

PRAMS PERSPECTIVES

A Pregnancy Risk Assessment Monitoring System Quarterly Report V.1 No.2

Unintended Pregnancy in Utah

Background

In the United States, unintended pregnancy is a major public health problem. Unintended pregnancy is a general term that includes pregnancies that a woman states were either mistimed or unwanted at the time of conception.¹ It was estimated that 49% (2,648,830) of all pregnancies (excluding miscarriages) in 1994 were unintended. Over half of the unintended pregnancies (1,430,367) in 1994 ended in abortion.² Unintended pregnancies are more likely to occur if the mother is an adolescent, unmarried, over age 40,¹ or has experienced abuse in childhood.³ Women with an unintended pregnancy are less likely to seek early prenatal care or receive adequate prenatal care, are more likely to expose the fetus to harmful substances such as cigarette smoke and alcohol,¹ and are less likely to initiate and maintain breastfeeding.⁴

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 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 represent all live births to Utah residents in 1999. A total of 2140 mothers were selected to participate in the project and 1540 mothers responded for a response rate of 72%. Survey results were weighted for non-response so that analyses could be generalized to the entire population of Utah women delivering live births.

Methodology

For this report, unintended pregnancies include pregnancies that were reported as being mistimed and pregnancies that were reported as being unwanted. A mistimed pregnancy is defined as a pregnancy that was wanted by the woman at some time, but occurred sooner than was intended. An unwanted pregnancy is defined as a pregnancy that occurred when the woman did not want to have a pregnancy then or at any time in the future.

Pregnancy intention was determined by asking the question, "Thinking back to *just before* you got pregnant, 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.

It is important to note that this report examines the proportion of live births that resulted from unintended pregnancy, which differs from the unintended pregnancy rate, as it does not include unintended pregnancies that ended in abortion or miscarriage. Because the PRAMS questionnaire is completed postpartum, there may be recall bias from mothers regarding their pre-pregnancy feelings about becoming pregnant.

Utah PRAMS data from 1999 were analyzed using chi-squared tests to identify factors that may contribute to unintended pregnancy.

Unintended Pregnancy in Utah

The Healthy People 2010 goal is that 70% of all pregnancies should be intended.⁵ Although Utah is very close to achieving this goal overall, there are groups that report significantly higher proportions of unintended pregnancy. Before progress can be made in reducing unintended pregnancies in Utah, it is important to better understand the factors that contribute to unintended pregnancy.

In 1999, 33.7% (15,500) of live births in Utah were the result of unintended pregnancies. Overall, slightly less than 20% of Utah women were using birth control at the time they conceived. Of the women who reported their pregnancies as unintended, 42.7% said they were using birth control at the time of conception.

Table 1 shows the proportion of unintended pregnancy across various maternal characteristics. Significantly higher rates of unintended pregnancy were noted among women who:

- were younger than 20 years of age,
- had a less than high school education,
- were other than white race,
- were of Hispanic ethnicity,
- were unmarried,
- had annual household incomes less than \$15,000 per year,
- had no health insurance coverage before pregnancy (not counting Medicaid),
- were insured by Medicaid before they became pregnant,
- smoked or drank in the three months before pregnancy,
- experienced domestic violence before their pregnancy, and
- had a baby within 20 months of their most recent pregnancy.

Other significant findings (data not shown):

- Of women with unintended pregnancies in 1999, 26.4% entered prenatal care after the first trimester compared to 12.9% of women with intended pregnancies. Overall, the Utah rate for late prenatal care entry was 17.9% in 1999.
- Utah women with unintended pregnancies were more likely to receive inadequate prenatal care (41.3%) than women who reported their pregnancy was intended (33.0%) (APCNU Index⁶).
- Women who reported an unintended pregnancy in 1999 were more likely to report moderate to severe postpartum depression (32.2%) than were women who reported intended pregnancies (21.4%).
- In Utah, 64.3% of women on Medicaid before pregnancy reported their most recent pregnancy as unintended, compared to 28.8% of women with private/group insurance before pregnancy (not including Medicaid).
- Of women aged 30 - 39, over 62% reported their most recent pregnancy as unintended despite using birth control, a possible indicator of contraceptive failure, incorrect, or inconsistent use of birth control.

Authors:

Laurie Baksh, MPH, Utah PRAMS Operations Manager
Kirsten Davis, BS, Utah PRAMS Data Manager
Theresa Davis, BS, MPH student, University of Utah
Lois Bloebaum, BSN, Manager, Reproductive Health Program
Nan Streeter, MS, RN, Director, Bureau of Maternal Child Health
Karrie Galloway, President/CEO Planned Parenthood Association of Utah
Bob Rolfs, MD, MPH, Director, Center for Health Data

Table 1. Percentage of Utah Women With Live Births Who Reported Their Most Recent Pregnancy was Unintended by Selected Maternal Characteristics, 1999 Utah PRAMS Data.

Characteristics	Percentage of Women Who Reported Their Pregnancy as Unintended¹	Population Estimate
Total Birth Population	33.7 ± 3.1	15,500
Maternal Age		
≤ 17	86.2 ± 10.5	1,700
18 - 19	81.1 ± 11.1	1,800
20 - 24	32.0 ± 5.7	4,400
25 - 29	29.1 ± 5.2	4,400
30 - 34	28.0 ± 6.8	2,300
35 - 39	20.7 ± 8.9	800
40 +	9.3 ± 10.4	100
Education Level		
Less than High School	56.5 ± 9.3	4,300
Completed High School	33.3 ± 5.8	4,500
Some College	32.4 ± 5.5	4,300
College Graduate	21.6 ± 5.3	2,400
Race		
White	32.9 ± 3.3	14,400
Other Than White	46.8 ± 7.5	1,100
Hispanic Ethnicity		
Hispanic	45.8 ± 11.1	2,600
Non-Hispanic	32.0 ± 3.2	12,900
Marital Status		
Married	26.7 ± 3.1	10,300
Unmarried	74.2 ± 7.9	5,200
Geographic Area		
Urban	34.2 ± 5.3	12,300
Rural	31.7 ± 9.3	3,200
Annual Household Income		
< \$15,000	54.9 ± 7.7	5,700
\$15,000 - 35,000	28.2 ± 5.1	4,500
\$35,000 - 50,000	28.1 ± 6.3	3,000
> \$50,000	21.9 ± 6.0	2,300
Health Insurance Coverage Before Conception²		
Yes	28.8 ± 3.4	9,600
No	47.5 ± 7.0	5,900
Medicaid Coverage Before Conception		
Yes	64.3 ± 15.9	1,500
No	32.3 ± 3.2	14,000
Smoked Cigarettes in 3 Months Before Pregnancy		
Yes	59.7 ± 8.9	4,000
No	29.0 ± 3.2	11,500
Drank Alcohol in 3 Months Before Pregnancy		
Yes	50.6 ± 7.2	5,300
No	28.3 ± 3.4	10,200
Domestic Violence in Year Before Pregnancy		
Yes	62.7 ± 14.4	1,600
No	32.2 ± 3.2	13,900
Number of Previous Live Births		
None	38.1 ± 5.4	6,400
1 - 4	31.3 ± 4.0	8,600
5 or More	26.6 ± 14.5	500
Birth Interval		
≤ 20 Months	57.5 ± 11.3	2,500
21 - 36 Months	29.3 ± 6.5	3,300
37 + Months	15.6 ± 5.4	1,700

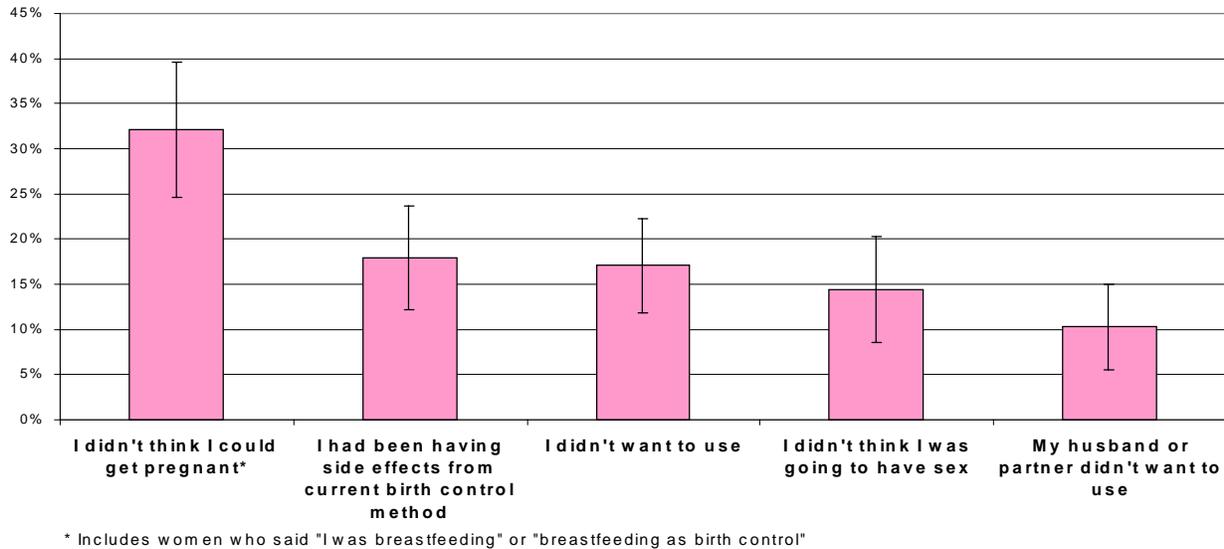
¹ Plus or minus 95% confidence interval

² Women were asked not to include Medicaid when answering this question

Contraceptive Use

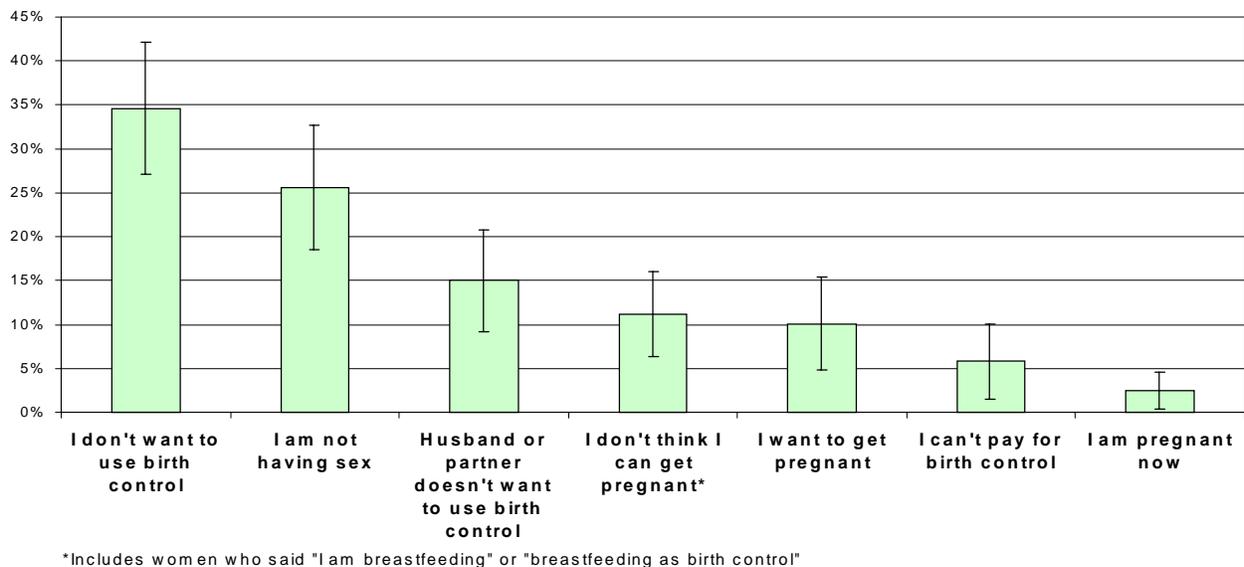
To explore reasons for not using contraception at the time of conception, PRAMS respondents were asked the question, "When you got pregnant with your new baby, were you or your husband or partner using any kind of birth control?" No birth control use at the time of conception was reported by 57.3% of women with an unintended pregnancy. The women who responded "no" to this question were asked to identify their reasons for not using birth control. Figure 1 shows the reasons women with unintended pregnancies gave for not using birth control at the time of conception. The most common reason for omitting birth control was women thinking that they could not get pregnant at the time conception occurred.

Figure 1. Reasons for Not Using Birth Control at Time of Conception Among Utah Women With Live Births Who Reported Their Most Recent Pregnancy Was Unintended, 1999 Utah PRAMS Data



Since behavior after these pregnancies can contribute to future unintended pregnancies, contraceptive use after pregnancy in all Utah women was examined. Postpartum birth control use (3 to 8 months postpartum) was reported by 82.9% of women. Figure 2 shows reasons for not using postpartum birth control. The most common reason cited by women was that they did not want to use any birth control. Utah women who reported their health care provider discussed birth control methods to use after pregnancy were significantly more likely to use postpartum birth control (85.1%) than women whose providers did not (75.1%).

Figure 2. Self Reported Reasons for Not Using Postpartum Birth Control Among Utah Women With Live Births, 1999 Utah PRAMS Data.



Comments/Recommendations

Women in the United States spend three quarters of their reproductive years trying to avoid pregnancy. It has been estimated that 40% of women will have had at least one induced abortion by menopause.² In their report on low birthweight, the Institute of Medicine states, "The best protection available against low birthweight and other poor pregnancy outcomes is to have a woman actively plan for pregnancy, enter pregnancy in good health with as few risk factors as possible, and be fully informed about her reproductive and general health."⁷ In order to accomplish, and to exceed, the HP2010 goal of 70% of pregnancies being intended, public health efforts may include the following:

Health Education

- Increase knowledge of human reproduction, contraceptive choices and correct contraceptive use. Many Americans lack basic information about human reproduction, conception, and available means of contraception. Because of this lack of knowledge, proper and consistent use of contraception is difficult for many, as illustrated by the fact that 42.7% of women with unintended pregnancies in Utah in 1999 reported that they were using birth control at the time of conception. Over 32% of women with unintended pregnancies said they weren't using birth control because they didn't think they could get pregnant. Knowledge and availability of emergency contraception (EC) should be expanded among both clinicians and the public. The use of EC pills reduces the risk of pregnancy by at least 74% if used correctly.⁸ Dr. Thomas Purdon, President of the American College of Obstetricians and Gynecologists, issued a call to action in April 2001 for practitioners to offer advance prescription for EC during routine visits.
- Promote optimal spacing of pregnancies for healthy outcomes. Short interpregnancy intervals (less than six months between the birth of the previous child and conception of the next pregnancy) have been associated with an increased risk of low birth weight, preterm birth, and small for gestational age infants.⁹ Data for 1999 show that 64.6% of Utah women with a short interpregnancy interval reported their most recent pregnancy as unintended. Providers of health care to women should discuss the risks of close spacing of pregnancies and promote awareness of postpartum contraceptive choices with their patients. Women whose provider discussed postpartum birth control use were significantly more likely to use postpartum contraception.

Reproductive Health Services

- Increase dialogue between health care providers and women regarding reproductive health and family planning options. Standard provider practice should include age appropriate discussion of all forms of contraception, along with availability, effectiveness, risks of use, and discussion of the importance of planning for pregnancy for optimal health outcomes with their patients on a routine basis.

Access to Health Care

- Improve insurance coverage for family planning services. Nationally, only 15% of large-group health plans cover all five primary reversible contraceptive methods (IUD, diaphragm, Norplant, Depo-Provera, and oral contraceptives), and less than 40% cover any contraceptive methods. Only 39% of Health Maintenance Organizations cover all five reversible contraceptive methods. About 50% of Preferred Provider Organizations cover any reversible method of contraception.⁴
- Seek expansion of Medicaid contraceptive coverage for women up to two years postpartum. Currently in Utah, women who qualify for Medicaid because they are pregnant have family planning services covered for approximately two months postpartum, at which time all Medicaid services are terminated. These women may lack the resources necessary to access family planning services and methods on their own and are likely to be negatively affected by an unintended pregnancy. For this reason, continuation of publicly funded family planning services is important.⁵

References

1. Committee on Unintended Pregnancy, *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families*, ed. S.S. Brown and L. Eisenberg. 1995. Washington, D.C.: National Academy Press. 380.
2. Henshaw, S.K., *Unintended pregnancy in the United States*. *Fam Plann Perspect*, 1998. **30**(1): p. 24-29.
3. Dietz, P.M., et al., *Unintended pregnancy among adult women exposed to abuse or household dysfunction during their childhood*. *JAMA*, 1999. **282**(14): p. 1359-64.
4. Klima, C.S., *Unintended pregnancy. Consequences and solutions for a worldwide problem*. *J Nurse Midwifery*, 1998. **43**(6): p. 483-91.
5. United States Department of Health and Human Services, *Healthy People 2010. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols.* 2000: Washington, DC.
6. Kotelchuck, M., *An Evaluation of the Kessner Adequacy of Prenatal Care Index and a Proposed Adequacy of Prenatal Care Utilization Index*. *Am J Pub Health*, 1994. **84**(9): p. 1414-1420.
7. Committee to Study the Prevention of Low Birthweight, *Preventing Low Birthweight*. 1985. Institute of Medicine: Washington, D.C. p. 212-240.
8. Trussell, J., et al., *Preventing unintended pregnancy: the cost-effectiveness of three methods of emergency contraception*. *Am J Public Health*, 1997. **87**(6): p. 932-7.
9. Zhu, B.P., et al., *Effect of the interval between pregnancies on perinatal outcomes*. *N Engl J Med*, 1999. **340**(8): p. 589-94.

Publishing information

This publication was supported by Award Number U50/CCU817126-02 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC.

RETURN SERVICE REQUESTED

Reproductive Health Program
Utah Department of Health
P.O. Box 142001
Salt Lake City, Utah 84114-2001