, 59.5)	41.1 ( 35.3, 47.3)	48.7 ( 42.5, 54.9)
35-55	36.9 ( 26.2, 49.1)	40.1 ( 29.5, 51.8)	43.3 ( 31.0, 56.4)
<b>Education</b>			
Less than High School	93.4 ( 86.8, 96.9)	93.8 ( 86.5, 97.2)	91.4 ( 83.8, 95.7)
High School	76.4 ( 68.5, 82.9)	79.9 ( 71.4, 86.4)	87.6 ( 80.3, 92.4)
More than High School	42.9 ( 37.4, 48.7)	33.7 ( 28.7, 39.2)	38.6 ( 33.1, 44.4)
<b>Marital Status</b>			
Married	43.8 ( 38.3, 49.4)	38.0 ( 33.0, 43.3)	42.9 ( 37.2, 48.7)
Other	88.0 ( 82.8, 91.8)	87.1 ( 81.3, 91.3)	87.7 ( 82.5, 91.4)
<b>Medicaid Status</b>			
No	22.2 ( 17.2, 28.1)	21.9 ( 17.2, 27.5)	20.3 ( 15.3, 26.4)
Yes	91.9 ( 88.4, 94.5)	89.6 ( 85.1, 92.8)	91.4 ( 87.7, 94.1)
<b>Birthweight</b>			
VLBW (<1500 g)	69.2 ( 67.0, 71.4)	67.2 ( 64.7, 69.7)	68.6 ( 66.2, 71.0)
MLBW (1500-2499 g)	73.2 ( 68.9, 77.1)	74.7 ( 69.8, 79.1)	66.3 ( 61.4, 70.9)
NBW (2500+ g)	61.7 ( 57.2, 66.1)	55.8 ( 51.1, 60.4)	63.1 ( 58.5, 67.5)
<b>TOTAL</b>	<b>62.7 ( 58.6, 66.7)</b>	<b>57.4 ( 53.2, 61.6)</b>	<b>63.4 ( 59.2, 67.5)</b>

\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

**\*\*Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

## **Medicaid Fact Sheet**

From 1993-2008:

The proportion of women on Medicaid during pregnancy remained fairly constant, but reached a high of 62.6% in 2008

The percent of Medicaid mothers receiving inadequate prenatal care decreased from 29.2% in 1993 to 16.5% in 2005, but has risen to 21.8% in 2008.

The percent of Medicaid mothers receiving adequate or adequate plus prenatal care increased from 53.2% in 1993 to 74.7% in 2005, but has fallen to 67.8% in 2008.

In 2008:

80.0% of women on Medicaid also participated in WIC.

8.6% 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 non-Hispanic black
- be less than 24 years of age
- be unmarried
- be on WIC and
- have a high school education or less.

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

88.0% of women delivering a live birth who were on Medicaid received information about breastfeeding, and 78.1% of these women received information about HIV testing.

## Special Populations – Medicaid

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### What Some South Carolina Mothers Have to Say about Medicaid:

*“I think it would be better if you didn't have to wait for approval from Medicaid to see a doctor. I was lucky mine got approved in 2 weeks. But I've known people that waited over a month to see a doctor.”*

*“It is now November and I am receiving bills that the Medicaid HMO program, Unison should have taken care of. This is a burden and stressor on a new parent with many responsibilities. If those HMO programs are not going to supply the same care as Medicaid they need to be eliminated.”*

*“I feel like a baby who is born prematurely should have Medicaid benefits, regardless of their parents' income. A premature baby comes with a lot of hospital bills, the child cannot really go to day care because of the chance of getting sick with RSV during the cold and flu season. This limits a family to one income. We all have bills. We are going to be left with a lot of bills from the hospital that insurance did not pay.”*

*“I think it is very important for women to have all the facts and resources available to them before and during pregnancy. The care before getting pregnant is just as important as care during. I was very pleased with my help from Medicaid, because in the past I never qualified and my pregnancies are always high risk. I usually have to see my OBGYN once a week. So, thanks for your help this time.”*

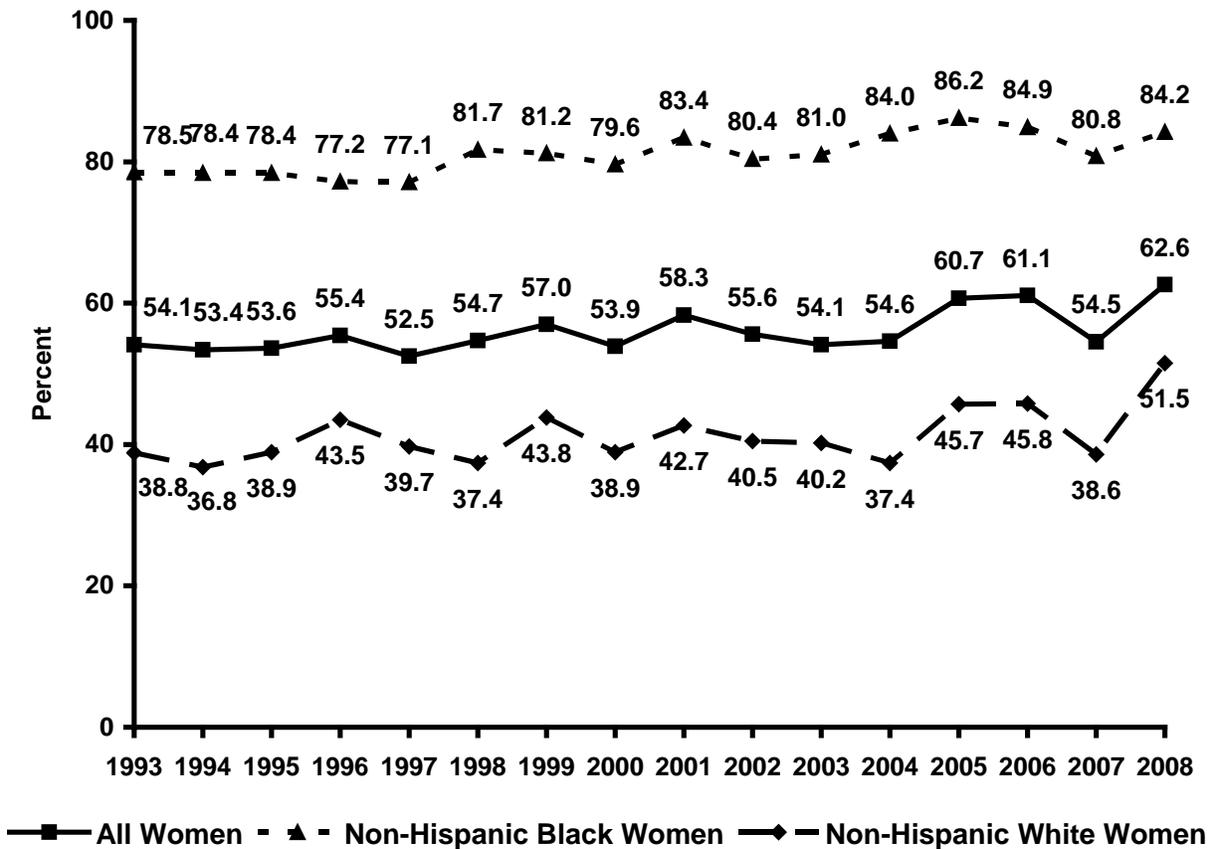
*“The process to receive Medicaid eligibility is time consuming and could be much more organized.”*

*“I think Medicaid should help more with mother's dental bills.”*

*“I think the mother should have Medicaid about 6 months after having baby because some problem don't occur to after the Medicaid has expired then it's too late to go to the doctor because u can't pay for it.”*

## Special Populations – Medicaid

### Proportion of Women on Medicaid During Pregnancy\*, 1993-2008



\*A woman was considered to be on Medicaid if **any** 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 2008, with a high of 62.6% in 2008.

Non-Hispanic black women have generally been nearly twice as likely as non-Hispanic white women to receive Medicaid.

## Special Populations – Medicaid

### Characteristics of Women on Medicaid During Pregnancy, 2006-2008

Maternal Characteristic	2006 percent (CI)*	2007 percent (CI)*	2008** percent (CI)*
<b>Race</b>			
Non-Hispanic White	45.8 ( 40.6, 51.1)	38.6 ( 33.4, 44.1)	51.5 ( 45.9, 57.0)
Non-Hispanic Black	84.9 ( 79.3, 89.3)	80.8 ( 74.0, 86.1)	84.2 ( 78.2, 88.7)
Other Race	66.9 ( 54.9, 77.0)	57.3 ( 46.0, 67.8)	60.9 ( 48.5, 72.1)
<b>Age</b>			
Less than 18	92.2 ( 75.4, 97.9)	99.6 ( 99.1, 99.8)	98.2 ( 94.3, 99.4)
18-24	82.6 ( 77.0, 87.1)	83.3 ( 77.3, 88.0)	86.0 ( 80.7, 90.1)
25-34	48.4 ( 42.6, 54.3)	36.9 ( 31.4, 42.8)	45.7 ( 39.7, 51.8)
35-55	27.7 ( 18.3, 39.6)	22.5 ( 14.5, 33.4)	32.7 ( 21.9, 45.8)
<b>Education</b>			
Less than High School	90.6 ( 84.2, 94.6)	85.8 ( 77.9, 91.2)	86.6 ( 78.8, 91.9)
High School	73.9 ( 66.2, 80.4)	76.5 ( 68.4, 83.1)	83.4 ( 75.9, 88.9)
More than High School	39.3 ( 34.0, 45.0)	30.2 ( 25.4, 35.5)	39.2 ( 33.8, 44.9)
<b>Marital Status</b>			
Married	35.7 ( 30.7, 41.1)	28.8 ( 24.4, 33.7)	35.6 ( 30.3, 41.3)
Other	92.8 ( 88.8, 95.4)	90.3 ( 85.4, 93.7)	92.7 ( 88.6, 95.4)
<b>WIC Status</b>			
No	30.5 ( 25.1, 36.6)	24.0 ( 19.2, 29.6)	28.4 ( 22.9, 34.7)
Yes	86.1 ( 81.9, 89.5)	84.5 ( 79.5, 88.4)	89.4 ( 85.2, 92.4)
<b>Birthweight</b>			
VLBW (<1500 g)	70.2 ( 68.1, 72.2)	72.4 ( 70.1, 74.6)	73.3 ( 71.1, 75.4)
MLBW (1500-2499 g)	74.1 ( 70.1, 77.7)	74.1 ( 69.4, 78.4)	68.2 ( 63.6, 72.5)
NBW (2500+ g)	59.9 ( 55.5, 64.1)	52.5 ( 48.0, 57.0)	61.9 ( 57.4, 66.2)
<b>TOTAL</b>	61.1 ( 57.2, 64.9)	54.5 ( 50.3, 58.5)	62.6 ( 58.5, 66.5)

\* 95% Confidence Interval

\*\* **Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

## Special Populations – Medicaid

### Characteristics of Women Who Had Problems Getting Medicaid During Pregnancy, 2006-2008

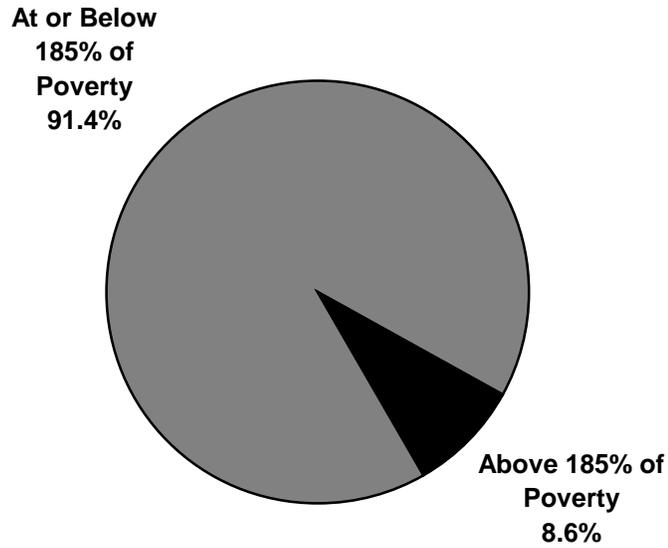
<b>Maternal Characteristic</b>	<b>2006 percent (CI)*</b>	<b>2007 percent (CI)*</b>	<b>2008** percent (CI)*</b>
<b>Race</b>			
Non-Hispanic White	----^	----^	----^
Non-Hispanic Black	10.2 ( 5.4, 18.6)	----^	----^
Other Race	----^	----^	----^
<b>Age</b>			
Less than 18	----^	----^	----^
18-24	----^	28.6 ( 20.4, 38.6)	12.6 ( 7.8, 19.7)
25-34	25.8 ( 17.4, 36.5)	20.2 ( 12.3, 31.1)	----^
35-55	----^	----^	----^
<b>Education</b>			
Less than High School	----^	----^	----^
High School	----^	----^	----^
More than High School	20.1 ( 13.2, 29.4)	14.5 ( 8.3, 24.2)	----^
<b>Marital Status</b>			
Married	32.7 ( 23.0, 44.1)	32.4 ( 23.3, 43.1)	23.0 ( 14.8, 34.0)
Other	12.9 ( 8.1, 19.9)	18.7 ( 12.0, 27.9)	9.9 ( 6.0, 15.9)
<b>WIC Status</b>			
No	31.8 ( 20.7, 45.5)	----^	----^
Yes	15.4 ( 10.4, 22.0)	21.6 ( 15.4, 29.5)	12.0 ( 7.9, 17.8)
<b>Birthweight</b>			
VLBW (<1500 g)	21.9 ( 19.3, 24.9)	20.6 ( 17.7, 23.8)	19.2 ( 16.6, 22.3)
MLBW (1500-2499 g)	----^	----^	----^
NBW (2500+ g)	----^	----^	----^
<b>TOTAL</b>	<b>19.9 ( 15.0, 25.8)</b>	<b>23.9 ( 18.3, 30.7)</b>	<b>14.1 ( 10.1, 19.3)</b>

\*95% Confidence Interval

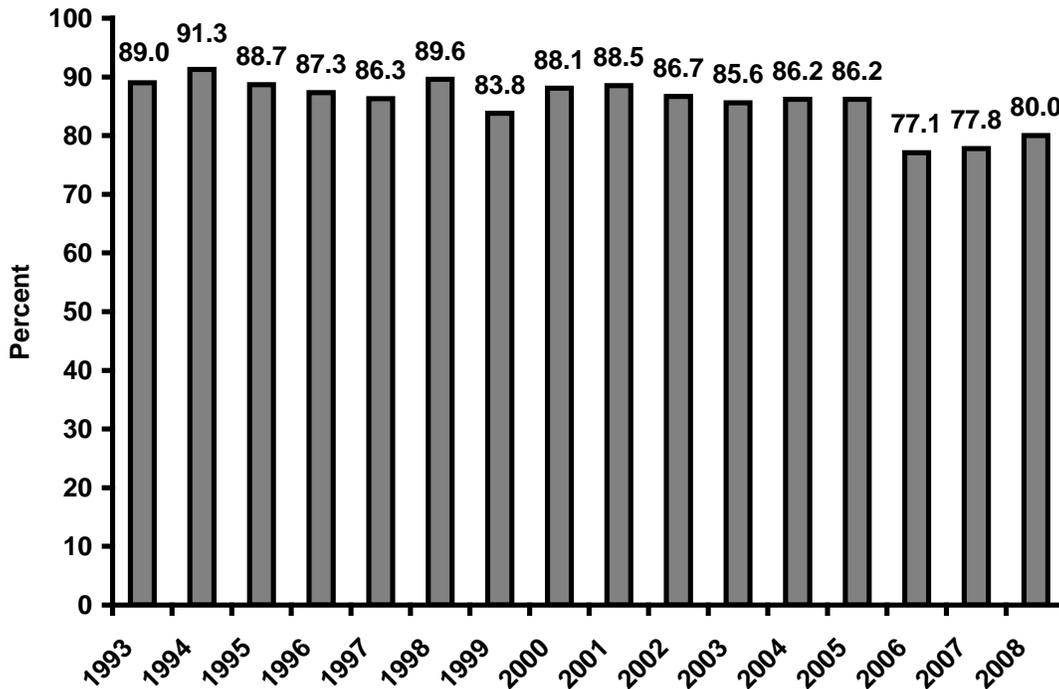
^Cell contains less than 50 respondents; data not shown

**\*\* Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

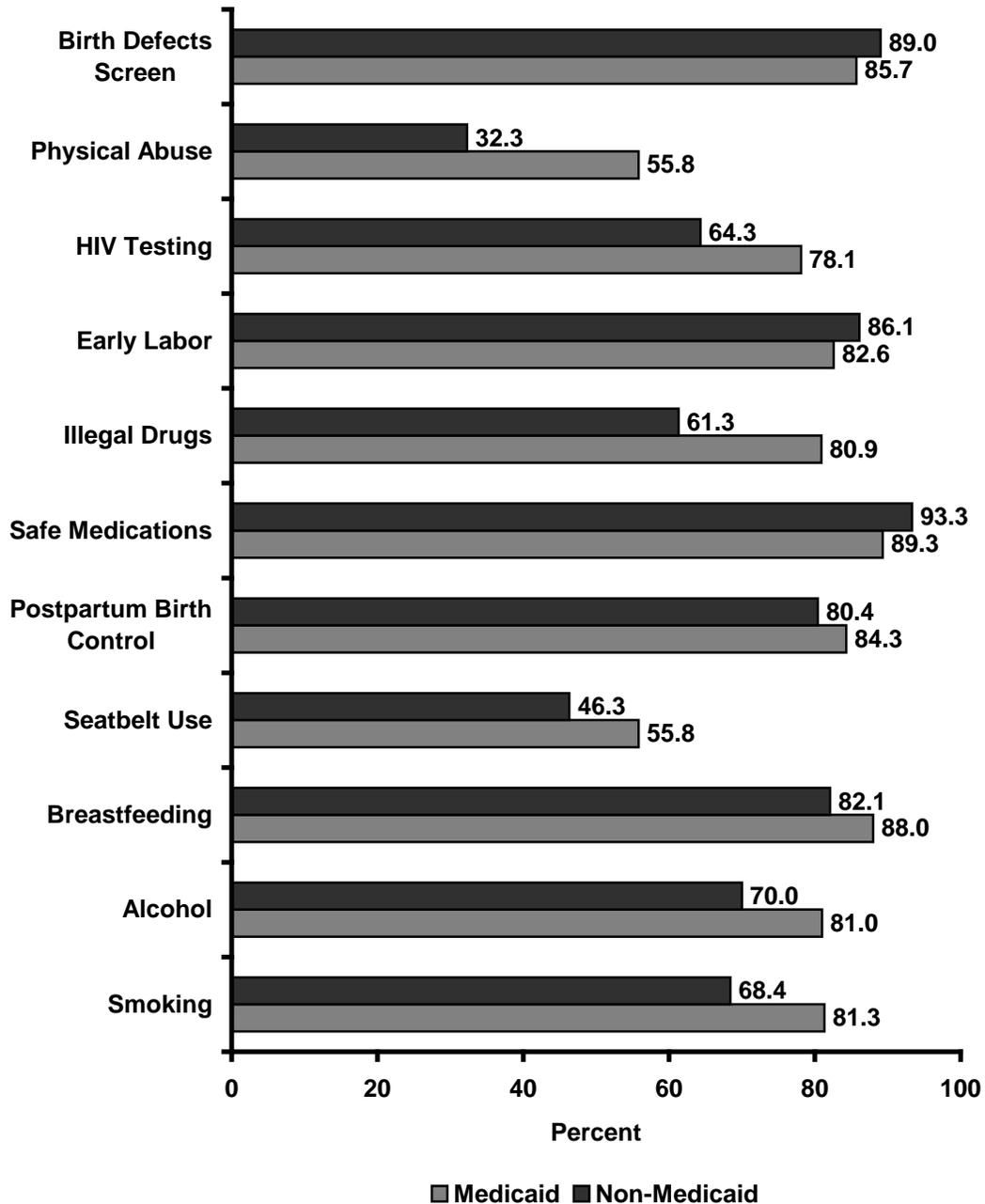
Poverty Levels among Women on Medicaid, 2008



Proportion of Women on Medicaid Who Were Also on WIC, 1993-2008



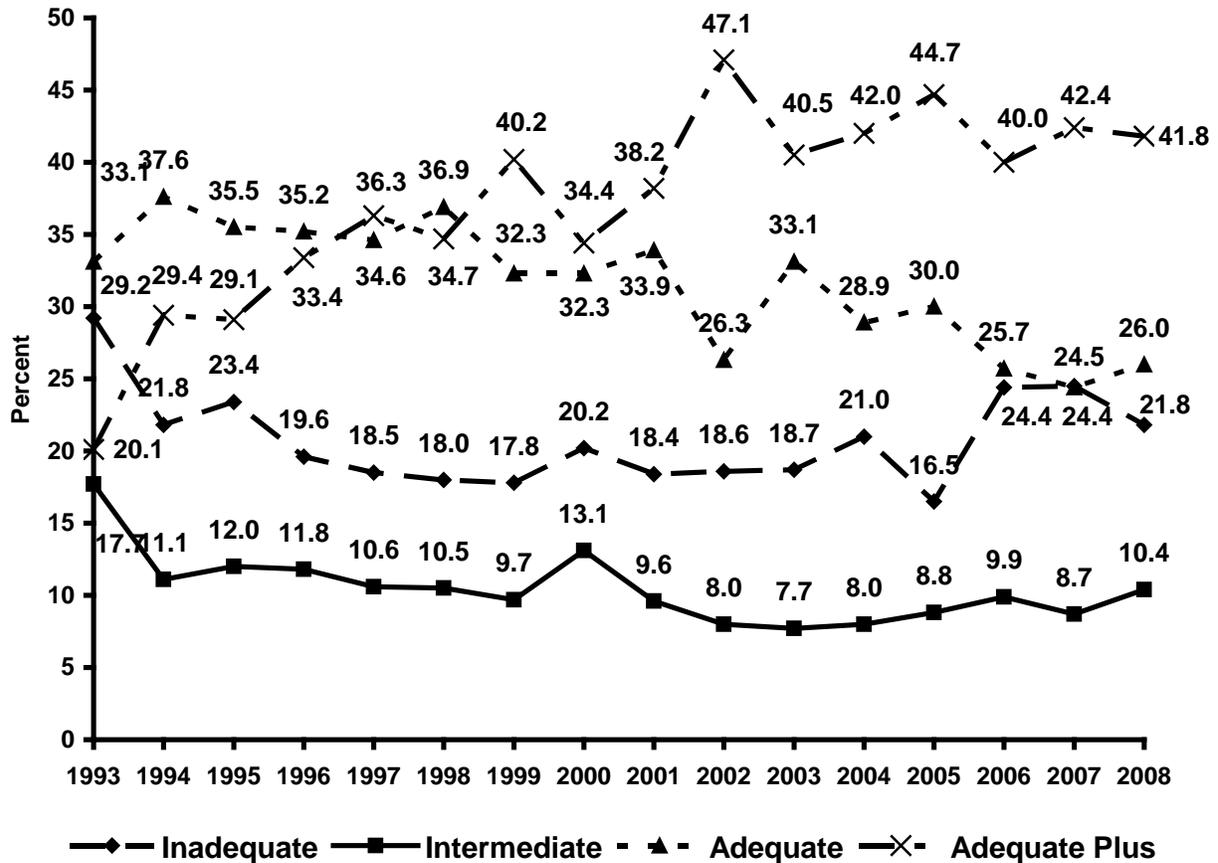
**Proportion of Medicaid Mothers Who Received Information on Important Health Issues During Prenatal Care, 2008**



In 2008, when compared to mothers not on Medicaid, a greater proportion of Medicaid mothers received information about all topics except safe medications during pregnancy, what to do if labor starts early, and birth defects screens during pregnancy.

## Special Populations – Medicaid

### Adequacy of Prenatal Care\* Among Women on Medicaid, 1993-2008



\*The Adequacy of Prenatal Care Utilization (APNCU) 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 has fallen to 67.8% in 2008.

The percent of Medicaid mothers receiving INADEQUATE prenatal care decreased from 29.2% in 1993 to 16.5% in 2005, but has risen to 21.8% in 2008.

## **WIC Fact Sheet**

During the years 1993-2008:

The proportion of women participating in 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 a low of 14.2% in 2005, but has since risen to 19.2% in 2008.

The proportion of WIC mothers who received adequate or adequate plus prenatal care increased from 56.9% in 1993 to a high of 74.6% in 2005, but has since fallen to 70.8% in 2008.

In 2008:

Women that reported being on WIC were more likely to:

- have a race/ethnicity other than non-Hispanic white
- be less than 24 years old
- be unmarried
- be on Medicaid and
- have a less than high school education.

Just below 77% of WIC mothers paid for at least some of their prenatal care and delivery with Medicaid, and 11.2% paid for at least some of their prenatal care and delivery with private health insurance.

At least 82.9% 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 what to do if labor starts early.

Just below 58% of WIC mothers received information on physical abuse by their husbands or partners.

Almost 81% of WIC mothers received information on testing for HIV.

### What Some South Carolina Mothers Have to Say about WIC:

*“I think people who choose to be pregnant should really get on Medicaid and on Wic as soon as they find out. Find the right doctor. I had two healthy baby boys. They were born 3 days before my due date. They both were very healthy and a very good weight. I took it easy and did not do any drugs and did not smoke. I have been pregnant 6 times and have never had any bad problems. My babies are all very healthy and have no problems. Thanks.”*

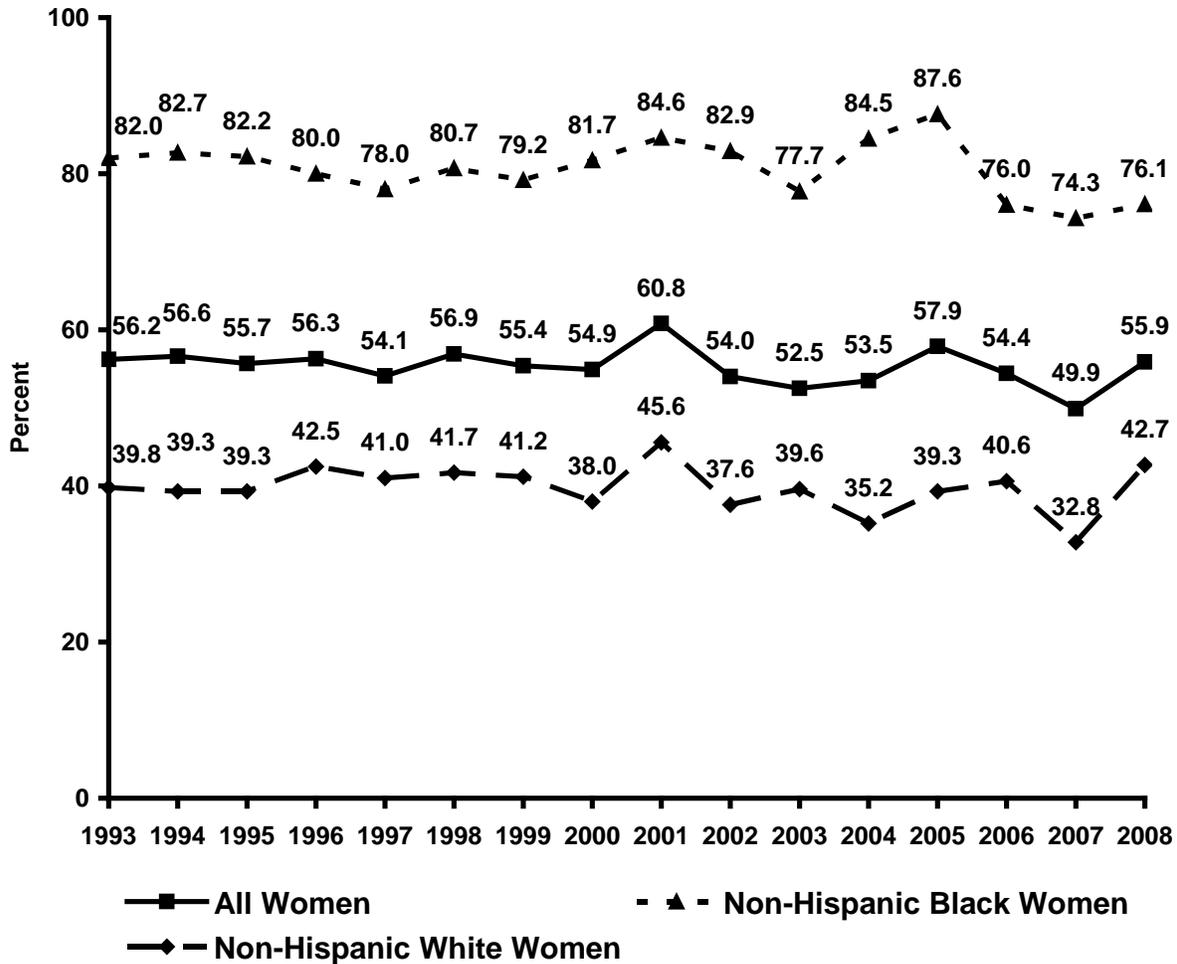
*“WIC should be accessed for households per family not based on income. More programs for middle level income families. Low income families aren't the only ones who have problems and need government assistance.”*

*“I wish everyone that felt they needed a little bit of help with providing for their family could get WIC. Me and my husband work 40 + hours a week to pay for our house, car and daycare. Just using it to buy formula and a small amount of food would make it a lot easier on our family. It just doesn't seem fair that hard working parents can't get WIC and someone who doesn't work can.”*

*“My new baby now requires a special formula ([brand name omitted]) that costs \$50 per can & lasts around 2 days due to a severe protein allergy that caused bleeding in his intestines. My husband makes too much money for WIC & our insurance refuse to pay for the medically necessary formula. We are having to get help from family & friends.”*

## Special Populations – WIC

### Proportion of Women on WIC\*, 1993-2008



\* WIC is the Special Supplemental Nutrition Program for Women, Infants, and Children. For more information about South Carolina WIC visit [www.scdhec.gov/health/mch/wic](http://www.scdhec.gov/health/mch/wic).

The percent of women on WIC during pregnancy remained fairly steady from 52.5% to 60.8% during the years 1993 through 2008, dropping below 50% only in 2007 before increasing to 55.9% in 2008.

In general, non-Hispanic black women were nearly twice as likely to be on WIC as non-Hispanic white women for the years 1993-2008.

## Special Populations – WIC

### Characteristics of Women Who Received WIC Services, 2006-2008

<b>Maternal Characteristic</b>	<b>2006 percent (CI)*</b>	<b>2007 percent (CI)*</b>	<b>2008** percent (CI)*</b>
<b>Race</b>			
Non-Hispanic White	40.6 ( 35.4, 45.9)	32.8 ( 27.8, 38.3)	42.7 ( 37.2, 48.5)
Non-Hispanic Black	76.0 ( 69.0, 81.9)	74.3 ( 66.6, 80.7)	76.1 ( 68.9, 82.1)
Other Race	60.0 ( 47.5, 71.2)	60.0 ( 48.7, 70.4)	66.2 ( 53.9, 76.7)
<b>Age</b>			
Less than 18	80.9 ( 61.4, 91.8)	98.1 ( 95.3, 99.3)	----^
18-24	73.9 ( 67.4, 79.6)	71.6 ( 64.4, 77.8)	75.6 ( 69.1, 81.1)
25-34	42.4 ( 36.6, 48.4)	35.6 ( 30.1, 41.6)	41.7 ( 35.7, 47.9)
35-55	27.9 ( 18.5, 39.9)	25.2 ( 16.6, 36.3)	33.1 ( 22.1, 46.4)
<b>Education</b>			
Less than High School	75.9 ( 67.4, 82.8)	79.7 ( 70.8, 86.4)	80.0 ( 71.6, 86.4)
High School	71.2 ( 63.1, 78.1)	69.6 ( 60.9, 77.2)	70.3 ( 61.5, 77.8)
More than High School	35.0 ( 29.9, 40.6)	28.1 ( 23.4, 33.3)	35.9 ( 30.6, 41.6)
<b>Marital Status</b>			
Married	36.4 ( 31.3, 41.8)	28.9 ( 24.5, 33.9)	33.4 ( 28.2, 39.1)
Other	76.6 ( 70.5, 81.8)	79.3 ( 72.9, 84.5)	81.1 ( 75.4, 85.7)
<b>Medicaid Status</b>			
No	19.3 ( 14.7, 24.8)	16.9 ( 12.7, 22.1)	15.9 ( 11.4, 21.7)
Yes	77.1 ( 72.1, 81.4)	77.8 ( 72.4, 82.4)	79.9 ( 75.0, 84.1)
<b>Birthweight</b>			
VLBW (<1500 g)	59.6 ( 57.3, 61.9)	61.2 ( 58.6, 63.7)	58.8 ( 56.3, 61.3)
MLBW (1500-2499 g)	67.7 ( 63.3, 71.8)	64.7 ( 59.2, 69.8)	62.3 ( 57.4, 66.9)
NBW (2500+ g)	53.3 ( 48.8, 57.7)	48.5 ( 44.0, 53.1)	55.4 ( 50.7, 59.9)
<b>TOTAL</b>	<b>54.4 ( 50.3, 58.5)</b>	<b>49.9 ( 45.7, 54.1)</b>	<b>55.9 ( 51.7, 60.1)</b>

\*95% Confidence Interval

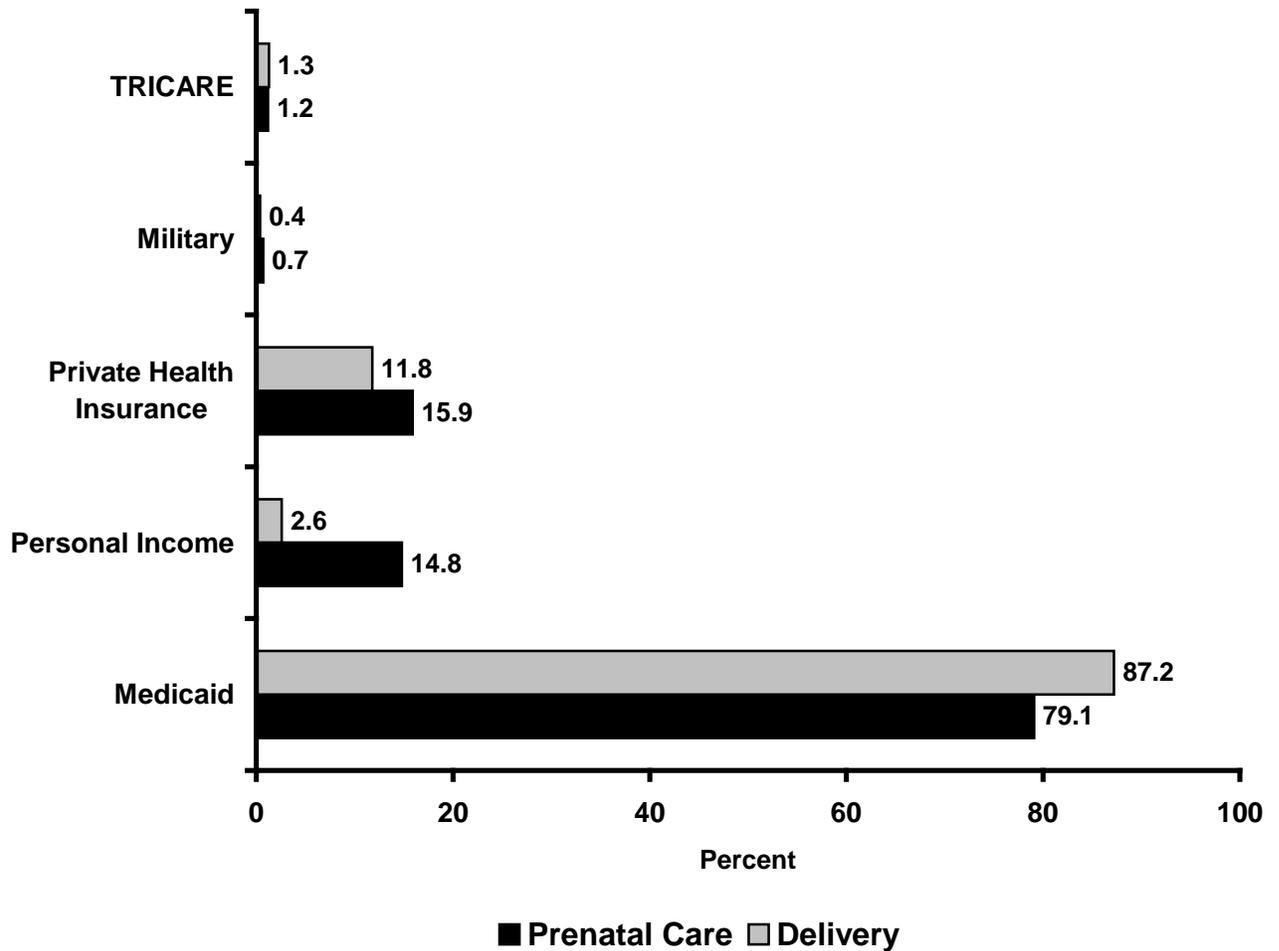
^Cell contains less than 50 respondents; data not shown

**\*\* Note:** In 2008 the SC PRAMS response rate fell short of the 65% rate that PRAMS has regarded as the epidemiologically valid threshold. Analyses specific to 2008 may result in potentially biased estimates and should be interpreted with caution.

## Special Populations – WIC

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### Source of Payment\* for Prenatal Care and Delivery for Mothers on WIC, 2008

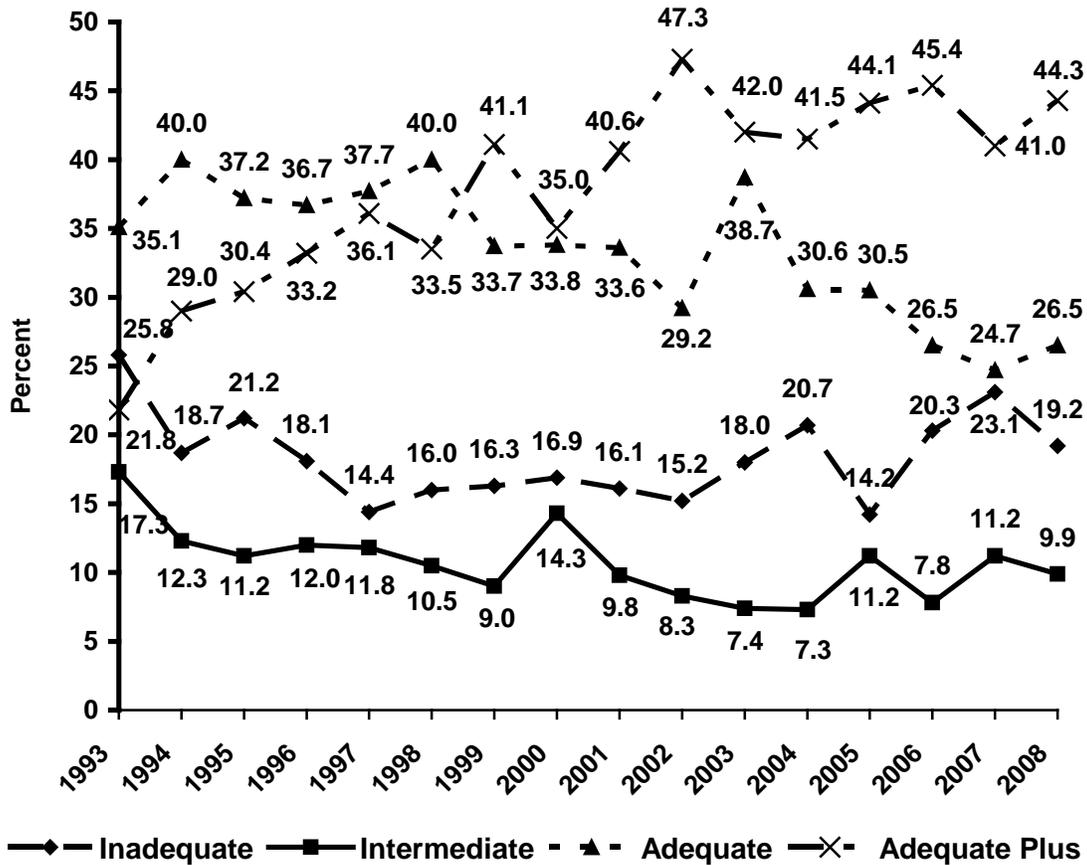


In 2008, 76.9% of WIC mothers paid for their prenatal care visits and delivery with Medicaid.

Fewer than 15% of WIC mothers paid for some prenatal care with personal income in 2008, while 2.6% used personal income to pay for at least some of their delivery costs.

**\*Note:** Sources of payment are not mutually exclusive.

Adequacy of Prenatal Care\* Among WIC Women, 1993-2008

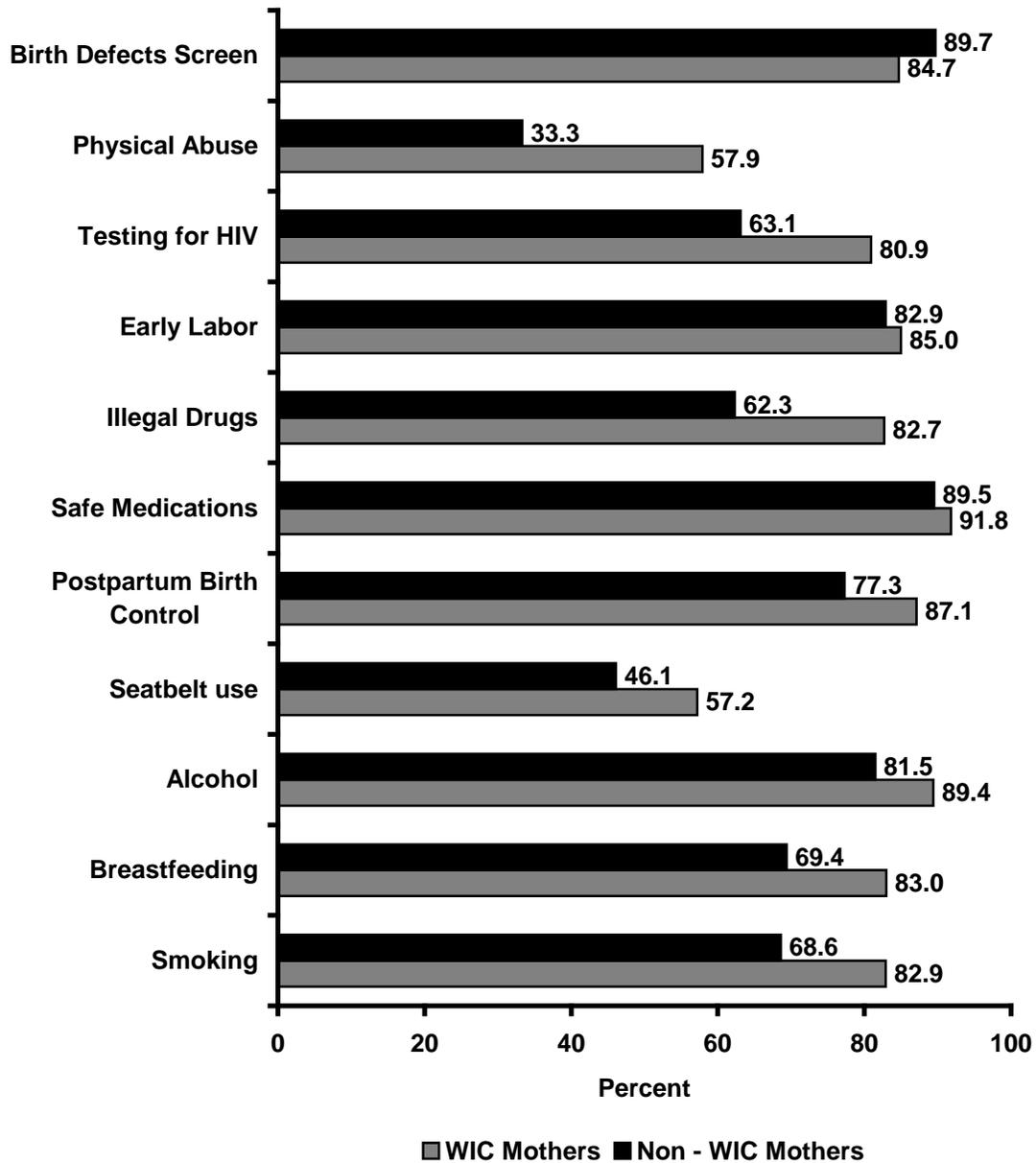


\*The Adequacy of Prenatal Care Utilization (APNCU) Index was used to measure adequacy of prenatal care. Categories are based on month of first prenatal care visit and the number of prenatal care visits until delivery.

The percent of WIC mothers receiving ADEQUATE or ADEQUATE PLUS prenatal care increased from 56.9% in 1993 to 70.8% in 2008.

The percent of WIC mothers receiving INADEQUATE prenatal care decreased from 25.8% in 1993 to a low of 14.2% in 2005, but has since risen to 19.2% in 2008.

**Proportion of Mothers Who Received Information on Important Health Issues During Prenatal Care by WIC Status, 2008**



When compared to non-WIC mothers, a greater proportion of WIC mothers received information during prenatal care on all topics except birth defects screenings in 2008.

## **Teenage Mothers Fact Sheet**

From 1993-2008:

The percent of live births to teenagers (ages 15-17) decreased from 7.4% in 1993 to 3.4% in 2008.

The proportion of unintended births among teenagers has fluctuated around 80% since 1993, reaching 88.9% in 2008.

The proportion of teen mothers receiving inadequate prenatal care decreased from 34.2% in 1993 to 19.8% in 2008.

The proportion of teen mothers receiving adequate or adequate plus prenatal care increased from 50.0% in 1993 to 72.6% in 2008.

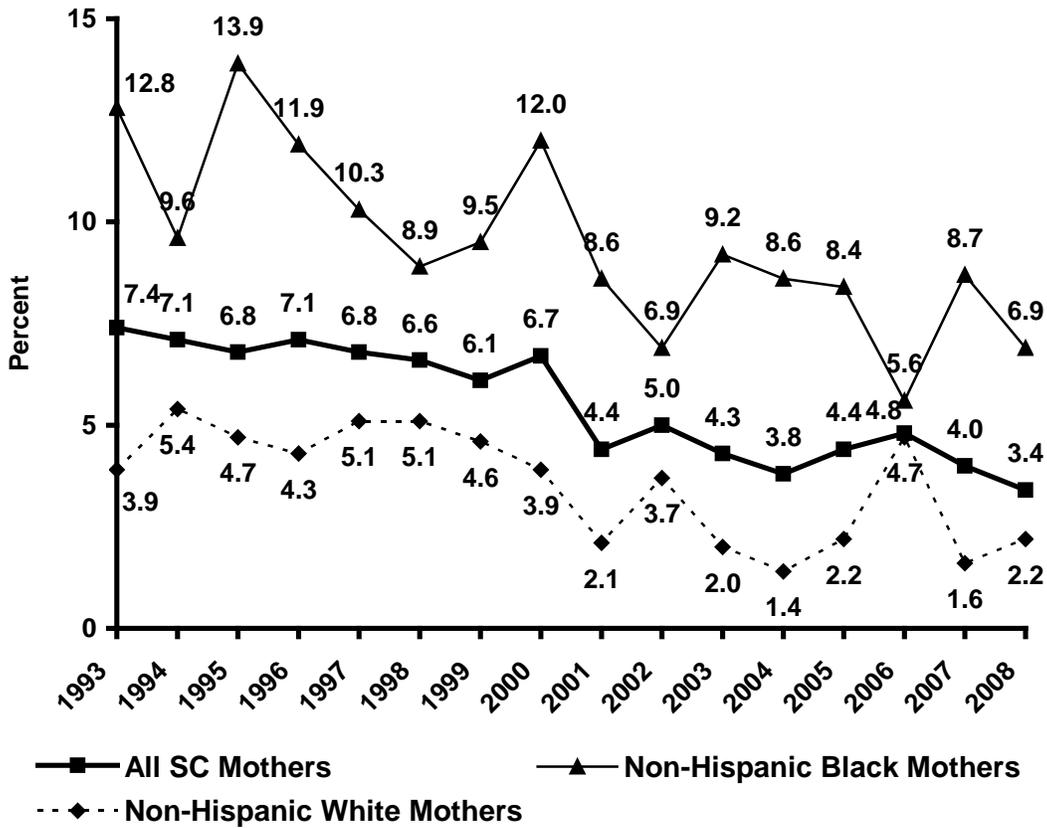
From 2006-2008:

Teen mothers (ages 15-17) were more likely to deliver low birth weight (<2,500 grams) infants than adult mothers (18 or over).

Teenage mothers were more likely to be:  
non-Hispanic black and  
on WIC.

## Special Populations - Teenagers (Ages 15-17)

### Percent of Births to Teenage Mothers in SC, 1993-2008



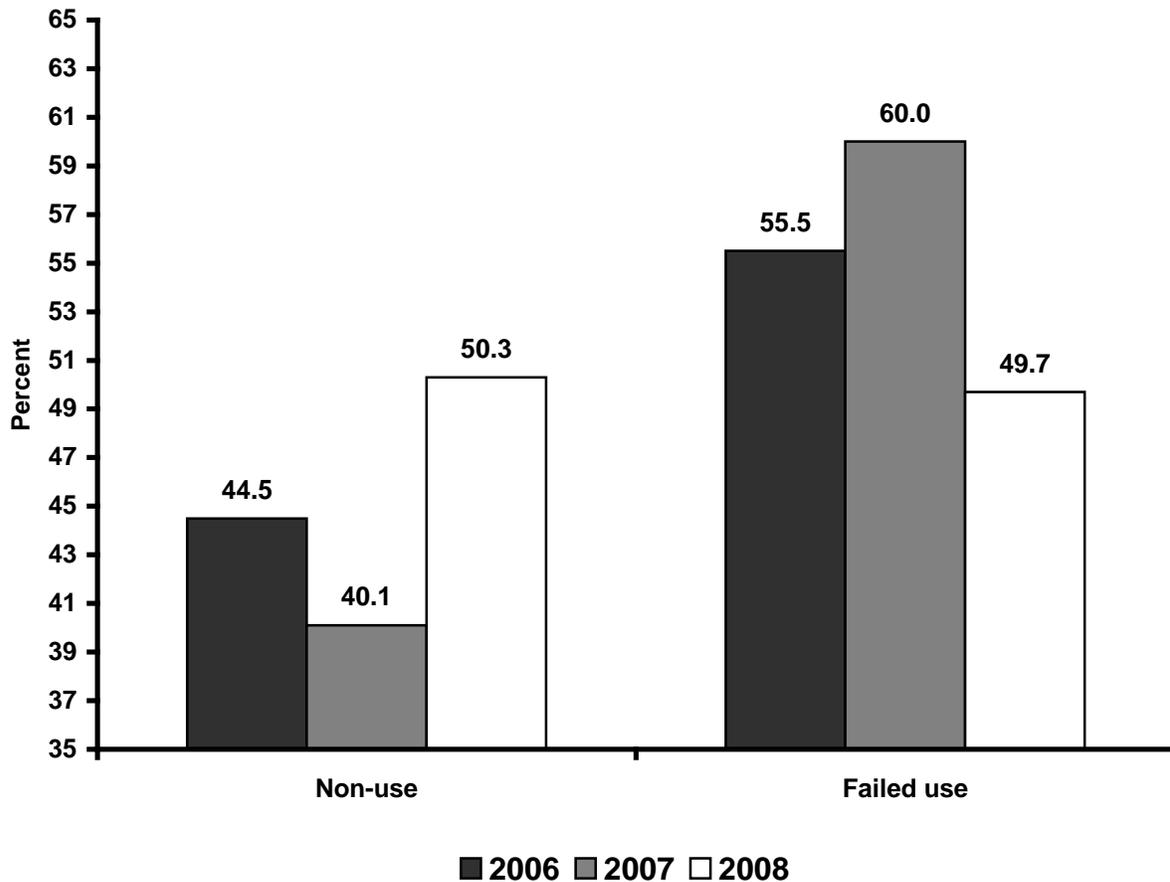
Of all live births in South Carolina in 2008, 3.4% were to teenagers (ages 15-17).

Just under 17% of all mothers who delivered live births in 2008 got pregnant for the first time as a teenager (less than 18 years of age).

## Special Populations - Teenagers (Ages 15-17)

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### Contraceptive Behaviors Among Teenage Mothers, 2006-2008



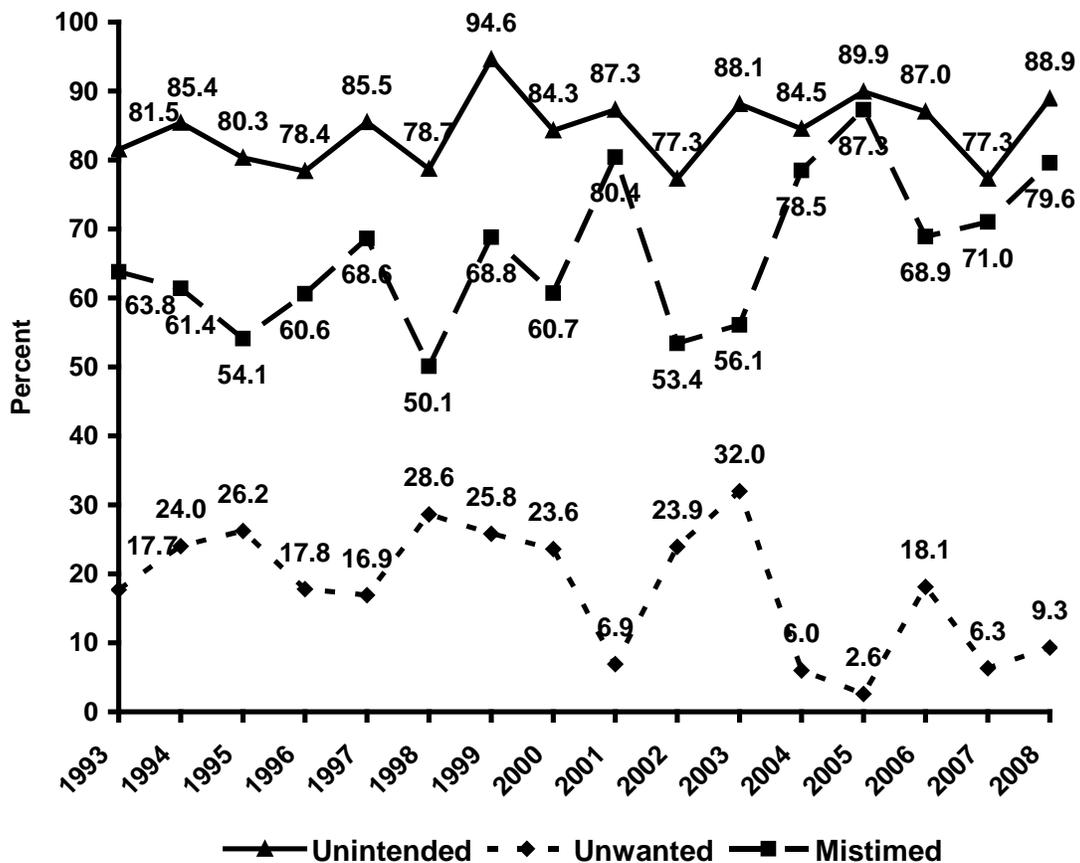
**Definitions:**

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, 1993-2008



#### Definitions:

Intended pregnancies: those wanted then or sooner.

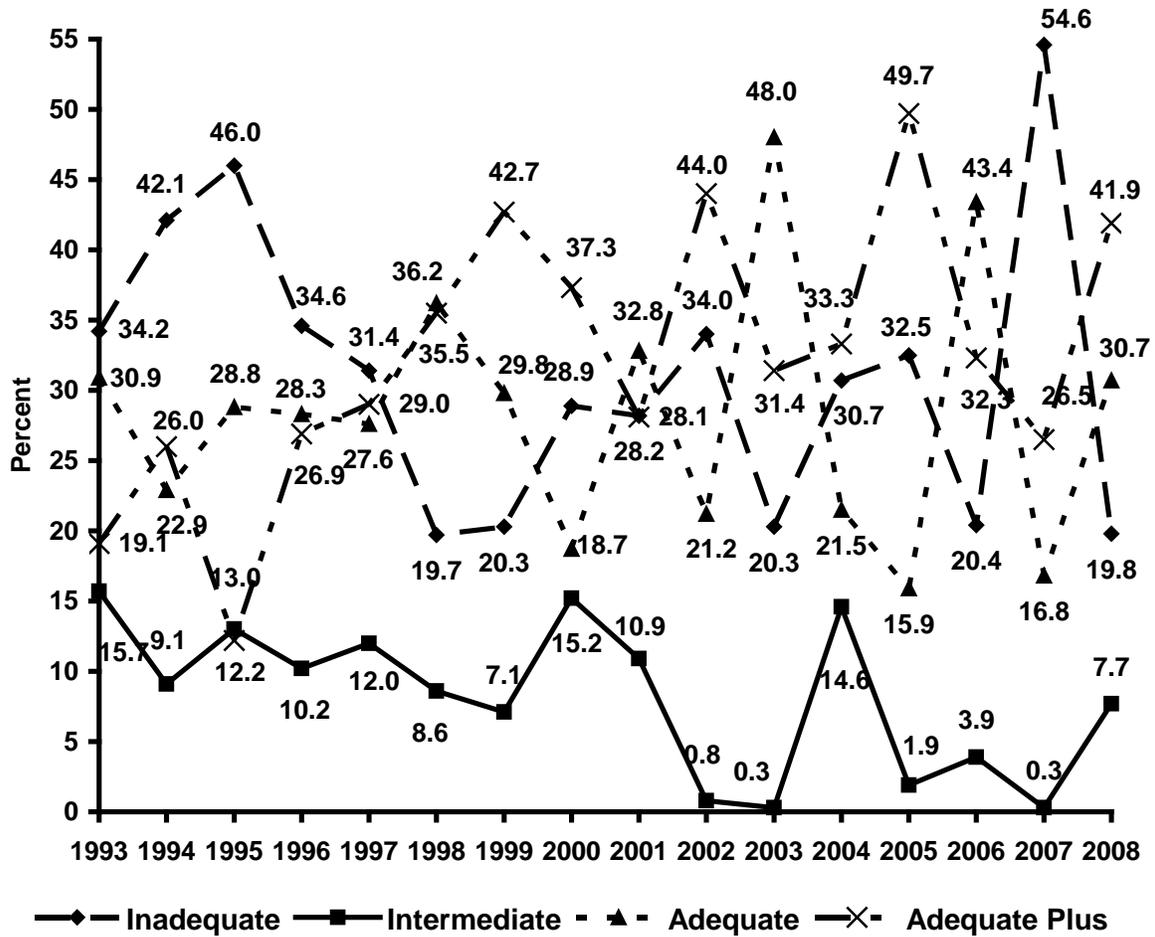
Unintended pregnancies: those which were unwanted (did not want then or anytime in the future) or mistimed (wanted to be pregnant later).

The proportion of teenage mothers that reported UNINTENDED pregnancies has remained fairly steady since 1993, reaching 88.9% in 2008.

The percent of live births to teenage mothers that were UNWANTED has decreased from a high of 32.0% in 2003 to 9.3% in 2008.

## Special Populations - Teenagers (Ages 15-17)

### Adequacy of Prenatal Care\* Among Teenage Mothers, 1993-2008



\*The Adequacy of Prenatal Care Utilization (APNCU) 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.

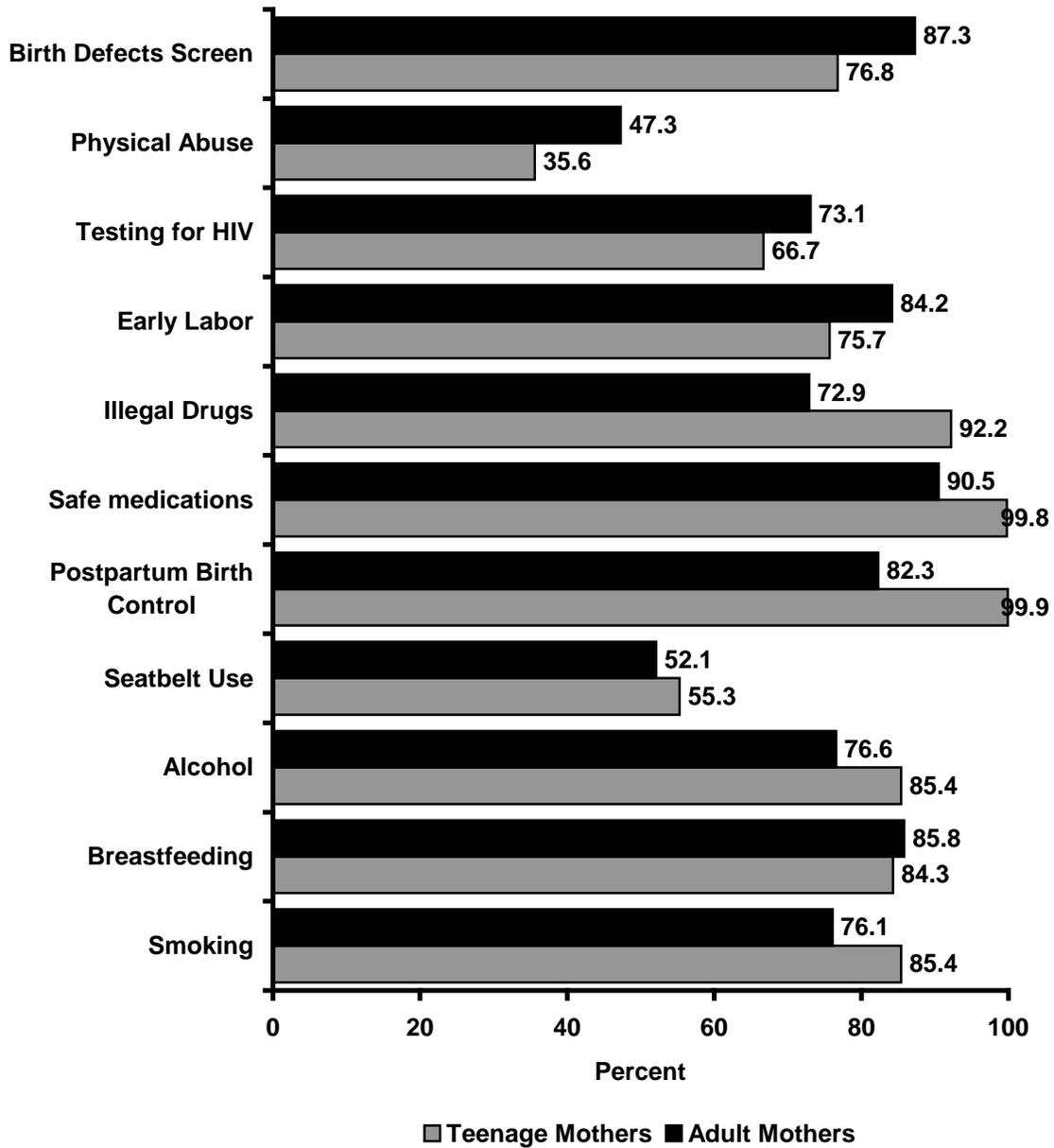
The percent of teenage mothers receiving ADEQUATE or ADEQUATE PLUS prenatal care increased from 50.0% in 1993 to 72.6% in 2008.

The percent of teenage mothers receiving INADEQUATE prenatal care decreased from 34.2% in 1993 to 19.8% in 2008.

## Special Populations - Teenagers (Ages 15-17)

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### Proportion of Teenage Mothers Who Received Information on Important Health Issues During Prenatal Care, 2008



## Special Populations - Teenagers (Ages 15-17)

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### Characteristics of Teenage Mothers, 2006-2008

<b>Maternal Characteristic</b>	<b>2006-2008 percent (CI)*</b>
<b>Race</b>	
Non-Hispanic White	2.9 ( 2.0, 4.2 )
Non-Hispanic Black	7.1 ( 5.1, 9.7)
Other Race	----^
<b>WIC Status</b>	
On WIC during pregnancy	6.6 ( 5.1, 8.4 )
Not on WIC	1.2 ( 0.6, 2.3 )
<b>Medicaid Status</b>	
No	----^
Yes	6.6 ( 5.1, 8.3 )
<b>Birthweight</b>	
VLBW (<1500 g)	6.3 ( 5.6, 7.1 )
MLBW (1500-2499 g)	5.6 ( 4.3, 7.1 )
NBW (2500+ g)	3.9 ( 3.0, 5.1 )
<b>TOTAL</b>	<b>4.0 ( 3.2, 5.1 )</b>

\*95% Confidence Interval

^Cell contains less than 50 respondents; data not shown

## Reference and Resources

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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. Kotelchuck M. An evaluation of the Kessner Adequacy of Prenatal Care Index and a proposed Adequacy of Prenatal Care Utilization Index. *American Journal of Public Health*. 1994;84:1314-1420.
3. Health and Human Services, Federal Poverty Guidelines. <http://aspe.hhs.gov/poverty>.
4. South Carolina Vital and Morbidity Statistics, 2007, South Carolina Department of Health and Environmental Control, Office of Public Health Statistics and Information Systems, Division of Biostatistics, July 2009.

## **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; border: 1px solid black;" type="text"/> _____ Month	<input style="width: 50px; height: 30px; border: 1px solid black;" type="text"/> _____ Day	<input style="width: 50px; height: 30px; border: 1px solid black;" type="text"/> _____ Year
--	--	---

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

<input style="width: 50px; height: 30px; border: 1px solid black;" type="text"/> _____ Month	<input style="width: 50px; height: 30px; border: 1px solid black;" type="text"/> _____ Day	<input style="width: 50px; height: 30px; border: 1px solid black;" 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  Yes

**Go to Question 66**

**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—**

- |  | <b>No</b> | <b>Yes</b> |
|--|-----------|------------|
| 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 are 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 65%. In 2008, 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)	56%
Normal birthweight ( $\geq$ 2500 grams)	59%
Overall	59%

The overall weighted response rate for 2008 South Carolina PRAMS data is 59%. Because this response rate is below the 65% threshold, *any results obtained using 2008 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.”<sup>1</sup>

### *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, among other procedures in other statistical analysis packages. SC PRAMS usually conducts analyses using SAS-callable SUDAAN.

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<sup>1</sup> Guidelines for State Analyses of PRAMS Data.  
[http://www2a.cdc.gov/prams/analysisdocs/guidelines/Guidelines\\_for\\_State\\_Analysis.doc](http://www2a.cdc.gov/prams/analysisdocs/guidelines/Guidelines_for_State_Analysis.doc). Accessed 03/03/2008.



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