

Special Delivery from SC PRAMS

Unintended Pregnancy Among Adult Women who had a Live Birth, 1993-1997

What is SC PRAMS?

The information for this newsletter was taken from the South Carolina Pregnancy Risk Assessment Monitoring System (SC PRAMS). SC PRAMS is an ongoing survey that obtains information from new mothers four to six months after delivery. Selected mothers are mailed a survey up to three times. Telephone interviewers attempt to reach the mothers who did not respond to the mail survey.

About 2,100 mothers are randomly sampled from the state's live birth registry each year. Low birth weight infants (less than 5 ½ pounds at birth) are over-sampled because we need to learn more about high-risk mothers. After statistical weights are applied, inferences can be made about the health of mothers and babies in SC.

The data presented in this newsletter reflect live births to SC mothers occurring in SC between the years of 1993-1997. The overall response rate for these five years was 71% (10,221 out of 14,347 mothers responded).

Background

Unintended pregnancy (a pregnancy that is unwanted or wanted later) is a major problem in South Carolina (SC). Between the years of 1993-1997 about one-half of all pregnancies in our state which resulted in live births were **unintended**, and of those that were unintended, over one-quarter were **unwanted** (figures 1 and 2). The Healthy People 2000 Objective calls to reduce the percentage of unintended pregnancies to no more than 30 percent of all pregnancies¹. SC is still far from reaching this goal. In 1997, 50 percent of all pregnancies resulting in a live birth were unintended.

The prevalence of unintended pregnancy is higher in certain subgroups of the population, such as teenagers, women over 40 years old, and women with low income². Unintended pregnancies are often associated with maternal behavioral risks, such as late initiation of prenatal care, poor nutrition, smoking, alcohol use, and drug use during pregnancy, which often lead to poor birth outcomes³. This report describes unintended pregnancy among adults in SC between the years of 1993-1997.

Methods

PRAMS data from 1993-1997 were used to assess unintended pregnancy *among adult women* (over 18 years of age when they had their baby) delivering live infants in SC. Teenage mothers (18 or younger when they had their baby) were excluded from the analysis in order to focus on this problem in the adult population. Women were divided into three intention categories based on their response to question 5 on the PRAMS Survey, "Thinking back to just before you got pregnant, how did you feel about becoming pregnant?" Those who replied "I wanted to be pregnant sooner" or "I wanted to be pregnant then" were placed in the *intended* category. Those who answered "I wanted to be pregnant later" were placed in the *mistimed* group. Those who answered "I didn't want to be pregnant then or at any time in the future" were placed in the *unwanted* group.

A logistic regression analysis was performed to determine the significant correlates of unwanted and mistimed pregnancies in comparison to intended pregnancies. Characteristics in the model were maternal race, maternal education, marital status, prenatal care, drinking during pregnancy, smoking during pregnancy, partner abuse, Medicaid status, birth weight and breast-feeding.

Results

There were 7,392 adult women included in this analysis (representing 204,666 women). Table 1 shows pregnancy intention by maternal characteristics. Forty-five percent of adult mothers reported unintended pregnancies between the years of 1993 and 1997. A greater proportion of adult mothers who were black, unmarried, had a less than high school education, received inadequate prenatal care, and were on Medicaid during pregnancy, experienced mistimed or unwanted pregnancies in comparison to women without these characteristics.

Unwanted pregnancies (not wanted then or at any time in the future) are of much greater concern than those which are simply wanted at a later time. An unwanted pregnancy may lead to improper care, not only during the pregnancy, but after the child is born. Unadjusted for other factors, women who drank were almost *three times* more likely to report an unwanted pregnancy than women who did not drink during pregnancy; women who were abused by their husbands or partners during pregnancy were almost *twice* as likely to report an unwanted pregnancy in comparison to women who were not abused during pregnancy; and women who were on Medicaid during pregnancy were also almost *three times* more likely to report an unwanted pregnancy than those who were not on Medicaid during pregnancy.

Table 2 shows the characteristics of adult mothers within each intention category. This table differs from table 1 because it shows what characteristics are most common to women within each intention group. For example, from table 2 one can see that 73.3 percent of adult women with unwanted pregnancies did not breast-feed or breast-fed for less than one week. Also, it is apparent that 71.5 percent of adult mothers with unwanted pregnancies were on Medicaid during pregnancy, 19.9 percent smoked during pregnancy, and 25.5 percent received inadequate prenatal care. There is also some good news from this table. Almost all of the adult women who had unwanted pregnancies were using some form of birth control post-partum (93.4%).

Table 3 displays the significant correlates of unwanted and mistimed pregnancies, adjusted for all other factors in the table. An odds ratio greater than one indicates that women with unwanted or mistimed pregnancies were more likely to experience that behavior or possess that characteristic. For example, mothers who had unwanted pregnancies were 3.3 times *more* likely to be unmarried when compared to mothers who had intended pregnancies.

In comparison to mothers who had intended pregnancies, mothers who had *unwanted* pregnancies were more likely to be black (OR=2.3, 95% CI=1.7-3.1), to be unmarried (OR=3.3, 95% CI=2.4-4.4), to be on Medicaid during pregnancy (OR=1.7, 95% CI=1.3-2.3), to receive inadequate

prenatal care (OR=3.0, 95%CI=2.2-4.3), to drink during pregnancy (OR=2.3, 95% CI=1.1-5.2), and to smoke during pregnancy (OR=1.9, 95% CI=1.3-2.6). In comparison to women who had intended pregnancies, mothers who had unwanted pregnancies were less likely to breast-feed for a period of one week or more (OR=0.7, 95% CI=0.6-0.9).

In comparison to mothers who experienced intended pregnancies, mothers with *mistimed* pregnancies were more likely to be black (OR=1.3, 95% CI=1.1-1.6), to be unmarried (OR=2.6, 95% CI=2.1-3.2), to be on Medicaid during pregnancy (OR=2.5, 95% CI=2.0-3.0), and to receive inadequate prenatal care (OR=2.0, 95%CI=1.5-2.6).

Conclusion

It is evident that unintended pregnancy continues to be a problem in SC. Of particular concern are the children of unwanted pregnancies. In 1997, almost 12 percent of pregnancies which resulted in live births were unwanted pregnancies. This is a shocking reality, considering that many pregnancies which are unwanted do not result in a live birth due to abortions, miscarriages, etc. Whether the pregnancy is unwanted or wanted at a later time, the solution to this problem remains the same: abstinence or proper birth control use until the woman is ready to have a child.

As seen in Figure 3, over half of mothers with unwanted and mistimed pregnancies were NOT using birth control when they got pregnant. This is a statistic that needs to change. In SC, strong efforts are being put forth to reduce the rate of unintended pregnancy by improving access, knowledge, and proper use of birth control among sexually active women who do not wish to become pregnant.

One example of how SC is working on this problem is the SC Medicaid family planning initiative. Many women do not use birth control methods effectively because they cannot afford them, or do not know how to properly use them. The SC Medicaid Family Planning Waiver was expanded in 1997 to cover all women with a family income below 185 percent of poverty. Women enrolled in the waiver are eligible for all family planning services covered by the SC Medicaid program which includes medical and counseling services related to pregnancy prevention. Medicaid also pays for all methods of contraception, both prescription and non-prescription. Because 72 percent of unwanted pregnancies and 65 percent of mistimed pregnancies which resulted in live births in SC were to adult women on Medicaid, this program has great potential to reduce the unintended pregnancy rate in SC.

In addition to the Medicaid family planning waiver, there are many pre-conceptional health programs throughout the state including the "Babies and You" program and the "Think Ahead" campaign. The "Babies and You" program, which is offered at many workplaces across the state, seeks to empower women in their family planning skills. The "Think Ahead" campaign focuses on teaching women what they need to know to prepare themselves for pregnancy. SC is also equipped with 94 family planning clinics throughout the state where women can seek help with their family planning.

As a result of these efforts, it is hoped that SC will see a decrease in the rate of unintended pregnancy in the coming years. The PRAMS Project will continue to monitor progress in this area.

Table 1. Characteristics of Adult Mothers (over 18) who had Intended, Mistimed, and Unwanted pregnancies, 1993-1997

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Percent (Standard Error)				
Characteristics	Intended	Mistimed	Unwanted	Total
Total	54.8 (0.8)	32.6 (0.8)	12.6 (0.5)	100.0 (0.0)
Race				
Black	36.2 (1.4)	41.0 (1.4)	22.8 (1.2)	100.0 (0.0)
White	64.4 (0.9)	28.3 (0.9)	7.3 (0.5)	100.0 (0.0)
Education				
Less than HS	45.7 (2.3)	34.1 (2.1)	20.3 (1.9)	100.0 (0.0)
Completed HS	49.3 (1.3)	36.1 (1.2)	14.7 (0.9)	100.0 (0.0)
More than HS	63.0 (1.1)	28.9 (1.1)	8.2 (0.7)	100.0 (0.0)
Marital Status				
Married	67.1 (0.9)	25.6 (0.8)	7.3 (0.5)	100.0 (0.0)
Unmarried	27.1 (1.3)	48.4 (1.5)	24.2 (1.3)	100.0 (0.0)
Prenatal Care*				
Inadequate	29.2 (2.1)	44.5 (2.3)	26.3 (2.1)	100.0 (0.0)
Intermediate	59.3 (2.1)	29.4 (1.9)	11.4 (1.4)	100.0 (0.0)
Adequate	60.1 (1.2)	30.4 (1.2)	9.5 (0.7)	100.0 (0.0)
Adequate Plus	55.8 (1.4)	32.2 (1.4)	12.1 (1.0)	100.0 (0.0)
Drank during pregnancy				
Yes	44.2 (7.0)	20.4 (5.5)	35.3 (6.7)	100.0 (0.0)
No	54.9 (0.8)	32.8 (0.8)	12.3 (0.5)	100.0 (0.0)
Smoked during pregnancy				
Yes	45.0 (2.1)	36.3 (2.1)	18.7 (1.7)	100.0 (0.0)
No	56.3 (0.9)	32.1 (0.8)	11.6 (0.6)	100.0 (0.0)
Partner Abuse during pregnancy				
Yes	38.9 (3.7)	39.7 (3.7)	21.4 (3.1)	100.0 (0.0)
No	55.6 (0.8)	32.3 (0.8)	12.1 (0.6)	100.0 (0.0)
On Medicaid during pregnancy				
Yes	37.3 (1.1)	44.0 (1.2)	18.7 (0.9)	100.0 (0.0)
No	71.0 (1.0)	22.2 (0.9)	6.9 (0.6)	100.0 (0.0)
Birth weight				
VLBW	52.2 (0.7)	32.1 (0.6)	15.7 (0.5)	100.0 (0.0)
MLBW	49.7 (1.2)	34.8 (1.2)	15.6 (0.9)	100.0 (0.0)
NBW	55.2 (0.9)	32.5 (0.8)	12.3 (0.6)	100.0 (0.0)
Breast-feeding				
None or <1 week	47.9 (1.1)	35.5 (1.1)	16.6 (0.8)	100.0 (0.0)
>=1 week	63.3 (1.2)	29.4 (1.1)	7.3 (0.6)	100.0 (0.0)
Post-partum BC**				
Yes	53.7 (0.8)	33.4 (0.8)	12.9 (0.6)	100.0 (0.0)
No	65.4 (2.4)	26.3 (2.3)	8.3 (1.3)	100.0 (0.0)

*Kotelchuck Index was used to measure adequacy of prenatal care

**BC=Birth Control

Table 2. Characteristics of adult mothers (over 18) within each Intention Category, 1993-1997

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Percent (Standard Error)

Characteristics	Intended	Mistimed	Unwanted
Total	54.8 (0.8)	32.6 (0.8)	12.6 (0.5)
Race			
Black	23.0 (0.9)	43.5 (1.4)	62.4 (2.3)
White	77.0 (0.9)	56.5 (1.4)	37.6 (2.3)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
Education			
Less than HS	11.7 (0.7)	14.6 (1.0)	22.7 (2.1)
Completed HS	37.1 (1.0)	45.8 (1.4)	48.3 (2.4)
More than HS	51.2 (1.1)	39.6 (1.4)	29.0 (2.1)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
Marital Status			
Married	84.5 (0.8)	54.1 (1.4)	40.4 (2.2)
Unmarried	15.5 (0.8)	45.9 (1.4)	59.7 (2.2)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
Prenatal Care*			
Inadequate	6.5 (0.5)	16.7 (1.1)	25.5 (2.1)
Intermediate	16.1 (0.8)	13.5 (1.0)	13.5 (1.6)
Adequate	46.9 (1.1)	40.2 (1.4)	32.3 (2.2)
Adequate Plus	30.4 (1.0)	29.6 (1.3)	28.7 (2.1)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
Drank during pregnancy			
Yes	1.0 (0.2)	0.8 (0.2)	3.6 (0.8)
No	99.0 (0.2)	99.2 (0.2)	96.4 (0.8)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
Smoked during pregnancy			
Yes	11.0 (0.7)	14.9 (1.0)	19.9 (1.8)
No	99.0 (0.7)	85.1 (1.0)	80.1 (1.8)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
Partner Abuse during pregnancy			
Yes	3.2 (0.4)	5.4 (0.6)	7.6 (1.2)
No	96.8 (0.4)	94.6 (0.6)	92.4 (1.2)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
On Medicaid during pregnancy			
Yes	32.6 (1.0)	64.7 (1.3)	71.5 (2.1)
No	67.4 (1.0)	35.4 (1.3)	28.5 (2.1)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
Birth weight			
VLBW	1.4 (0.1)	1.4 (0.1)	1.8 (0.1)
MLBW	5.8 (0.2)	6.8 (0.3)	8.0 (0.6)
NBW	92.8 (0.2)	91.8 (0.3)	90.2 (0.6)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)
Breast-feeding			
None or <1 week	47.7 (1.1)	59.3 (1.4)	73.3 (2.1)
>=1 week	52.3 (1.1)	40.7 (1.4)	26.7 (2.1)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)

Post-partum BC**			
Yes	88.1 (0.7)	91.9 (0.8)	93.4 (1.1)
No	11.9 (0.7)	8.1 (0.8)	6.6 (1.1)
Total	100.0 (0.0)	100.0 (0.0)	100.0 (0.0)

*Kotelchuck Index was used to measure adequacy of prenatal care

**BC=Birth Control

Table 3. Correlates of Unwanted and Mistimed Pregnancy among Adults Delivering Live Infants

Characteristic	UNWANTED Odds Ratio (95% CI)	MISTIMED Odds Ratio (95% CI)
Maternal Race		
Black	2.3* (1.7-3.1)	1.3* (1.1-1.6)
White	1.0 (referent)	1.0 (referent)
Marital Status		
Unmarried	3.3* (2.4-4.4)	2.6* (2.1-3.2)
Married	1.0 (referent)	1.0 (referent)
On Medicaid during Pregnancy		
	1.7* (1.3-2.3)	2.5* (2.0-3.0)
Prenatal Care		
Inadequate	3.0* (2.2-4.3)	2.0* (1.5-2.6)
Intermediate	1.1 (0.8-1.6)	1.0 (0.7-1.2)
Adequate	1.0 (referent)	1.0 (referent)
Adequate Plus	1.2 (0.9-1.6)	1.1 (0.9-1.3)
Drank during Pregnancy		
	2.3* (1.1-5.2)	0.7 (0.3-1.5)
Smoked during Pregnancy		
	1.9* (1.3-2.6)	1.2 (0.9-1.5)
Breast-feeding		
None or <1 week	1.0 (referent)	1.0 (referent)
One week or more	0.7* (0.6-0.9)	1.1 (0.9-1.3)

*Statistically significant correlates

Figure 1. Percent of Unintended Pregnancies among all Women Delivering Live Infants in SC: 1993-1997

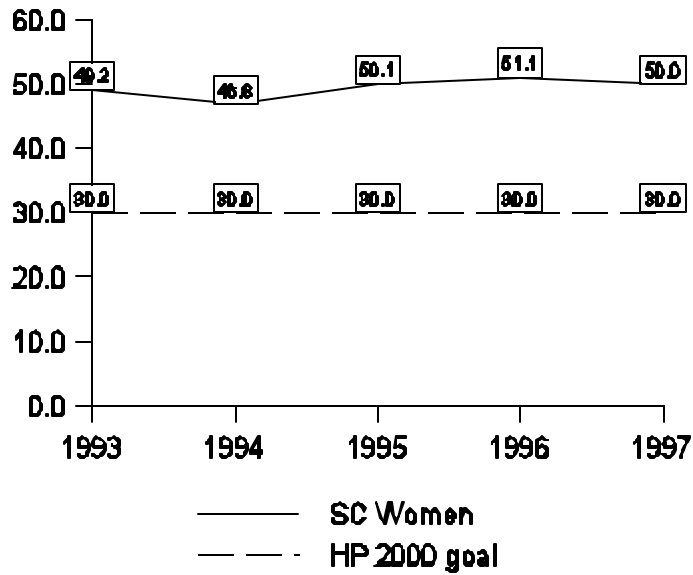


Figure 2. Percent of Mistimed and Unwanted Pregnancies among Women Delivering Live Infants in SC: 1993-1997

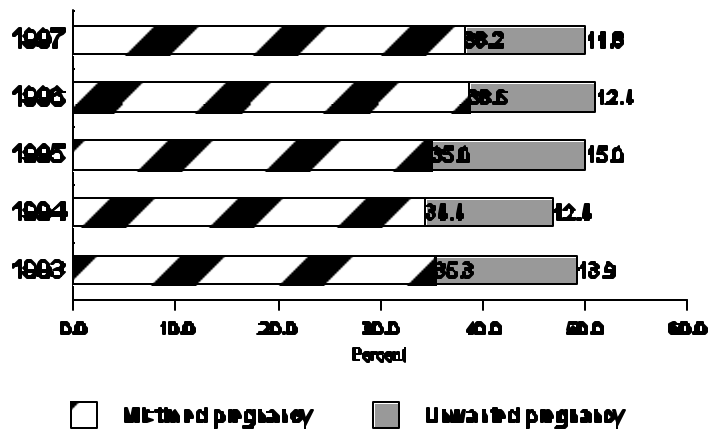
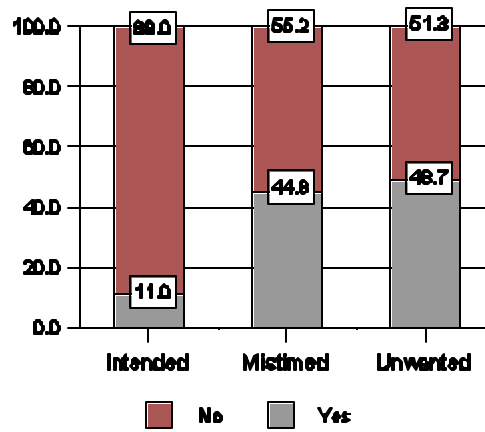


Figure 3. Birth Control Use at Time of Conception by Intention Status: 1996-1997



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