PRAMSGRAM
OKLAHOMA PREGNANCY RISK ASSESSMENT MONITORING SYSTEM · VOL 6 NO4

Unwanted Pregnancy In Oklahoma

Introduction

Each year, close to 6,000 Oklahoma women give birth to a baby as the result of an unwanted pregnancy. These births, at the time of their conception, were said to be not wanted then or at any time in the future. The consequences of these *unwanted* pregnancies are considerable. Children of *unwanted* pregnancies are at increased risk for low birth weight, infant mortality, child abuse, and not receiving sufficient resources for healthy development.[1] The findings of these studies imply that unintended pregnancy may increase the pressure on the child welfare system, including juvenile courts, the foster care system, and related social service agencies due to the associated increased risk of child abuse and neglect.[1] Women with *unwanted* pregnancies are less likely to get early prenatal care as well as more likely to smoke and drink during pregnancy, more likely to be involved in violence and to be separated or divorced from their partner.[1] Furthermore, economic costs of *unwanted* pregnancies, in terms of public Medicaid expenditure for prenatal and delivery services alone, amounted to over $16.6 million dollars in 1992.[2] This study of ***unwanted pregnancy*** was undertaken to provide information about the extent and magnitude of this issue in Oklahoma.

Methods

Data from the Oklahoma Pregnancy Risk Assessment Monitoring System (PRAMS) were used to examine *unwanted* pregnancies resulting in live births in Oklahoma. In order to understand the intendedness of a pregnancy, mothers with a recent birth were asked to describe their feelings about becoming pregnant at the time just before they became pregnant. (See Figure 1.) A pregnancy was considered ***intended*** if the mother said she wanted to conceive either sooner or at that time. A pregnancy was ***mistimed*** if the mother desired to become pregnant later. A pregnancy was ***unwanted*** if it was not desired at that time or any time in the future. Previous studies have focused on the total population of unintended pregnancy, which includes both ***mistimed*** and ***unwanted*** pregnancies.[1,2,3]

This study includes PRAMS data from mothers delivering a live birth between April 1988-March 1995. Frequency distributions and 95% confidence intervals (95%CI) are presented. In addition to overall prevalence, demographic and lifestyle characteristics associated with *unwanted* pregnancy are examined.

Results

Unintended pregnancies—both *mistimed* and *unwanted*—accounted for 45.7% of Oklahoma's live births between April 1988-March 1995 (see Figure 2). *Unwanted*

Figure 1. PRAMS Question Regarding Intention of Pregnancy.

Thinking back to just before you were pregnant, how did you feel about becoming pregnant?

Check the best answer.

I wanted to be pregnant sooner
I wanted to be pregnant then
I wanted to be pregnant later
I did not want to be pregnant then or any time in the future
I don't know

In Oklahoma

- Among live births, 12.5% result from ***unwanted pregnancy***—a pregnancy not wanted then or any time in the future.
- Women who are single at conception are two times more likely to have an *unwanted* pregnancy resulting in live birth as married women.
- Over half of *unwanted* pregnancies occur among women married at the time of conception.
- Women living at or below the Federal Poverty Level are nearly three times as likely to have an *unwanted* pregnancy resulting in live birth as women living at or above 185% of the Federal Poverty Level.
- 57.2% of *unwanted* pregnancies resulting in live births occur among women whose family income is from a job or business.
- African-American women are twice as likely as white women to deliver a live birth resulting from an *unwanted* pregnancy.
- Over 70% of *unwanted* pregnancies resulting in live births occur among white women.

pregnancies—pregnancies not wanted then or any time in the future—accounted for about 35,000 (12.5%) Oklahoma births between April 1988-March 1995. Ultimately two important questions must be answered to understand *unwanted* pregnancy in Oklahoma.

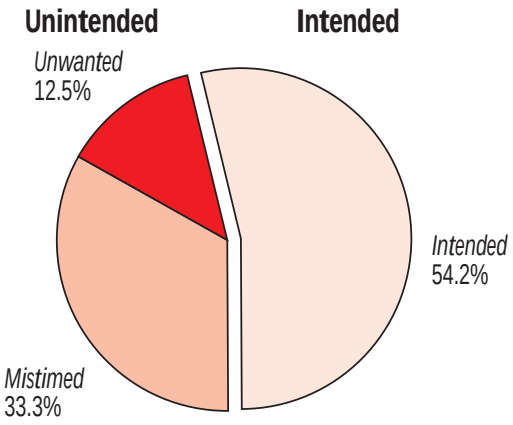
- ***The prevalence of unwanted pregnancy in Oklahoma.***

  In other words, Who has most of the unwanted pregnancies?

- ***Which groups are at highest risk of unwanted pregnancy.***

  In other words, Who is most likely to have an unwanted pregnancy?

Figure 2. Pregnancy Intention at Conception Among Live Births, Oklahoma 1988-1995



This analysis focuses on both questions. First, the total number and distribution of *unwanted* pregnancies in Oklahoma will be discussed. That is, with whom or what groups account for most *unwanted* pregnancies in Oklahoma. Second, the proportion of *unwanted* pregnancies among specific groups will be discussed. This includes those women or groups of women most likely to have *unwanted* pregnancy or at highest risk of *unwanted* pregnancy.

Who has most unwanted pregnancies?

Unwanted pregnancies are common in all social and economic groups. Over 75% of *unwanted* pregnancies resulting in live births occurred among women with at least 12 years of education (see Table 1). Over 70% of *unwanted* pregnancies resulting in live births occurred among white women. Additionally, 52.5% of *unwanted* pregnancies occurred among women married at the time of conception. Also, most *unwanted* pregnancies occurred among women whose family income was from a job or business (57.2%) and women who receive their prenatal care from a private medical doctor (54.1%). Although *unwanted* pregnancies are a common occurrence in all social and economic groups, there are populations that should be recognized as being at higher risk for *unwanted* pregnancy and its serious consequences.

Table 1. Distribution of Unwanted Pregnancy Resulting in Live Birth by Selected Demographic Characteristics

Maternal Characteristics	Percent	C.I.
Education[1]		
<12 Years	21.7	17.5-26.0
12+ Years	78.3	74.0-82.5
Race		
White	70.7	66.3-75.1
African-American	18.0	14.0-21.9
Native American	9.9	7.3-12.6
Other*	1.4	0.4-2.5
Marital Status		
Single at Conception	47.5	42.8-52.1
Married at Conception	52.5	47.9-57.2
Source of Income		
Job/Business	57.2	52.5-61.8
Welfare	40.7	36.0-45.3
Others	2.1	0.8-3.5
Prenatal Care Location		
Hospital	19.6	15.6-23.5
Health Department	11.5	8.2-14.8
Private MD	54.1	49.3-58.8
IHS	7.3	5.0-9.6
Others	7.5	5.0-10.1
Federal Poverty Level		
≤(100% FPL	50.4	45.5-55.6
100%-185% FPL	27.2	22.7-31.4
≥(185% FPL	22.4	18.5-26.4
Age		
≤(17	4.7	2.5-6.8
18-19	12.1	8.9-15.4
20-24	28.2	24.1-32.4
25-29	23.5	19.7-27.3
30-34	19.9	16.4-23.3
(35	11.6	9.0-14.3
Previous Births		
None	28.0	23.6-32.4
One	21.3	17.5-25.1
Two	27.4	23.4-31.5
Three	13.4	10.1-16.7
Four or More	9.9	7.1-12.7
Prenatal Care or Delivery Paid by Medicaid		
Neither	48.7	44.2-53.3
Either	51.3	46.7-55.8

CI=95% Confidence Interval
[1] Excludes mother < age 19
*cell size <20

PRAMS is a population-based survey of Oklahoma women with a recent delivery. Analysis weights were applied to adjust for selection probability and non-response. By using weighted analysis, researchers can make strong statements about the preconception and perinatal periods for the entire population of women in Oklahoma delivering a live birth. Thus, state-specific decisions on policy and program development can be made. A stratified systematic sampling approach is used to select approximately 200 new mothers each month from the state's live birth registry. Up to three mailed questionnaires are used to solicit a response. Telephone interviews are attempted for non-respondents. Data for this report reflect live births occurring between April 1988 and March 1995. The response rate was 71%. This analysis includes information collected from 11,750 mothers. The following are the sample sizes for the questions used in this analysis: Intention of Pregnancy 10,871; Education among mothers age 19 or older 9,422; Race 10,711; Marital status at conception 10,734; Income source 10,669; Prenatal care location 10,302; Federal Poverty Level 8,893; Mother's age 10,871; Parity 10,028; Prenatal care payment source 10,431; Physical violence 10,610; Drug use among associates 10,622; Divorce or separation 10,623. All data represent state estimates.

Who is most likely to have an unwanted pregnancy?

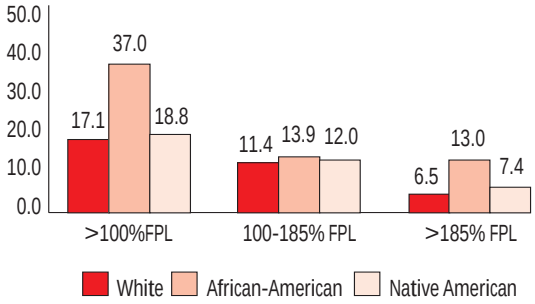
Several factors are known to be associated with live births resulting in *unwanted* pregnancies. Some of these factors include being unmarried, low-income or age 35 or older.[1] Understanding these factors will help prioritize services, such as family planning, where they are most needed and wanted.

There was a statistically significant association between living in poverty and having an *unwanted* pregnancy resulting in a live birth. Among Oklahoma women delivering a live birth, 20% of those living at or below the Federal Poverty Level had an *unwanted* pregnancy as compared to only 6.8% of women living at or above 185% of the Federal Poverty Level (see Table 2).[4] Thus, women living at or below the Federal Poverty Level were nearly three times as likely to have an *unwanted* pregnancy as women living at or above 185% of the Federal Poverty Level.

Besides income, age was also associated with having an *unwanted* pregnancy resulting in a live birth. Unlike mistimed pregnancies, which were most likely to occur among younger women, *unwanted* pregnancies were most likely to occur among women age 35 or older.[2] In fact, women age 35 or older were more than twice as likely to have an *unwanted* pregnancy as a woman age 17 or younger (see Table 2).

Although complicated by poverty, race was also associated with *unwanted* pregnancy. African American women were twice as likely as white women to deliver a live birth resulting from an *unwanted* pregnancy. African-American women were also 2.2 times more likely to live in poverty than white women. Nonetheless, racial differences existed among women below poverty. Almost four out of every ten (37%) African-American women living in poverty had a live birth resulting from an *unwanted* pregnancy. No significant racial differences were observed in women above poverty (see Figure 3).

Figure 3. Percentage of Unwanted Preganancy by Poverty and Race



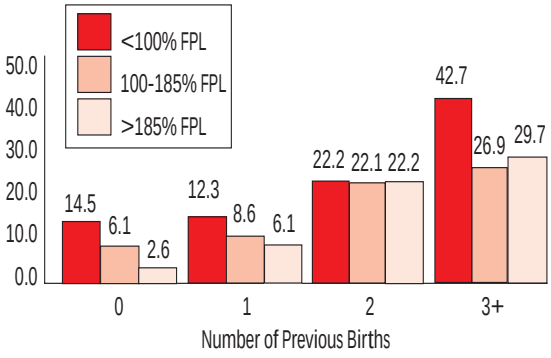
A woman's parity or number of previous births was also associated with delivering a live birth resulting from an *unwanted* pregnancy. Women with four or more previous births were almost six times more likely to have an *unwanted* pregnancy than women with no previous births (see Table 2). Furthermore, regardless of the number of previous births, the percentage of women with an *unwanted* pregnancy increased as the mother's income decreased. For example, 14.5% of women with no previous births and incomes below poverty had an *unwanted* pregnancy as compared to only 2.6% of women at or above 185% of poverty with an *unwanted* pregnancy (see Figure 4). However, for women with at least one previous birth, as the number of previous births increased so did the likelihood

Table 2. Rate of Unwanted Pregnancy Resulting in Live Birth by Selected Demographic Characteristics

Maternal Characteristics	Percent	C.I.
Federal Poverty Level		
≤(100% FPL	20.0	17.4-22.6
100%-185% FPL	11.9	9.8-14.0
≥(185% FPL	6.8	5.5-8.0
Age		
(17	11.3	6.3-16.2
18-19	13.9	10.1-17.6
20-24	11.4	9.6-13.3
25-29	10.1	8.4-11.9
30-34	13.8	11.4-16.3
≥35	23.2	18.3-28.1
Race		
White	10.9	9.9-12.0
African-American	24.7	19.4-30.1
Native American	14.0	10.4-17.6
Other*	11.5	3.4-19.6
Source of Income		
Job/Business	9.4	8.3-10.4
Welfare	22.0	19.0-24.9
Others	15.2	6.3-24.1
Previous Births		
None	8.1	6.6-9.5
One	8.0	6.5-9.5
Two	21.8	18.5-25.0
Three	30.1	23.6-36.7
Four or More	46.7	36.9-56.5
Education[1]		
<12 Years	15.2	12.4-17.9
≥(12 Years	11.6	10.5-12.7
Marital Status		
Single at Conception	17.5	15.3-19.8
Married at Conception	9.8	8.7-10.9

CI=95% Confidence Interval
[1] Excludes mother < age 18
*cell size <20

Figure 4.



of having an *unwanted* pregnancy. Simply, by a woman's third birth her financial status becomes insignificant. At least 22% of third births were *unwanted* pregnancies, regardless of poverty status.

Besides socio-demographic differences, there are behavioral and lifestyle characteristics associated with *unwanted* pregnancy resulting in a live birth. Women who were single at conception were two times more likely to have an *unwanted* pregnancy than women married at the conception of the pregnancy. Nevertheless, almost 10% of married women had an *unwanted* pregnancy and, as discussed earlier, more than half of *unwanted* pregnancies occurred among married women (see Table 2). Also, women who were abused or involved in a physical fight in the 12 months before delivery were two times more likely to have an *unwanted* pregnancy (11.0% vs 25.3%).[5] Women who were separated or divorced from their husband or partner in the 12 months before delivery were almost two times more likely to have an *unwanted* pregnancy (10.8% vs 20.6%). And finally, women with someone close to them with a drug or alcohol problem were 1.6 times more likely to have an *unwanted* pregnancy as women who do not (11.2% vs 18.4%).

PRAMS findings, are limited because they do not determine why *unwanted* pregnancies occur, nor does PRAMS ask about the social, economic, or cultural influences associated with unwanted pregnancy. The racial differences seen in this data reflect a much larger, more complex set of variables, including barriers to contraceptive use, choices in carrying a pregnancy to term, and the interactions of these issues with cultural and socio-economic disparity.

Comments/Recommendations

Teen pregnancy, non-marital childbearing, and abortion are consuming issues that are discussed in the print and electronic media almost daily. In contrast, there is little exposure for the almost invisible issue of mistimed or *unwanted* pregnancy. This study has identified the extent and magnitude of *unwanted* pregnancies carried to term in Oklahoma; it does not include *unwanted* pregnancies that end in induced abortions.

Family planning services are acknowledged as one of the most cost effective programs to prevent *unwanted* pregnancy in all socio-economic groups. Proposals for expanding health coverage for the benefit of children up to 185% of poverty should not only include prenatal care services but should include services designed to prevent *unwanted* pregnancies. Currently only women at less than 50% of the Federal Poverty Level are covered by Medicaid for family planning services.

In addition to the present study, two recent reports have sought to bring visibility to mistimed and *unwanted* pregnancy. In 1995 the Institute of Medicine (IOM), in a landmark report entitled *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families*, presented a compendium of research and recommendations.[1] The IOM report concludes that reducing unintended pregnancy will require "a new national understanding about this problem" and a "new consensus that pregnancy should be undertaken only with clear intent."[1]

Referencing this compelling data and drawing from the work of the IOM report *The Best Intentions*, the Oklahoma State Board of Health adopted policy in 1996 that "Oklahoma families be strengthened by supportive services that decrease the percent of pregnancies that are unintended and *unwanted*."[6] Further, in the same statement, the Board issued challenges to the people of Oklahoma, the Oklahoma State Legislature, local communities, and the media to address this issue.[6] Their statement included the following challenges:

- improve the knowledge of all Oklahomans regarding contraception and reproductive health
- provide $4.5 million in new and ongoing state funding for family planning services
- provide accessible services to reduce *unwanted* pregnancies from approximately 6,000 per year to 4,200 per year by the year 2000
- develop ownership and leadership within the media community for the concept of family planning as prevention as it relates to other social and health issues
- develop community task forces and identify plans in local areas to address unintended and *unwanted* pregnancy

Given the serious consequences of *unwanted* pregnancy, the researchers of unintended pregnancy recommend that society should adopt a new social norm that "All pregnancies should be intended—that is, they should be consciously and clearly desired at the time of conception" and that consensus be built around this issue by "educating the public about the major social and public health burdens of unintended pregnancy."[1]

[1] Brown, S and Eisenberg, L, Eds. The Best of Intentions: Unintended Pregnancy and the Well-Being of Children and Families. Institute of Medicine, National Academy Press. Washington DC 1995.
[2] Chen W, Lorenz R, Blose D, Stinchcomb R, DePersio S. Unintended pregnancy among live births: Part 1. Oklahoma PRAMS-Gram, Vol 3, No. 3, November 1993.
[3] Morbidity and Mortality Weekly Report, Vol 41, No. 50.
[4] 1996 Federal Poverty Level for a family of four was $15,150.
[5] Blose D, Chen W, Lorenz R, DePersio S, Dowe T, Hudspeth J. Pregnancy intention and physical violence. Oklahoma PRAMS-Gram, Vol 4, No. 4, December 1994.
[6] Oklahoma State Board of Health, Policy on Unintended Pregnancy, November 21, 1996.

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