

PRAMS PERSPECTIVES

A Pregnancy Risk Assessment Monitoring System Quarterly Report V.3 No.2

Breastfeeding In Utah

Background

Providing nourishment for infants presents today's women with several choices. Although information on breastfeeding's positive health outcomes for mothers and babies has been published and discussed for years, breastfeeding rates in the United States remain low.¹

Current literature discusses several barriers and obstacles that affect the initiation and duration of breastfeeding among mothers today: maternal employment² socioeconomic status, smoking, and the impact of social support and breastfeeding outcomes.³ While exploring some of the most popular experiences mothers face while deciding, beginning and continuing to breastfeed, the purpose of this newsletter is to provide data and information about interventions and support that can positively impact breastfeeding practices right here in our community.

The authors of one study suggest that prenatal classes do not adequately prepare women for breastfeeding and

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 2000. A total of 2303 mothers were selected to participate in the project and 1655 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.

many who experienced problems did not feel they received adequate advice and support in addressing problems.³

Research also suggests that discussion with a health care provider, peer support and printed educational materials are imperative to improving initiation and duration rates among many populations. The need for detailed information and suggestions, with accessible means of support is essential to achieving higher breastfeeding rates. Research supports the theory that health care providers can positively impact the feeding plans of mothers through support, referrals and continued follow up.³

Increasing the rates of breastfeeding initiation and duration is a national health objective and one of the Healthy People 2010 goals developed by the U.S. Department of Health and Human Services. The current breastfeeding goals for Healthy People 2010 are that 75% of women breastfeed in the early postpartum period (initiation), 50% of women remain breastfeeding at 6 months and 25% of women remain breastfeeding at one year.⁴

The Utah Department of Health Reproductive Health Program supports these goals and seeks to impact the community of Utah through outreach and dissemination of data with the hope of improving the health of mothers and babies.

Methodology

The data presented in this newsletter focus on identifying characteristics of Utah women who breastfeed and reasons women gave for not initiating or for discontinuing breastfeeding.

Utah PRAMS and birth certificate data from 2000 were used to determine the prevalence of breastfeeding and the reasons for non-initiation and discontinuation. PRAMS respondents were asked the following questions regarding their experience with breastfeeding during their most recent pregnancy (note: questions 48 and 51 respondents were asked to check all that apply).

Initiation Questions:

47. Did you ever breastfeed or pump breast milk to feed your new baby after delivery?
48. What were your reasons for not breastfeeding your new baby? (Check all that apply)
- I had other children to take care of
 - I had too many household duties
 - I did not like breastfeeding
 - I did not want to be tied down
 - I was embarrassed to breastfeed
 - I went back to work or school
 - My husband or partner did not want me to breastfeed
 - I wanted my body back to myself
 - Other – Please tell us:

Duration Questions:

49. Are you still breastfeeding or feeding pumped milk to your new baby?
51. What are your reasons for stopping breastfeeding? (Check all that apply)
- My baby had difficulty nursing
 - Breast milk alone did not satisfy my baby
 - I thought my baby was not gaining enough weight
 - My baby became sick and could not breastfeed
 - My nipples were sore, cracked, or bleeding
 - I thought I was not producing enough milk
 - I had too many other household duties
 - I felt it was the right time to stop breastfeeding
 - I became sick and could not breastfeed
 - I went back to work or school
 - My husband or partner wanted me to stop breastfeeding
 - I wanted or needed someone else to feed the baby
 - Other – Please tell us:

Chi-square testing was used to identify significant barriers to initiation and duration of breastfeeding. It is important to note that because the PRAMS survey is completed postpartum, there may be some recall bias from mothers when answering these questions. It should also be noted that the average time in which a mother completes the survey is between 2-4 months postpartum, thus timing of the receipt of the survey could affect duration rates reported.

Prevalence of Breastfeeding In Utah

Initiation

Utah meets and exceeds the Healthy People 2010 Goal for initiation rates with 87.7% of Utah PRAMS respondents reporting having breastfed at one time.

Of the 87.7% women who reported initiating breastfeeding, 76.3% reported their prenatal care provider spoke with them about breastfeeding. Women who discussed breastfeeding with their health care provider were significantly more likely to initiate breastfeeding than those who did not. As research emphasizes increased confidence of a mother through office visit discussions impacts her decision to breastfeed.⁵

Table 1 shows the percentage of women with live births who reported ever breastfeeding or still breastfeeding by selected maternal characteristics. Each subgroup listed in Table 1 had significantly different proportions, except where noted.

Table 1. Percentage of Women with Live Births who Reported Ever Breastfeeding or Still Breastfeeding by Selected Maternal Characteristics

Characteristics	Percentage of Women Who Ever Breastfed¹	Percentage of Women Breastfeeding When Survey Completed¹
Total Birth Population	87.7 ± 2.2	65.9 ± 3.3
Maternal Age	NS*	
≤ 17	80.1 ± 22.4	3.4 ± 4.0
18 - 19	78.5 ± 12.8	31.8 ± 15.0
20 - 24	87.3 ± 4.0	63.1 ± 6.1
25 - 29	88.7 ± 3.5	70.8 ± 5.4
30 - 34	90.5 ± 4.4	73.7 ± 7.1
35 - 39	87.5 ± 9.2	78.7 ± 9.8
40 +	87.4 ± 15.6	51.1 ± 21.9
Education Level		
Less than High School	70.6 ± 9.4	33.2 ± 11.1
Completed High School	81.7 ± 4.7	57.1 ± 6.5
Some College	93.4 ± 2.8	69.9 ± 5.6
College Graduate	97.2 ± 2.3	83.6 ± 4.7
Race		
White	87.9 ± 2.3	66.8 ± 3.5
Other than White	82.7 ± 3.4	51.9 ± 4.7
Marital Status		
Married	89.5 ± 2.2	71.4 ± 3.3
Unmarried	78.8 ± 7.2	34.5 ± 9.5
Ethnicity	NS	
Hispanic	80.4 ± 8.0	45.4 ± 11.1
Non-Hispanic	88.7 ± 2.3	68.8 ± 3.4
Intendedness of Pregnancy		
Intended	89.6 ± 2.4	71.5 ± 3.8
Unintended	83.8 ± 4.7	55.2 ± 6.5
Annual Household Income		
< \$15,000	83.9 ± 5.4	49.2 ± 8.1
\$15,000 - 35,000	88.4 ± 3.6	67.8 ± 5.7
\$35,000 - 50,000	87.3 ± 5.6	72.1 ± 7.2
> \$50,000	92.6 ± 3.4	74.9 ± 5.8
Health Insurance Coverage Before Conception²		
Yes	89.4 ± 2.4	69.7 ± 3.7
No	82.9 ± 5.1	53.7 ± 7.3
Medicaid Coverage Before Conception	NS	
Yes	76.3 ± 13.7	41.1 ± 18.8
No	88.1 ± 2.2	66.6 ± 3.4
Enrolled in WIC During Pregnancy?		
Yes	82.7 ± 5.0	52.2 ± 7.0
No	89.8 ± 2.3	71.4 ± 3.6
Prenatal Care (PNC) Payer		
Private/Group Insurance	89.8 ± 2.5	69.8 ± 3.8
Medicaid	80.5 ± 5.7	56.8 ± 7.5
Other/Self Pay	92.0 ± 5.2	60.3 ± 12.3

Table 1. Percentage of Women with Live Births who Reported Ever Breastfeeding or Still Breastfeeding by Selected Maternal Characteristics, *continued*

Characteristics	Percentage of Women Who Ever Breastfed¹	Percentage of Women Breastfeeding When Survey Completed¹
Total Birth Population	87.7 ± 2.2	65.9 ± 3.3
Delivery Payer		
Private/Group Insurance	90.3 ± 2.5	70.1 ± 3.8
Medicaid	82.4 ± 4.9	54.6 ± 7.1
Other/Self Pay	82.2 ± 10.9	67.6 ± 14.7
Partner Associated Stress³		
Yes	82.8 ± 4.8	54.8 ± 6.9
No	89.7 ± 2.4	70.0 ± 3.7
Traumatic Stress⁴		
Yes	77.1 ± 7.3	46.4 ± 10.1
No	89.7 ± 2.2	69.1 ± 3.4
Financial Stress⁵	NS	
Yes	88.4 ± 2.8	62.6 ± 4.5
No	86.9 ± 3.5	70.1 ± 4.9
Postpartum Depression	NS	
Not Depressed	88.9 ± 3.8	70.1 ± 5.8
Slightly Depressed	88.8 ± 3.3	67.8 ± 4.9
Moderately Depressed	84.3 ± 5.9	59.0 ± 8.6
Very Depressed	81.8 ± 11.9	55.3 ± 18.0
Very Depressed - Needed Help	86.4 ± 15.2	42.1 ± 23.1
Previous Live Births		
None	90.8 ± 3.5	58.6 ± 5.9
1 - 4	85.6 ± 3.0	69.6 ± 4.2
5 or more	93.0 ± 7.5	78.1 ± 14.7
Drank 3 months before pregnancy		
Yes	79.9 ± 6.0	48.7 ± 7.9
No	90.0 ± 2.3	70.9 ± 3.6
Smoked 3 months before pregnancy		
Yes	71.2 ± 8.7	32.8 ± 10.0
No	90.9 ± 2.0	70.6 ± 3.4
Smoked last 3 months of pregnancy		
Yes	70.3 ± 12.2	26.3 ± 13.2
No	89.4 ± 2.2	68.8 ± 3.4
Smoking Now		
Yes	65.7 ± 11.0	19.2 ± 9.7
No	90.2 ± 2.1	69.9 ± 3.3

¹ Plus or minus 95% confidence interval

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

³ Separation or divorce, arguing with partner, or partner not wanting pregnancy

⁴ Jail, physical fight, being homeless, close person with drug or alcohol use

⁵ Loss of job for woman or partner, unpaid bills, move to a new address

* Not statistically significant

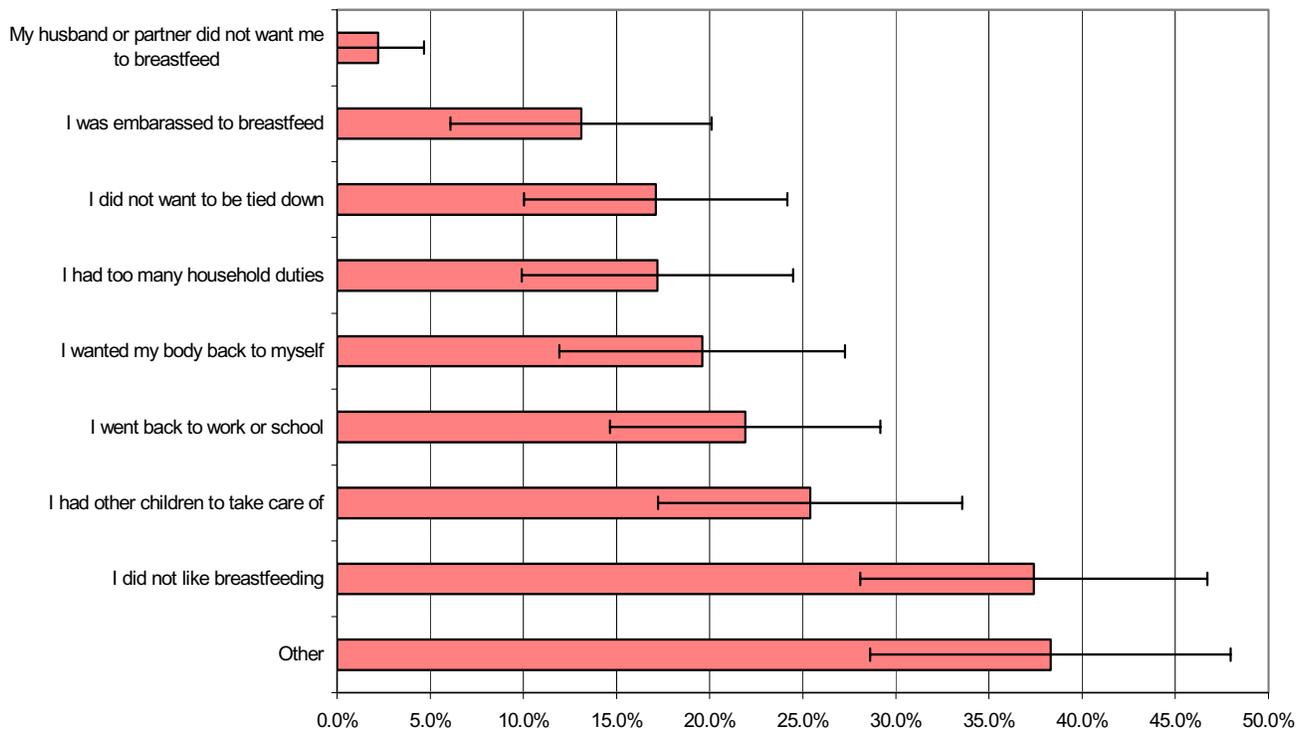
The populations listed below reported statistically significant differences in breastfeeding initiation with rates that differed from the general population by more than 10% (Table 1):

- Less than high school education
- Experienced traumatic stress during the pregnancy
- Smoked in the three months before pregnancy
- Smoked in the last three months of pregnancy
- Smoke now

Smoking has been identified in recent a meta-analysis as increasing the risk of early weaning. This analysis suggested that “The effect of smoking on breastfeeding duration may be confounded by self-selection in that smoking mothers may be less health conscious and consequently, less likely to breastfeed.”⁶

Figure 1 illustrates the percentage of women who reported reasons for never initiating breastfeeding. The choice “ I did not like breastfeeding” ranked 2nd highest at 37.3%, with the choice “Other” leading at 38%. The choice “My husband or partner did not want me to breastfeed” ranked lowest at 2%. “Other” included a wide variety of reasons mothers listed indicating that this issue is very unique and specific to the individual.

Figure 1. Reasons Indicated by PRAMS Respondents for Never Initiating Breastfeeding, 2000 Utah PRAMS Data



Duration

The Healthy People 2010 goals for duration are 50% at six months and 25% at one year. Of the 2000 Utah PRAMS respondents 65.9% reported still breastfeeding at the time they completed the survey, which is approximately 4 months postpartum. Of the women who completed the survey when their infant was 6 months or older (approximately 7% of respondents), 47.4% reported they were still breastfeeding.

Publishing information

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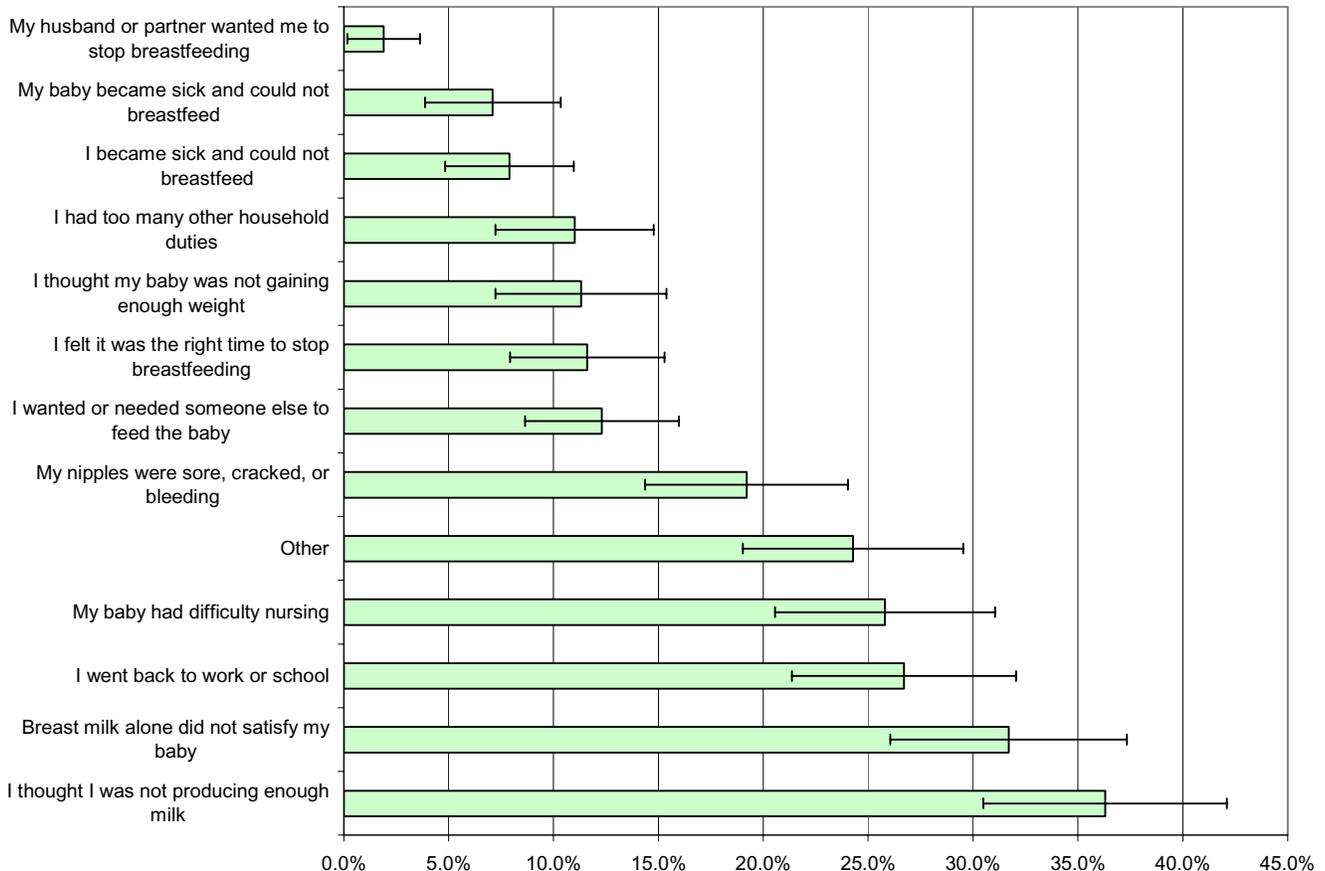
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Table 1 illustrates the characteristics of women that are statistically significant related to discontinuation of breastfeeding:

- Younger Age (≤ 17 , and 18-19)
- Less than high school education
- Other than white race
- Hispanic ethnicity
- Unmarried
- Unintended pregnancy
- Medicaid coverage before conception
- WIC enrollment during pregnancy
- Postpartum depression
- Smoking (last three months of pregnancy and presently smoking)
- Reported partner associated or traumatic stress during the pregnancy.

Figure 2 illustrates the reasons PRAMS respondents indicated for not continuing to breastfeed. It should be noted that, “I thought I was not producing enough milk” was the number one reason many women stated they did not continue to breastfeed their babies, with 36.3% of PRAMS respondents choosing this reason as an option. Current studies communicate a similar message. In the article, “Factors Influencing Continuation of Breastfeeding in a Cohort of Women”, the findings state that low milk supply was in the top five reasons women listed for why they stopped breastfeeding.³ Women are also returning to work sooner, making establishing an adequate milk supply a leading concern. Mothers who use breast pumps or hand express are more likely to nurse longer than women who don’t.² However knowing how to effectively manage and maintain the breastfeeding relationship once a woman returns to work has become a challenging obstacle.

Figure 2. Reasons chosen by PRAMS respondents for discontinuing Breastfeeding, 2000 Utah PRAMS Data



Summary/Recommendations

The World Health Organization states that “breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for the health of mothers. As a global public health recommendation, *infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health*. Thereafter, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods while breastfeeding continues for up to two years of age or beyond. Exclusive breastfeeding from birth is possible except for a few medical conditions, and unrestricted exclusive breastfeeding results in ample milk production”.⁷

Current literature suggests that “prenatal classes do not adequately prepare women for breastfeeding”³ and many who experienced problems did not feel they received adequate advice and support in addressing problems. However this study went on to suggest that the potential to improve rates of breastfeeding is there by assisting mother in “creating realistic expectations about breastfeeding, and ensuring access to consistent information and ongoing support from partners, family, friends, professionals, and the community.”³

Mother’s perceptions have been cited as a large barrier to initiation and duration of breastfeeding, thus adequate support beyond prenatal courses is necessary to combat this issue. When health care providers offer encouragement and support, breastfeeding rates may be increased and duration rates extended.

Health care providers must be prepared to support women with updated information and referrals when necessary. Breastfeeding is natural, but it is a learned behavior. Theoretically most women are capable of breastfeeding their baby providing they have accurate and accessible information.⁷

Support from family, community and the health care system is essential. The World Health Organization reports that the health care system can provide support through (*partial list*); skilled counseling, supportive hospital practices, increasing antenatal care and education about breastfeeding, and promoting good nutrition for pregnant and lactating women.⁷

The American Academy of Pediatrics (AAP) states, “Breastfeeding ensures the best possible health as well as the best developmental and psychosocial outcomes of the infant. Enthusiastic support and involvement of pediatricians in the promotion and practice of breastfeeding is essential to the achievement of optimal infant and child health, growth, and development.”⁸

Although breastfeeding is generally considered an obstetric issue, pediatric providers are very aware of how the benefits of breast milk directly affect the population they serve. Since pediatricians are in contact with mothers during routine well-baby checkups, these visits provide the opportune times to consult about any breastfeeding issues that may arise, providing referrals and resources if necessary.

Pediatricians can provide an optimal environment for breastfeeding in the following ways (*partial list*)⁸:

- Considering of published evidence for improved outcomes in breastfed infants
- Becoming knowledgeable and skilled in the physiology and clinical management of breastfeeding
- Working with the obstetric community to ensure women receive adequate information throughout the perinatal period
- Promoting hospital policies and procedures that facilitate breastfeeding
- Becoming familiar with breastfeeding resources
- Promoting breastfeeding as a normal part of daily life
- Promoting breastfeeding education as a routine component of provider education

Enclosed you will find a printer friendly Utah PRAMS Breastfeeding Resource Guide*. This guide was produced and researched by the authors of this newsletter. Internet links, breastfeeding services/rentals, and reading materials will all provide a great introduction to the world of breastfeeding. For more information on breastfeeding and other maternal child health issues please visit our website www.health.utah.gov/rhp . **Inclusion of resources does not imply endorsement by The Utah Department of Health.*

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