

PRAMS PERSPECTIVES

A Pregnancy Risk Assessment Monitoring System Report June 2007

Births from Unintended Pregnancies and Contraceptive Use in Utah

Background

Unintended pregnancy remains a prevalent public health problem. From 1994 to 2001, the unintended pregnancy rate in the United States remained unchanged at 49%.¹ Concern about unintended pregnancy in Utah led to the publication of a PRAMS Perspectives report in 2001. Using the 1999 data set, it was found that 33.7% of women delivering a live birth reported their pregnancy as unintended.

What is PRAMS?

Data in this newsletter were provided by the Utah Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is an ongoing, population-based risk factor surveillance system designed to identify and monitor selected maternal experiences that occur before and during pregnancy and experiences of the child's early infancy. Each month, a sample of approximately 200 women, two to four months postpartum, is selected. The sample is stratified based upon race and infant birth weight so that inferences and comparisons about these groups can be determined. The results are weighted for sample design and non-response.

PRAMS is intended to help answer questions that birth certificate data alone cannot answer. Data will be used to provide important information that can guide policy and other efforts to improve care and outcomes for pregnant women and infants in Utah. Women were asked questions about prenatal care, breastfeeding, smoking and alcohol use, physical abuse, and early infant care.

The PRAMS data reported here represents all live births to Utah residents from 2004-2005. A total of 4667 mothers were selected to participate in the project and 3904 mothers responded for an unweighted response rate of 83.7%. Survey results were weighted for non-response so that analyses could be generalized to the entire population of Utah women delivering live births.

Since the last analysis many questions remained unanswered. What did women mean when they said they were using birth control? What methods were women using to prevent conception? Therefore, a new question was added to the phase five PRAMS survey (used from 2004 through 2008) asking about specific contraceptive methods being used at the time of conception. This follow up report looks at trends in unintended pregnancy over the last six years as well as reasons for non-use of contraception and methods of contraception being used by women who ultimately conceived and delivered a live born infant. Furthermore, this report assesses the outcomes associated with unintended childbearing.

Methodology

For this report, pregnancy intention was first categorized as either intended or unintended. Pregnancy intention was derived from women's answers to the following question: "Thinking back to just before you got pregnant with your new baby, how did you feel about becoming pregnant?" Those who responded "I wanted to be pregnant later" or "I didn't want to be pregnant then or at any time in the future" were placed in the unintended category. Those who responded "I wanted to be pregnant sooner" or "I wanted to be pregnant then" were placed in the intended category.

Among the unintended group, we further stratified pregnancy intention into a third “ambivalent” category. Ambivalence was determined by excluding those women from the unintended group who indicated they were not using birth control because “I didn’t mind if I got pregnant.” After examining these groups by demographics, the ambivalent women were excluded from the remainder of the analysis as their pregnancy intention was unclear.

The PRAMS survey asks women, “When you got pregnant with your new baby, were you or your husband or partner doing anything to keep you from getting pregnant?”

Women who answer “yes” are asked the following question: “When you got pregnant with your new baby, what were you or your husband or partner doing to keep from getting pregnant?”

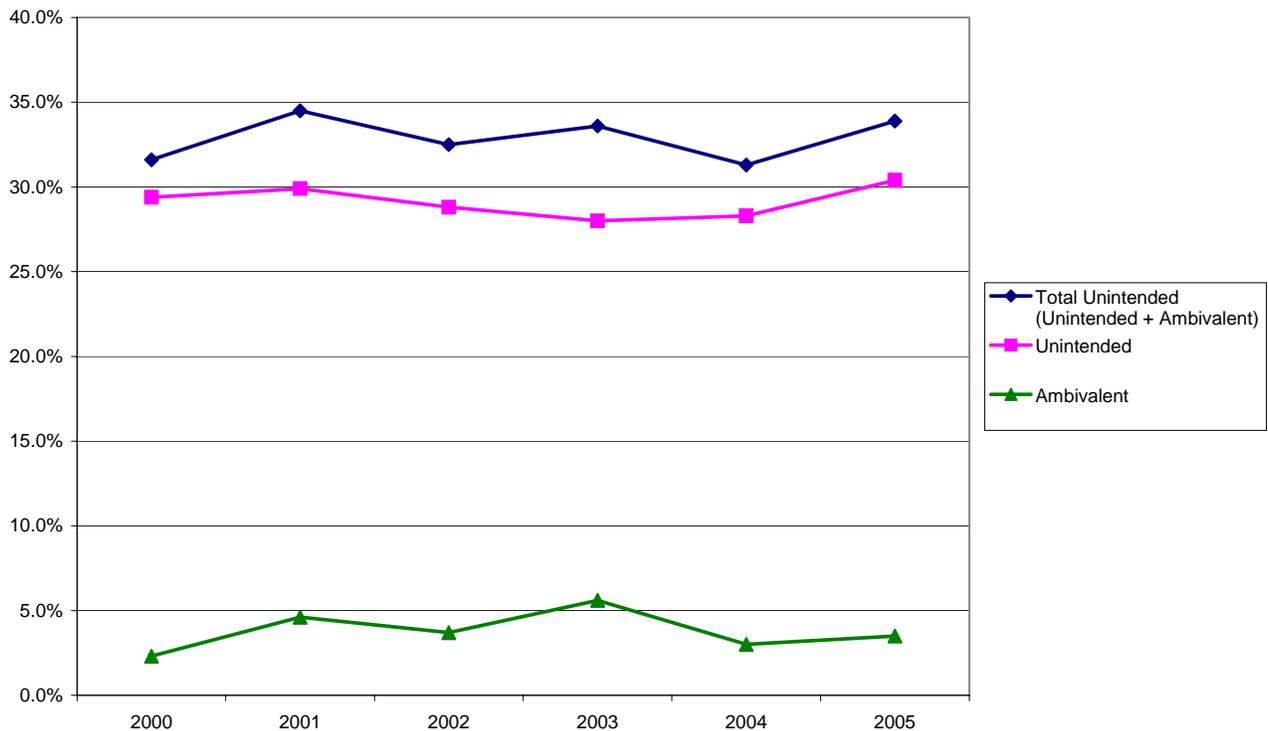
Those who answer “no” are asked the following question: “What were you or your husband’s or partner’s reasons for not doing anything to keep from getting pregnant?”

The authors note that this report only examines the proportion of unintended pregnancies that resulted in a live birth and does not include pregnancies that ended in abortion, miscarriage, or fetal demise.

Trends in Unintended Pregnancy

Rates of unintended pregnancy in Utah have changed little over the last few years. Figure 1 shows the unintended pregnancy rate over the last six years according to PRAMS data.

**Figure 1. Births from Unintended Pregnancy
2000 - 2005 Utah PRAMS Data**



Demographics of Unintended Pregnancy

Table 1. The Proportion of Women with Unintended Pregnancy by Maternal Characteristics, 2004 – 2005 Utah PRAMS Data

Characteristics	Unintended	95% Confidence Interval	Ambivalent	95% Confidence Interval	P-Value*
Total	29.4%	+ 1.6%	3.3%	+ 0.6%	
Maternal Age					<.0001
≤ 17	75.7%	+ 8.0%	4.9%	+ 3.8%	
18 - 19	58.6%	+ 7.2%	5.3%	+ 3.8%	
20 - 24	33.9%	+ 3.0%	5.5%	+ 1.5%	
25 - 29	23.0%	+ 2.6%	2.1%	+ 0.8%	
30 - 34	25.0%	+ 3.7%	2.2%	+ 1.3%	
35 - 39	25.6%	+ 6.0%	1.8%	+ 1.9%	
40 +	20.4%	+ 11.0%	0.0%	+ n/a	
Education Level					<.0001
Less than High School	46.0%	+ 3.3%	4.5%	+ 1.4%	
Completed High School	37.5%	+ 2.8%	3.9%	+ 1.1%	
Some College	25.3%	+ 3.5%	3.0%	+ 1.3%	
College Graduate	15.9%	+ 3.0%	2.4%	+ 1.2%	
Marital Status					<.0001
Married	23.2%	+ 4.7%	3.0%	+ 0.7%	
Unmarried	61.5%	+ 3.7%	4.5%	+ 1.5%	
Race					<.05
White	28.8%	+ 1.6%	3.2%	+ 0.6%	
Other than White	38.3%	+ 7.9%	4.6%	+ 3.3%	
Ethnicity					<.0001
Hispanic	39.6%	+ 3.9%	2.2%	+ 1.1%	
Non-Hispanic	27.5%	+ 1.8%	3.5%	+ 0.7%	
Federal Poverty Level (FPL)					<.0001
<100%	46.1%	+ 3.5%	4.1%	+ 1.3%	
101 - 133%	42.2%	+ 6.6%	4.3%	+ 2.9%	
134 - 199%	32.3%	+ 4.6%	3.3%	+ 1.6%	
200%+	19.9%	+ 2.0%	2.8%	+ 0.8%	
Insurance Before Pregnancy					<.0001
Yes	22.6%	+ 1.9%	3.0%	+ 0.8%	
No	44.6%	+ 2.9%	3.9%	+ 1.1%	
Medicaid Before Pregnancy					<.0001
Yes	47.6%	+ 6.8%	6.0%	+ 2.9%	
No	28.2%	+ 1.6%	3.1%	+ 0.6%	
Urban/Rural					NS
Urban	28.7%	+ 1.8%	3.1%	+ 0.7%	
Rural	31.5%	+ 3.3%	3.9%	+ 1.4%	
Physical Abuse Before Pregnancy					<.0001
Yes	54.8%	+ 8.5%	4.1%	+ 2.9%	
No	28.4%	+ 1.0%	3.3%	+ 0.6%	

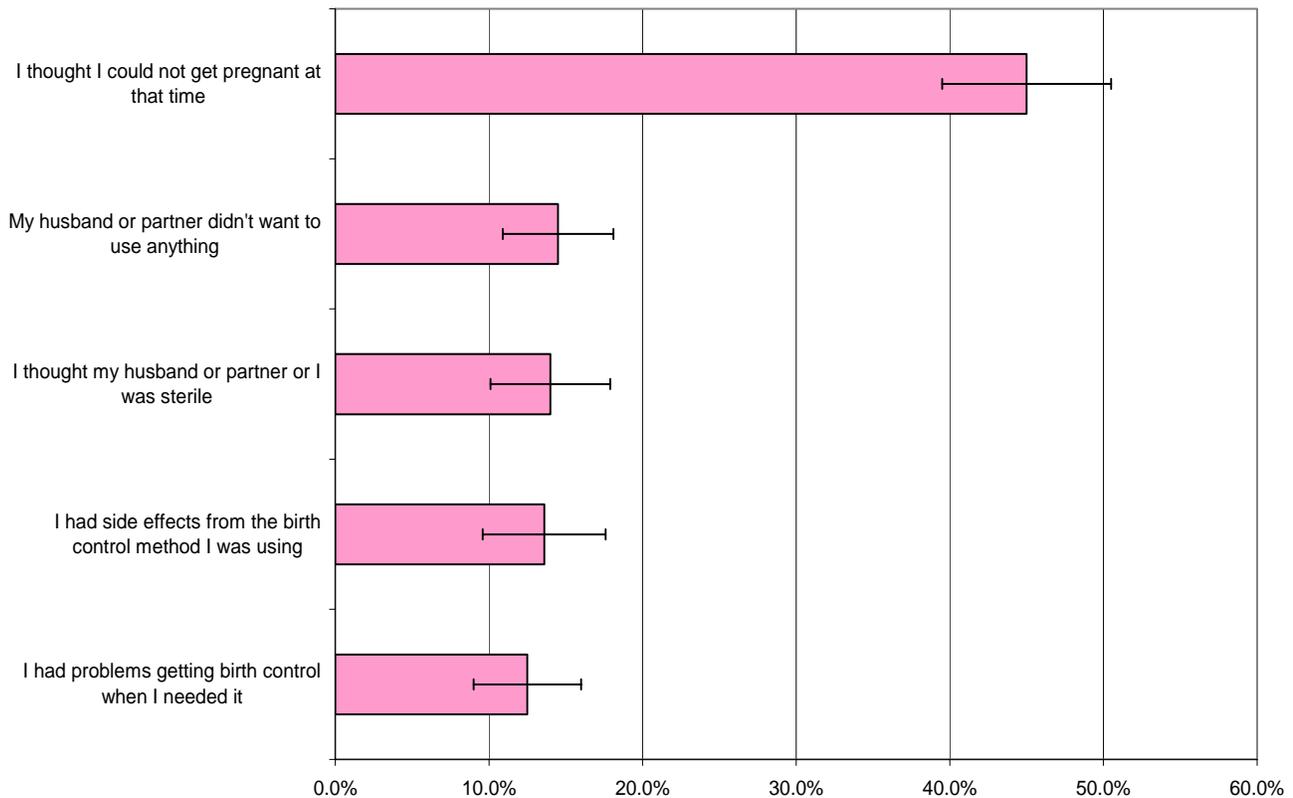
* Chi-Square analysis includes intended pregnancy

Table 1 shows that overall, 29.4% of women reported their pregnancy as unintended and an additional 3.3% were ambivalent about their pregnancy intention in 2004 and 2005. Higher rates of unintended pregnancy were noted among women who were younger, of lower education levels, unmarried, of other than white races, of Hispanic origin, of lower poverty levels, uninsured or enrolled in Medicaid prior to pregnancy as well as women who reported intimate partner violence prior to pregnancy.

Contraceptive Non-Use/Methods

Of the women with an unintended pregnancy in 2004 - 2005, 58% reported using some form of contraception at the time they became pregnant. In 1999, this rate was only 42.7%. It appears that although more women reported using contraception, this affected overall intention rates very little.

Figure 2. Reasons for Not Using Birth Control at Time of Conception Among Utah Women Reporting Their Pregnancy as Unintended, 2004 - 2005 Utah PRAMS Data



Stratifying Utah women's reasons for not using contraception among demographic groups, there were minimal differences between groups. However statistically significant differences were found among a few subsets (data not shown):

- Women with lower education levels were more likely to report not being able to get contraception when they needed it.
- Teens, women with lower education levels, and unmarried women were more likely to report their husbands/partners not wanting to use birth control.
- Non-Hispanic women and those residing in urban areas were more likely to report having side effects from the methods they were using.
- Unmarried women, women of white race, non-Hispanic women, and women residing in rural areas were more likely to report thinking that they or their partners were sterile.
- Hispanic women were more likely to report thinking they couldn't get pregnant at the time.

Figure 3. Contraceptive Methods Used at the Time of Conception Among Utah Women Reporting Their Pregnancy as Unintended, 2004 - 2005 Utah PRAMS Data

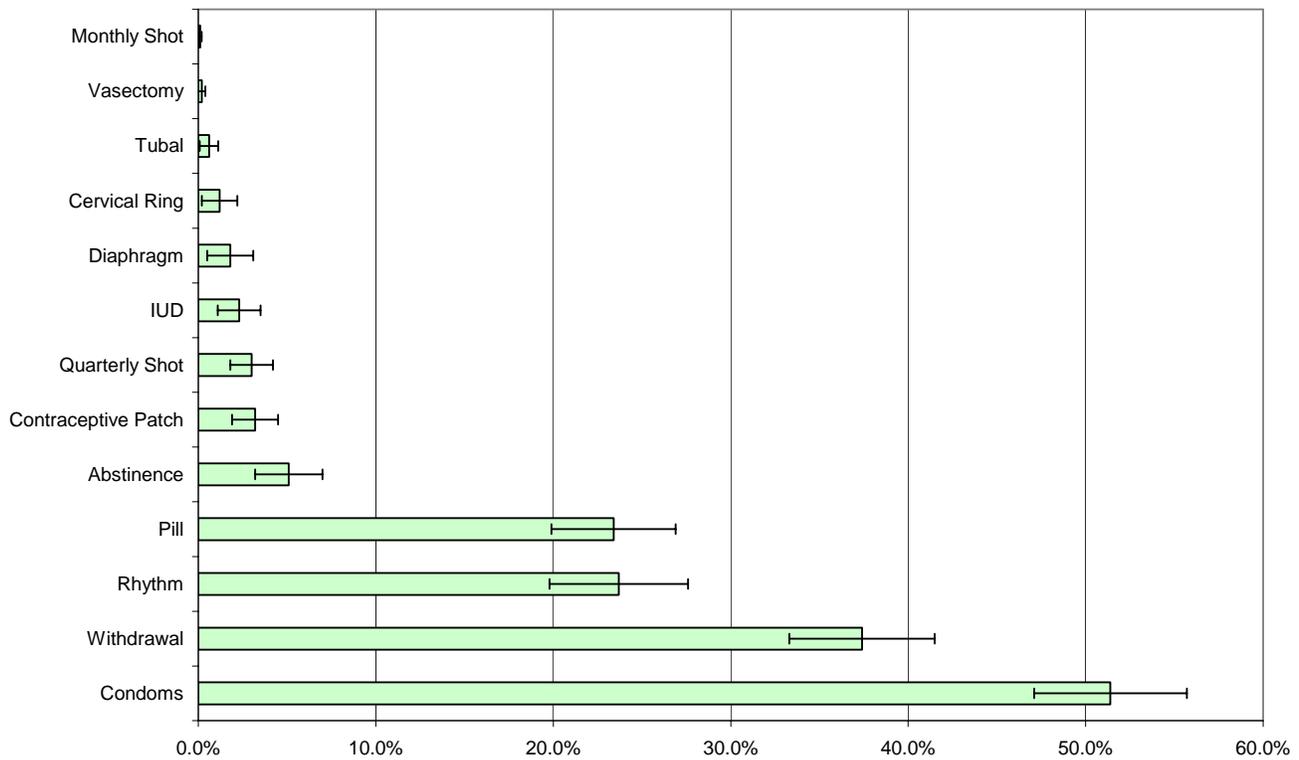


Figure 3 shows the contraceptive methods women reported using when they got pregnant. Women were instructed to check all methods that applied. The data does not disclose whether contraceptives were used correctly or consistently or whether the pregnancy was a result of true contraceptive failure.

Stratifying contraceptive methods used by women among demographic groups again showed very little variation between groups. Statistically significant differences were noted among the following (data not shown):

- Women with no insurance prior to pregnancy were more likely to be practicing abstinence.
- Higher rates of withdrawal were reported among women who were unmarried, living in urban areas, and reported physical abuse in the months before pregnancy.
- Women using the rhythm method were more likely to be older, with higher levels of education, married, non-Hispanic, and have had insurance prior to pregnancy.

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Effects of Unintended Pregnancy

Table 2. Selected Outcomes By Pregnancy Intention, 2004 – 2005 Utah PRAMS Data

Indicator	Intended	Unintended	P-Value
Frightened for Safety Because of Partner Threats	1.4%	5.7%	<.0001
Husband/Partner Threatened During Pregnancy	2.1%	8.4%	<.0001
Partner Tried to Control Daily Activities	2.2%	7.5%	<.0001
Forced into Sexual Activity by Husband/Partner	0.6%	3.6%	<.0001
Physical Abuse During Pregnancy	1.5%	5.7%	<.0001
Partner Associated Stress~	16.9%	43.5%	<.0001
Financial Stress^	50.2%	67.3%	<.0001
Had Diagnosis of Chlamydia During Pregnancy	1.7%	4.3%	<.001
Smoked During Third Trimester	3.2%	11.0%	<.0001
Initiated Breastfeeding	92.9%	86.0%	<.0001
Still Breastfeeding at the Time of Survey (2 - 5 months)	71.8%	56.5%	<.0001
Outpatient Visit to Hospital for Pregnancy Related Morbidity	38.5%	44.7%	<.05
Inpatient Hospital Stay 1 - 7 Days for Pregnancy Related Morbidity	13.1%	18.0%	<.01
Infant Admitted to ICU After Delivery	10.2%	12.7%	<.05
Low Birthweight Infant	5.2%	6.9%	<.0005
Postpartum Depression	10.0%	23.2%	<.0001
~ Includes separation or divorce, arguing with partner, or partner not wanting pregnancy			
^ Includes loss of job for woman or partner, unpaid bills, moving to a new address			

Table 2 shows selected occurrences and outcomes for women by pregnancy intention. Women with an unintended pregnancy report significantly higher rates of emotional and sexual abuse, physical abuse during pregnancy, financial and partner associated stress during pregnancy, chlamydia infections, smoking during the third trimester, visits to the hospital for a pregnancy related morbidity, NICU admissions, low birth weight infants, and postpartum depression. Women with unintended pregnancies were also significantly less likely to breastfeed their infants.

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Discussion/Recommendation

These data indicate the reasons for unintended pregnancy remain diverse. Women who were not using contraception at the time of pregnancy appear to have a lack of knowledge regarding their fertility cycles. Education continues to be needed regarding the reproductive cycle. In a recent publication of focus groups held with low income women at risk of an unintended pregnancy in Michigan, the authors found that women “felt that there were only a few days or hours each month when a woman was at risk for pregnancy.”³

The majority of women who were using contraception were using unreliable methods and may have been using other dependable methods incorrectly or inconsistently to result in a failure of that method. Condom use had the highest failure rates in our analysis followed by withdrawal. Condoms were more likely to be used by groups reporting the highest rates of unintended pregnancy (teens, unmarried). A 2007 study found that women were dissatisfied with the discussion given to them from providers and the lack of dialogue over what methods would work best for them.³ A thorough assessment of a woman’s contraceptive needs as well as education on proper and consistent use of her chosen method is essential.

A large number of women in Utah report using the rhythm method as a form of contraception. While the term remains widely recognized, the “rhythm” method is a rather outdated concept. A distinction needs to be made between the notion of the “rhythm” method and the newer concepts of Natural Family Planning (NFP). Many current NFP methods are as effective as hormonal methods if used consistently and correctly. As non-hormonal methods appear to be appealing to women, support should be given to teach appropriate use of NFP methods to those women who desire to use them. For more descriptions of current Natural Family Planning Methods, please see our website at: http://health.utah.gov/rhp/natural_family_planning.htm.

A disturbing finding that emerged from this analysis is the knowledge that some women may not have control over their own fertility. Nearly 55% of women reporting physical abuse before pregnancy said their pregnancy was unintended. Over fourteen percent of women said they weren’t using birth control because their husband or partner didn’t want to and there was a significant correlation between partner abuse and the use of withdrawal as a contraceptive method. These findings are consistent with studies that have found an association between domestic violence and unintended pregnancy.⁴ All providers should be screening for intimate partner violence at well-woman checkups and prenatal appointments and should help women choose appropriate methods that will help her control her own fertility without threats of violence.

Expansion of postpartum Medicaid contraceptive coverage continues to be a need in Utah. A woman who is on Medicaid for prenatal services loses coverage two months postpartum, therefore contraceptives may not be accessible to many women at a vulnerable time for becoming pregnant again. A recent analysis shows that states that have implemented Centers for Medicare and Medicaid 1115 Research and Demonstration waivers to expand family planning services up to two years postpartum lowered average annual birth rates in all states.⁵ Extending Medicaid family planning services has proven to be cost saving and/or neutral in the 25 states who have implemented them.

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