



# ARKANSAS PRAMS UPDATE

PREGNANCY RISK ASSESSMENT MONITORING SYSTEM

MAY 2009

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## Breastfeeding in Arkansas by Race/Ethnicity, 2005-2006

### Introduction

Breastfeeding is considered by national and international health experts to be the most beneficial method to feed infants, because of its positive effect on their health and wellbeing. The American Academy of Pediatrics (AAP) has recommended that infants be breastfed for at least the first year of life and as long as mutually desired by mother and child.<sup>1</sup>

For infants, the benefits of breastfeeding include:<sup>2</sup>

- Lower risk of infectious illness and long-term and short-term diseases such as diarrhea, lower respiratory infection, ear infections, and bacterial meningitis.
- A decreased risk of infant death.
- Fewer visits to the doctor's office, fewer prescriptions, and fewer days in the hospital.

The benefits of breastfeeding for the mother may include:<sup>2</sup>

- Less risk of having ovarian and premenopausal breast cancer
- Less bleeding after childbirth
- Lower risk of hip fractures after menopause
- A healthier relationship between the mother and infant
- Less money spent for formula



### SUMMARY

- In 2005 and 2006, 65% of new mothers in Arkansas began breastfeeding. The Healthy People 2010 target is 75%.
- Black mothers (39%) were less likely than White (67%) or Hispanic mothers (90%) to breastfeed.
- Overall, breastfeeding increased as the age and educational level of the mother increased.
- Compared to their respective counterparts, breastfeeding rates were higher for women who:
  - › were married
  - › were not on Medicaid or WIC
  - › had intended pregnancies
  - › had no previous births
  - › received prenatal care in first trimester

The *Healthy People 2010* objective is for 75% of mothers to breastfeed their baby in the early period after childbirth.<sup>3</sup> For 2005 and 2006, only 65% of Arkansas new mothers breastfed or pumped breast milk to feed their baby after delivery. Black women (39%) were much less likely than Hispanic (90%) or White women (67%) to breastfeed. Increasing the percentage of new mothers in Arkansas who breastfeed, as well as eliminating these differences, will require understanding the factors that research has shown are associated with whether a mother breastfeeds and how these factors vary by race and ethnicity.<sup>4,5</sup>

This *PRAMS Update* provides a descriptive overview of several of these factors for Arkansas women who had babies in 2005 and 2006.

## Method

This report uses data from the PRAMS survey for the years 2005 and 2006. During this period, 4,332 of the 5,741 surveys mailed to new mothers were completed for an unweighted response rate of 75.5%.

New mothers were asked in the survey, “Did you ever breastfeed or pump breast milk to feed your new baby after delivery?” A response of “Yes” is used as an indication that the mother did breastfeed in the early period after childbirth.

Prevalence rates and 95% confidence intervals for the breastfeeding indicators were computed using the SAS PROC SURVEYFREQ command. Survey responses were weighted to adjust for the sampling design, non-coverage, and non-response.

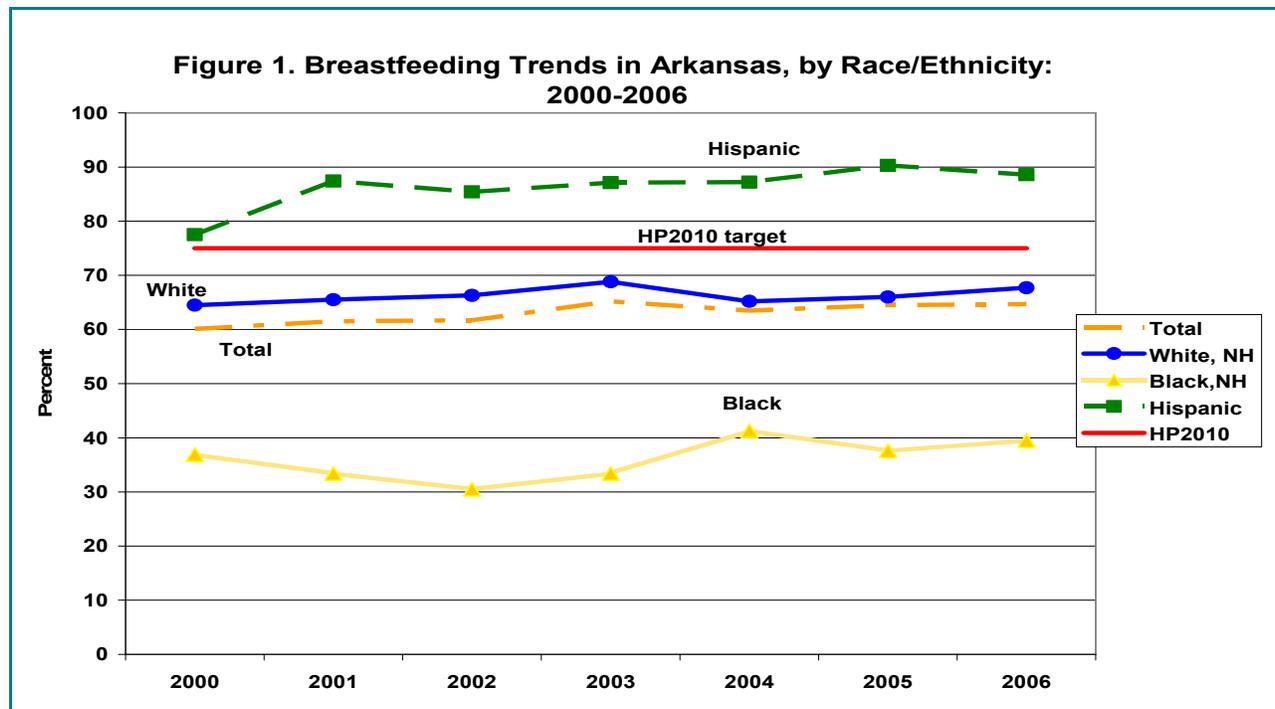
For this report, “White” and “Black” refer to White, non-Hispanic and Black, non-Hispanic mothers, respectively. “Hispanic” refers to mothers of any race whose ethnicity was identified as Hispanic. The Medicaid data refer to women whose prenatal care and/or delivery were paid for by Medicaid. As required by the Centers for Disease Control and Prevention (CDC), comments made by mothers are written verbatim with no corrections for spelling or grammar.

## Results

Table 1 in the appendix shows characteristics of the mothers in the 2005 and 2006 surveys. Table 2 shows breastfeeding rates with 95% confidence intervals for these characteristics. For background purposes, Figure 1 shows breastfeeding trends over the period from 2000 through 2006. Figures 2-12 show graphically various characteristics of women who ever breastfed or pumped breast milk for their infants based on race/ethnicity.

### Breastfeeding trends

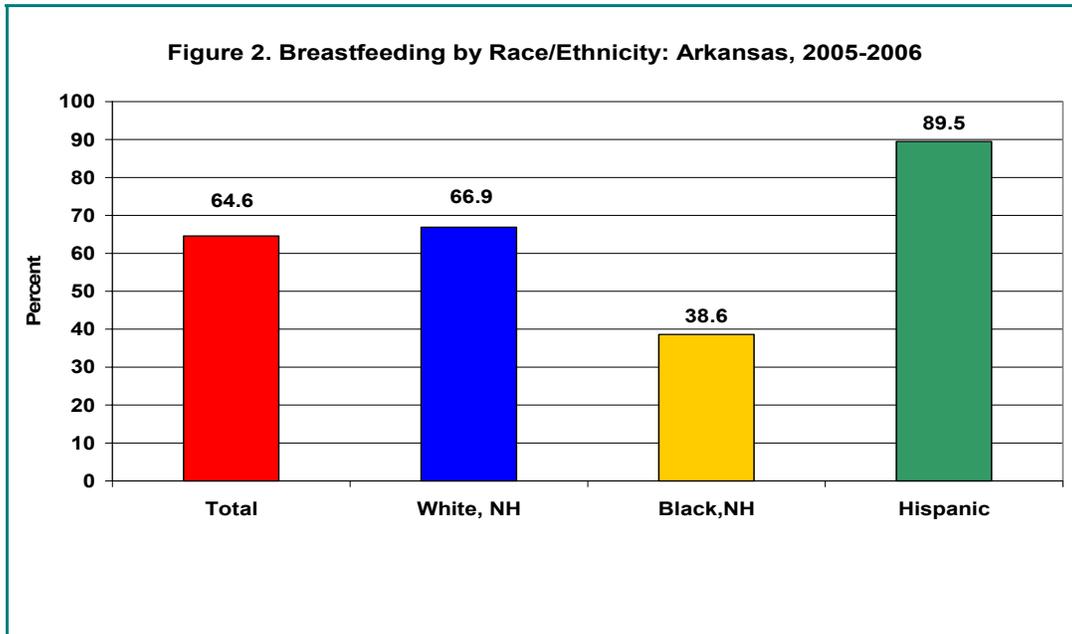
Except for Hispanic women, breastfeeding rates overall have remained fairly stable and below the Healthy People 2010 target. Breastfeeding rates for Black women have remained consistently well below the target.



## Race

*Hispanic and White women were much more likely than Black women to breastfeed.*

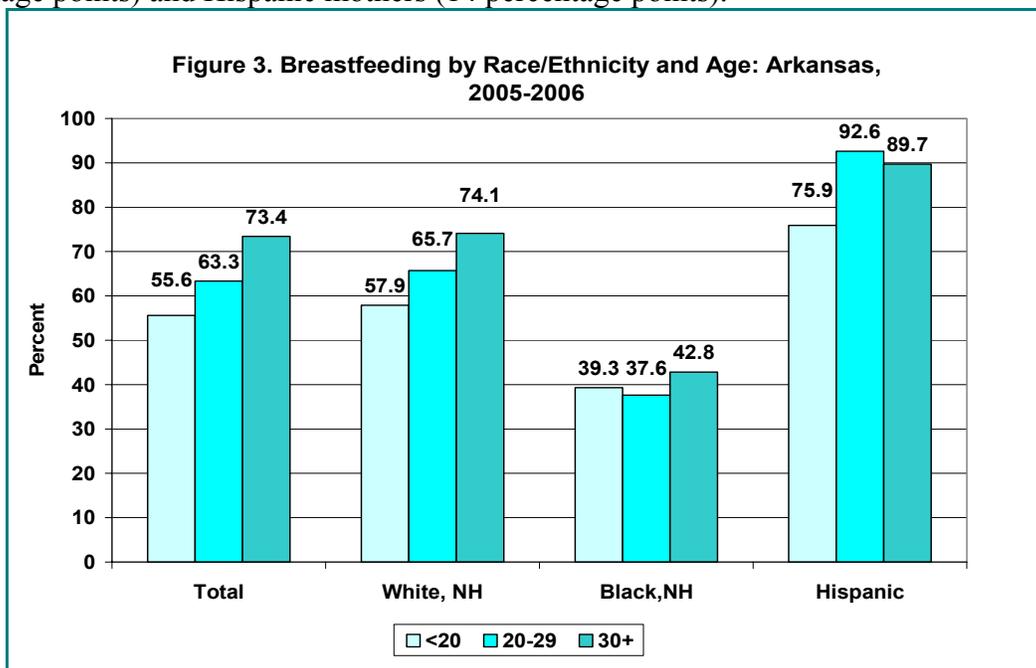
- About 90% of Hispanic women and 67% percent of White women breastfed after delivery, compared to just 39% of Black women.



## Age

*Overall, breastfeeding increased as the age of the mother increased. A similar pattern was true for White, Black, and Hispanic women.*

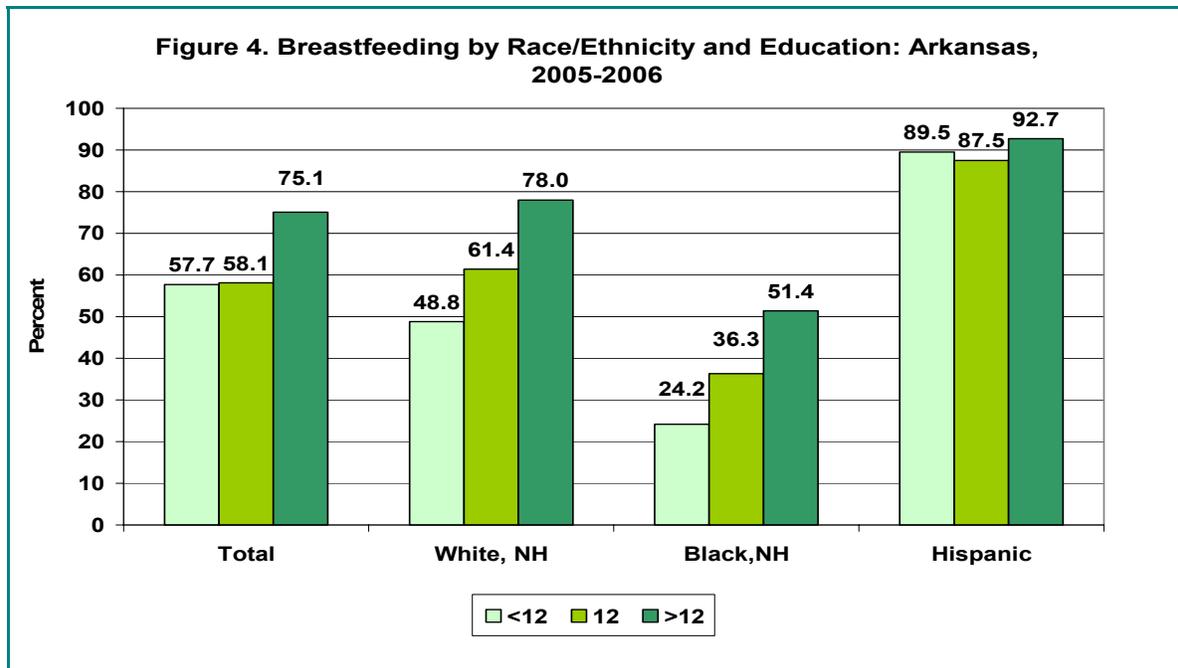
- The increase in the percentage of mothers breastfeeding from the youngest (less than 20 years) to the oldest mother was not as large for Black mothers (three percentage points) as it was for White (16 percentage points) and Hispanic mothers (14 percentage points).



## Education

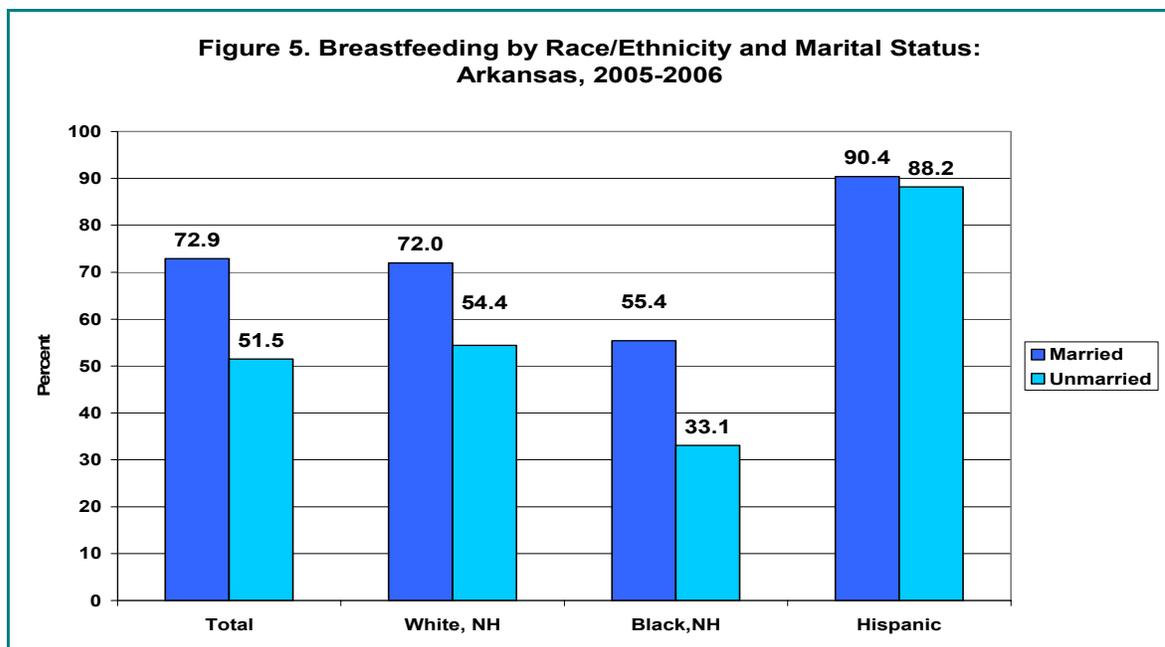
*Breastfeeding increased with years of education.*

- For White and Black mothers, there was a very noticeable increase in breastfeeding as the level of education increased. There was very little difference in the percentage of Hispanic women with less than 12 years of education and more than 12 years who breastfed.



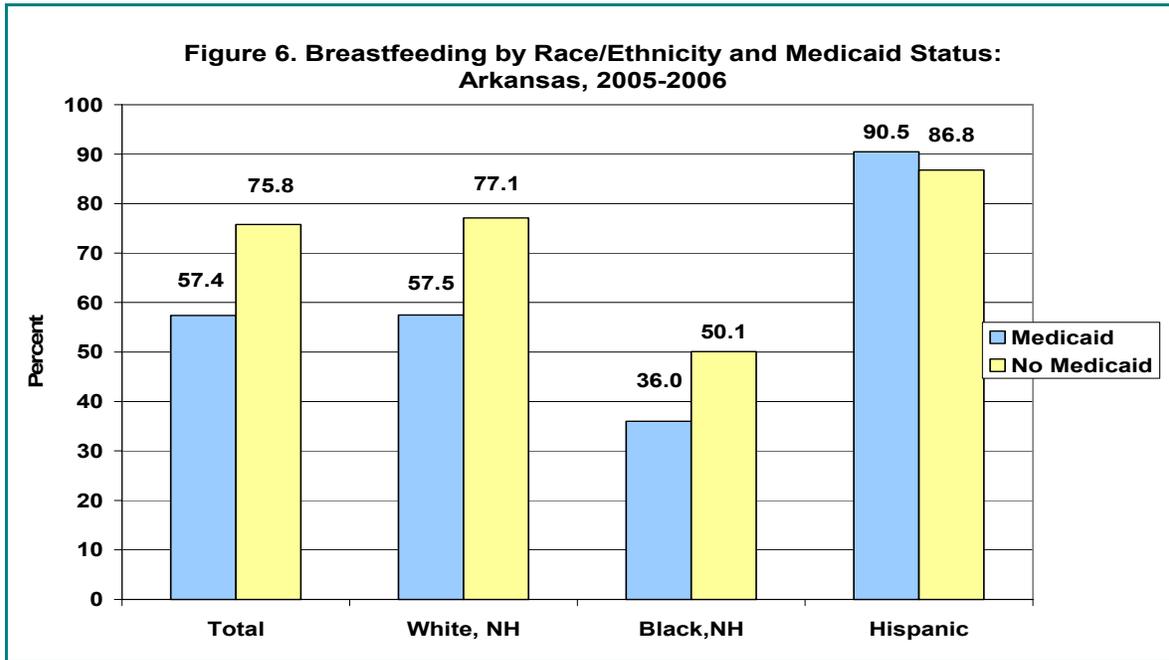
## Marital Status

*Married women were more likely than unmarried women to initiate breastfeeding.*



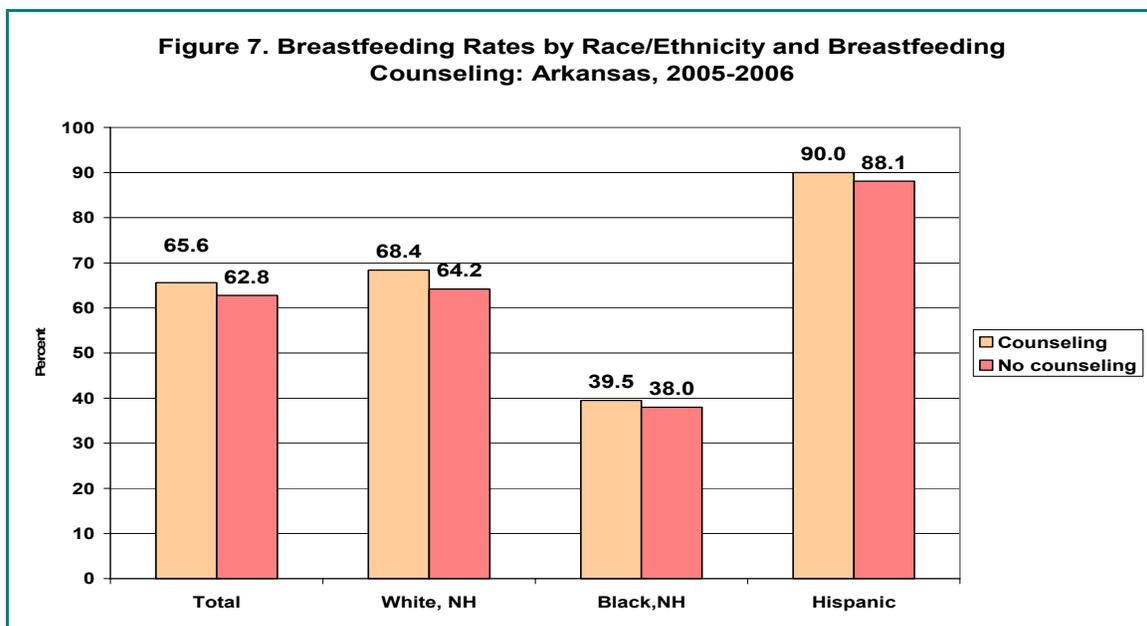
## Medicaid

*Except for Hispanic women, mothers receiving Medicaid were less likely to breastfeed than those mothers not on Medicaid.*



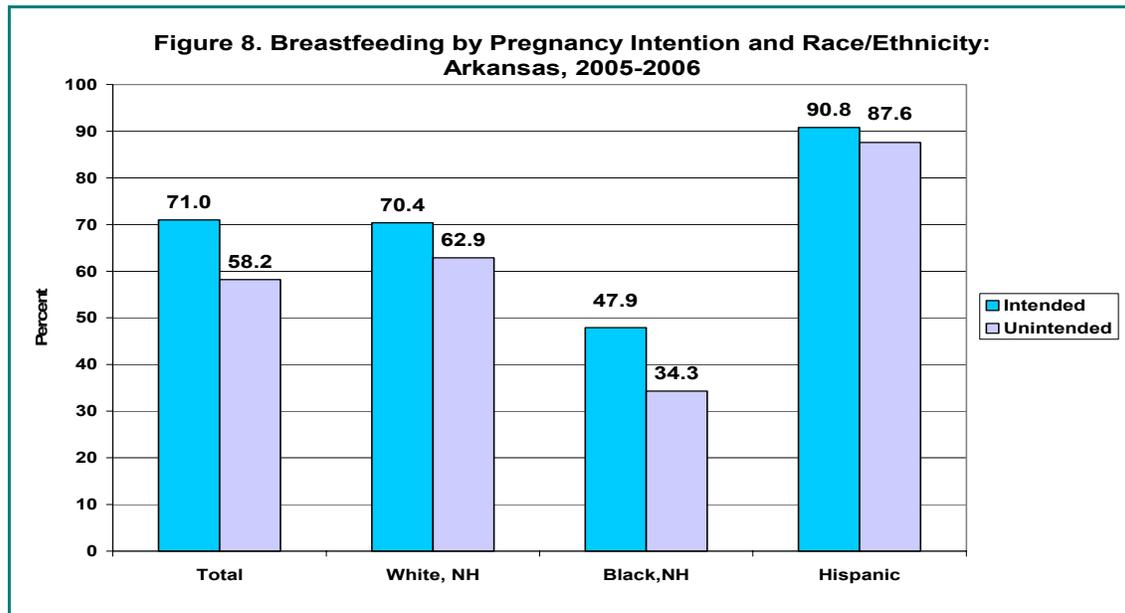
## Breastfeeding Counseling and Information

*Breastfeeding rates were not substantially higher for women who talked to a doctor, nurse, or healthcare worker during their prenatal visits than for those women who did not.*



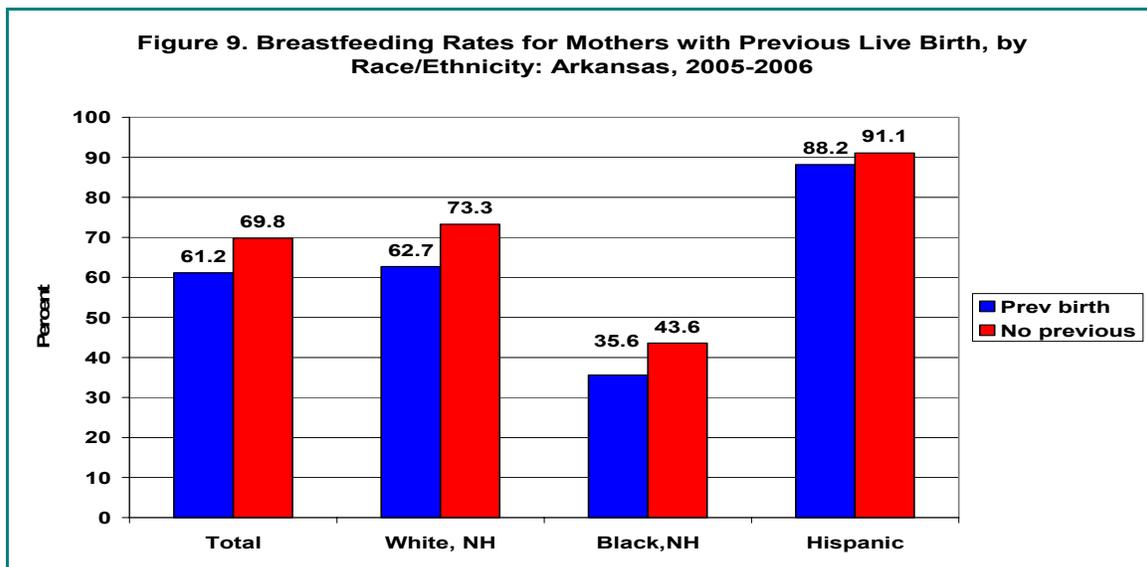
## Pregnancy Intention

For the state overall, women who had unintended pregnancies<sup>1</sup> were less likely than those with intended pregnancies to breastfeed.



## Previous Live Birth

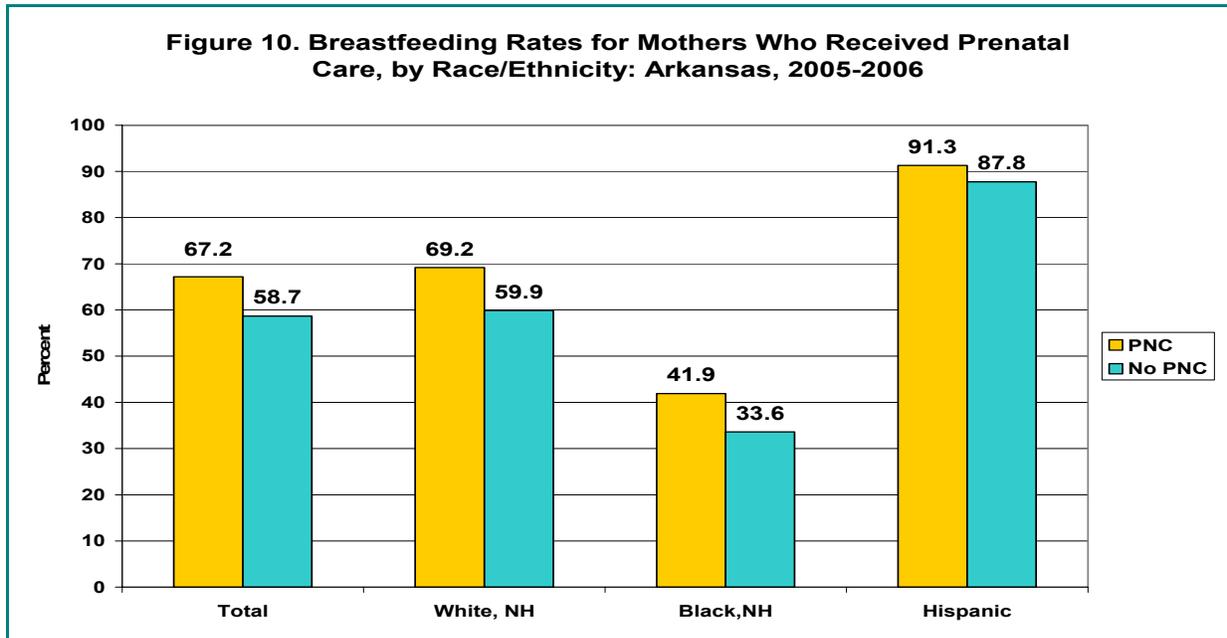
Mothers with no previous live births were more likely to breastfeed than those mothers who had a previous live birth.



<sup>1</sup> Women who responded, “I wanted to be pregnant sooner” or “I wanted to be pregnant then” were considered to have had an intended pregnancy. Mothers who responded “I wanted to be pregnant later” or “I did not want to be pregnant then or at any time in the future” were considered to have had an unintended pregnancy.

## Prenatal Care

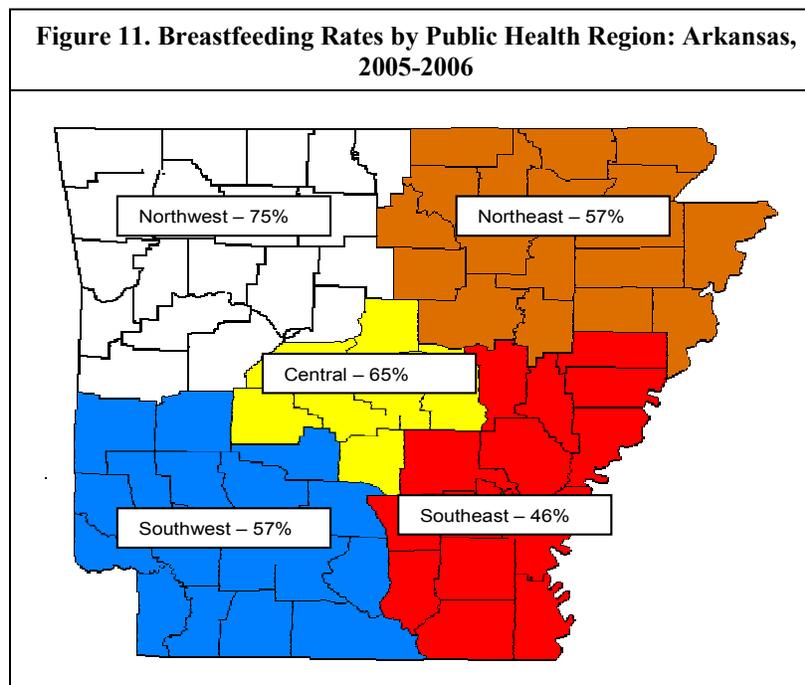
Mothers who received prenatal care in their first trimester were more likely to breastfeed than those mothers who received prenatal care after the first trimester or not at all.



## Public Health Region

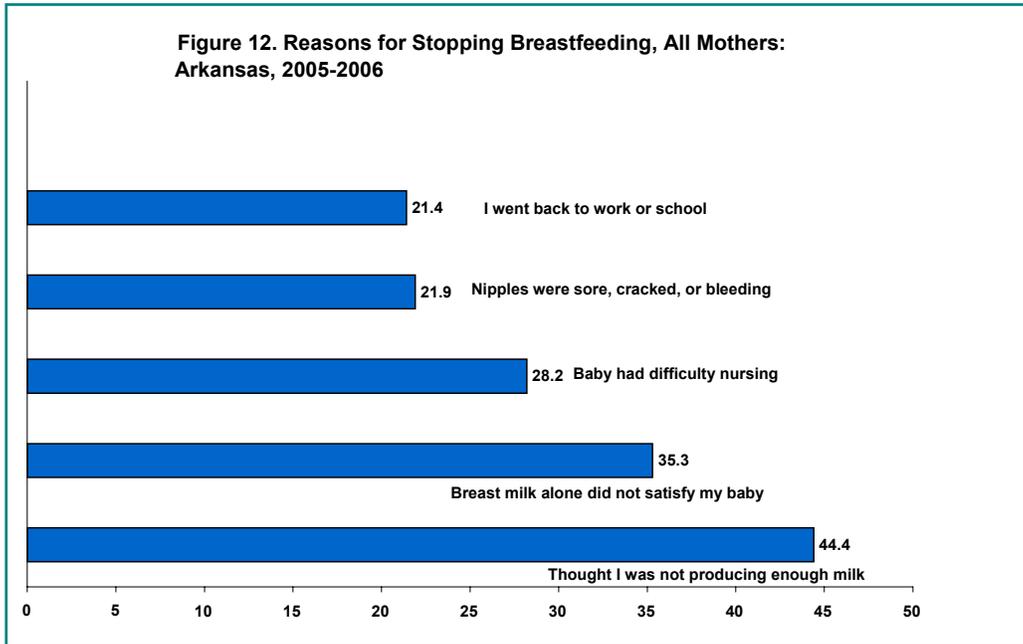
The percentage of women who breastfeed is higher in some areas of the state than in others.

- Figure 12 below shows breastfeeding rates for the state's Public Health Regions. The Northwest Region had the highest breastfeeding rate (75.1%) and the Southeast Region had the lowest (46.1%).



## Why Mothers Stop Breastfeeding

Mothers who said that they had ever breastfed or pumped milk to feed their new baby were also asked if they were still breastfeeding. The two most frequently given reasons for no longer breastfeeding were “I thought I was not producing enough milk” and “Breast milk alone did not satisfy my baby”.



## What moms told us about breastfeeding

“Breastfeeding is the best thing you can do for your baby. It needs to be stressed more to new mothers.”

“The Medela Breast Pump I received through the WIC program at the Health Department has been very helpful. Thank you.”

“We need help in Arkansas with breastfeeding. Nurses in the hospital need to take breastfeeding classes. I asked every nurse who came in my room to help me and none of them knew how. The lactation nurse only came one time and my baby was asleep. She never came back. I wanted to breastfeed really badly and I could not latch my baby on. I had read all the books, but without someone to physically help me, I couldn't do it. I pumped for 6 weeks but I never had help with pumping either. I am very disappointed with Arkansas' breastfeeding help. I am from Missouri and they have more programs there.”

“I think there should be more awareness on the breastfeeding to second and third time mothers. Due to the fact of assuming that one already knows, but things change, people mature and technology.

“I think hospitals and pediatricians don't encourage breastfeeding enough and should never give away free formula samples.”

“Breastfeeding is best. It bonds a mother and baby very close together. I would tell everyone don't be shame its a natural part of a healthy life for a baby.”

“I really think Arkansas needs to make Breastfeeding a huge goal for mothers. Have nurses or lactation con. be able to come to a mothers home for one on one support, call centers 24X7, just make BF more of an option than formula. I'm still BF, but only because I'm determined. Some really need a lot of support to let them know there doing great, a lot, a lot of encouragement!”

“Breastfeeding is best. When ever my first child was sick, the doctor didn't give him medicine. He just told me to keep breastfeeding him and it would get better. I breastfed for 2 years and he is hardly ever sick. I encourage everyone to breastfeed!”

“I would like to have drs. and nurses talk more about the importance of not smoking and eating healthy balanced meals during pregnancy. Also, we need clean places to feed babies (via breast feeding) in public. Why are there no Lactation Booths in women's restrooms in public places? Can you imagine how healthy babies would be? You could reduce WIC and simply ensure mothers get healthy meals.”

“I would just like to say I don't think mothers have any idea how important nursing their babies really is. I've nursed my son since he was about 10 minutes old and now almost 4 months later I still am. He has no cereal or formula at all and is amazingly healthy. It also helped me drop back to my normal size within a few weeks. More importantly, it is an amazing bonding experience!”



## Discussion

The Healthy People 2010 target of 75% of new mothers breastfeeding shortly after giving birth is currently far removed from reality in Arkansas. In 2005 and 2006, only 65% of new mothers in Arkansas breastfed or pumped breast milk to feed their babies. The only mothers meeting or exceeding the target were White, non-Hispanic women who had greater than a twelfth grade education (78%); women not on Medicaid (77.1%); and Hispanic women (90%), regardless of their characteristics. The mothers farthest from the target were Black, non-Hispanic mothers with less than a twelfth grade education (24.2%) or who had an earlier birth (35.6%). Black, non-Hispanic mothers most likely to breastfeed were those who were married (55.4%) or had greater than a twelfth grade education (51.4%). Table 1 in the appendix shows, however, that only 25% of Black mothers were married, compared to 71% of white mothers and 57% of Hispanic mothers. Also, only about one-third (31.9%) of Black mothers had greater than a twelfth grade education, compared to 45% of white mothers.

Overall, breastfeeding increased with age and education. Also, women who were married, not on Medicaid, had an intended pregnancy, had no previous births, had received prenatal care in the first trimester, and lived in the Northwest region of the state were more likely to breastfeed than their counterparts (Table 1). For all these indicators, the tendency for Black mothers to breastfeed was much less than for White or Hispanic mothers.

The current Arkansas PRAMS survey does not collect information that explains why some women choose to breastfeed and others do not. PRAMS data does, however, provide information on why women stopped breastfeeding. The top two reasons were that the mother thought she was not producing enough milk and that breast milk alone did not satisfy the baby.

In order to meet the Healthy People 2010 goal, concerted efforts will need to be aimed at increasing breastfeeding rates in Arkansas. Given the benefits of breastfeeding, further research needs to be conducted to help understand why some women choose to breastfeed and others do not. Increased education about breastfeeding needs to be aimed at pregnant women, healthcare workers, and public aid providers. Efforts also need to be aimed at reducing any cultural stigmas regarding breastfeeding.

## Recommendations

**Below are recommendations that can be used to improve breastfeeding rates:**

- *Further develop peer counseling support programs.* These programs have proven to be effective in encouraging women who are low-income and from various minority groups to breastfeed. Pregnant women and new mothers who participate receive support and encouragement from women with breastfeeding experience. Women are generally referred through WIC clinics, hospitals, healthcare professionals, and former participants.<sup>6</sup>
- *Provide information about legislation that promotes, protects, and supports the rights of breastfeeding women.* Healthcare providers and mothers need information about breastfeeding legislation that protects mothers' rights to breastfeed. Several states, including Arkansas, have laws with language that allow women to breastfeed in public or private locations and exempt breastfeeding women from indecent exposure laws ([www.ncsl.org/programs/health/breast50.htm](http://www.ncsl.org/programs/health/breast50.htm)). For the Arkansas 2009 legislative session, there is proposed legislation for breast pumping in the workplace.

## Recommendations continued

- *Use different media to promote breastfeeding.* Posters of mothers breastfeeding can be placed in healthcare and social service provider offices. Information on breastfeeding can also be found at [www.breastfeeding.com](http://www.breastfeeding.com) The African American Breastfeeding Alliance ([www.aabaonline.com](http://www.aabaonline.com)) is an organization established to educate African American women and their families about the benefits of breastfeeding.
- *Educate employers to increase understanding of the benefits of breastfeeding.* Breastfeeding once a woman returns to work is beneficial in reducing stress in the mother and absences due to illness in both the mother and baby.<sup>7</sup>



## Appendix

**Table 1. Characteristics of Mothers in PRAMS Sample: Arkansas, 2005-2006**

Characteristic	Total (n=4,332)		White, non-Hispanic (n=3,008)		Black, non-Hispanic (n=858)		Hispanic (n=370)	
	Percent	95% CI*	Percent	95% CI*	Percent	95% CI*	Percent	95% CI*
<b>Age</b>								
<20	13.5	12.2-14.9	12.3	10.7-13.8	17.3	13.8-20.8	15.1	10.4-19.8
20-29	63.3	61.3-65.3	62.5	60.2-65.0	69.5	65.0-73.9	61.0	54.5-67.6
30+	23.2	21.4-24.9	25.2	23.0-27.4	13.2	9.8-16.6	23.9	18.2-29.6
<b>Education</b>								
<12	22.2	20.4-23.9	15.9	14.1-17.7	21.0	17.0-24.9	63.0	56.5-69.5
12	39.0	37.0-41.0	39.3	36.9-41.7	47.1	42.2-52.1	25.4	19.6-31.3
>12	38.9	36.8-40.9	44.8	42.3-47.2	31.9	27.2-36.7	11.6	7.3-16.0
<b>Marital Status</b>								
Married	60.0	58.9-62.9	70.8	68.6-73.1	24.5	20.1-28.9	56.7	50.1-63.3
Unmarried	39.1	37.1-41.1	29.2	26.9-31.4	75.5	71.1-79.9	43.3	36.7-49.9
<b>Medicaid</b>								
Yes	60.1	58.0-62.1	51.5	49.1-54.0	82.2	78.2-86.2	79.1	73.5-84.6
No	39.9	37.9-42.0	48.5	46.0-51.0	17.8	13.8-21.8	20.9	15.4-26.5
<b>Breastfeeding Counseling</b>								
Yes	80.2	78.5-81.9	78.6	76.6-80.7	85.0	81.4-88.6	83.0	77.7-88.2
No	19.8	18.1-21.5	21.4	12.3-23.4	15.0	11.4-18.6	17.0	11.8-22.3
<b>Pregnancy Intention</b>								
Intended	50.6	48.5-52.7	54.8	52.3-57.2	28.4	23.8-32.9	57.5	50.9-64.1
Unintended	49.4	47.3-51.5	45.2	42.7-47.7	71.6	67.1-76.1	42.5	35.9-49.1
<b>Previous Live Birth</b>								
Yes	61.0	59.0-63.0	60.0	57.6-62.4	62.6	57.8-67.4	68.0	61.7-74.4
No	39.0	37.0-41.0	40.0	37.6-42.4	37.4	32.6-42.2	32.0	25.6-38.3
<b>Prenatal Care in 1st Trimester</b>								
Yes	72.2	70.3-74.1	75.8	73.7-77.9	66.2	61.4-70.9	62.3	55.7-69.0
No	27.8	25.9-29.7	24.2	22.1-26.3	33.8	29.1-38.6	37.7	31.0-44.3
<b>Public Health Region</b>								
Northwest	35.4	33.4-37.4	---	---	---	---	---	---
Southwest	8.5	7.7-9.3	---	---	---	---	---	---
Central	27.8	25.9-29.6	---	---	---	---	---	---
Northeast	18.7	17.2-20.2	---	---	---	---	---	---
Southeast	9.6	8.5-10.7	---	---	---	---	---	---

\*95% confidence interval.

## Appendix

**Table 2. Percentage of Mothers Who Ever Breastfeed or Pumped Milk to Feed Their Infant After Delivery, by Race/Ethnicity and Selected Characteristics: Arkansas, 2005-2006**

Characteristic	Total (n=4,332)		White, non-Hispanic (n=3,008)		Black, non-Hispanic (n=858)		Hispanic (n=370)	
	Percent	95% CI*	Percent	95% CI*	Percent	95% CI*	Percent	95% CI*
<b>% Breastfeeding</b>								
<b>All Women</b>	<b>64.6</b>	<b>62.6-66.6</b>	<b>66.9</b>	<b>64.6-69.2</b>	<b>38.6</b>	<b>33.7-43.5</b>	<b>89.5</b>	<b>85.4-93.5</b>
<b>Age</b>								
<20	55.6	50.1-61.1	57.9	51.1-64.7	69.3	28.4-50.1	75.9	60.2-91.5
20-29	63.3	60.8-65.8	65.7	62.7-68.6	37.6	31.6-43.6	92.6	88.5-96.8
30+	73.4	69.5-77.3	74.1	69.7-78.5	42.8	29.1-56.4	89.7	81.4-98.0
<b>Education</b>								
<12	57.7	53.2-62.2	48.8	42.6-55.1	24.2	15.1-33.4	89.5	84.2-94.8
12	58.1	54.9-61.3	61.4	57.7-65.1	36.3	29.5-43.2	87.5	79.1-96.0
>12	75.1	72.2-78.1	78.0	74.9-81.1	51.4	42.1-60.7	92.7	83.0-100
<b>Marital Status</b>								
Married	72.9	70.6-75.3	72.0	69.4-74.6	55.4	44.9-66.0	90.4	85.4-95.4
Unmarried	51.5	48.2-54.9	54.4	49.8-58.9	33.1	27.8-38.3	88.2	81.5-94.9
<b>Medicaid</b>								
Yes	57.4	54.7-60.1	57.5	54.2-60.9	36.0	30.7-41.3	90.5	86.1-95.0
No	75.8	73.0-78.6	77.1	74.1-80.1	50.1	37.5-62.6	86.8	77.0-96.6
<b>Breastfeeding Counseling</b>								
Yes	65.6	63.4-67.8	79.8	77.3-82.3	85.5	79.6-91.3	83.1	77.5-88.7
No	62.8	58.2-67.5	76.6	72.9-80.3	84.7	80.0-89.4	80.1	61.8-98.3
<b>Pregnancy Intention</b>								
Intended	71.0	68.4-73.7	70.4	67.4-73.5	47.9	38.3-57.5	90.8	85.9-95.8
Unintended	58.2	55.2-61.1	62.9	59.3-66.4	34.3	28.7-40.0	87.6	80.7-94.6
<b>Previous Birth</b>								
Yes	61.2	58.8-63.8	62.7	59.6-65.8	35.6	29.4-41.8	88.2	82.8-93.5
No	69.8	66.8-72.8	73.3	70.0-76.7	43.6	35.5-51.6	91.1	84.3-97.9
<b>Prenatal Care in 1st Trimester</b>								
Yes	67.2	64.9-69.5	69.2	66.6-71.8	41.9	35.7-48.2	91.3	86.5-96.1
No	58.7	54.7-62.7	59.9	54.9-64.9	33.6	25.4-41.9	87.8	80.7-95.0
<b>Public Health Region</b>								
Northwest	75.1	72.0-78.3	---	---	---	---	---	---
Southwest	57.4	52.2-62.6	---	---	---	---	---	---
Central	64.9	60.7-69.1	---	---	---	---	---	---
Northeast	57.1	52.7-61.6	---	---	---	---	---	---
Southeast	46.1	40.4-51.9	---	---	---	---	---	---

\*95% confidence interval.

## References

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## What is PRAMS?

The Pregnancy Risk Assessment Monitoring System (PRAMS) is an on-going, population-based surveillance system sponsored by the Centers for Disease Control and Prevention (CDC). The PRAMS survey is designed to capture information on maternal behaviors and experiences that occur before, during, and after pregnancy among women who had a live birth. PRAMS provides information that is not available from the birth certificate or other sources.

The goal of PRAMS is to provide state-specific information that can be used to improve the health of mothers and infants by reducing adverse outcomes such as low birth weight, infant mortality and morbidity, and maternal morbidity. Data from the PRAMS survey can be used to identify women who are at high risk for health problems, to monitor changes in maternal health indicators, and to measure progress in improving the health of mothers and their infants.

In Arkansas, over 200 recent mothers are sampled from Arkansas birth certificates each month and stratified by birth weight and population density. Mothers are mailed as many as three questionnaires about such issues as prenatal care, birth control, breastfeeding, insurance coverage, well-child care, and pregnancy intention. Responses are weighted to adjust for sample design, non-coverage, and non-response.

## Acknowledgments

**John Senner, PhD, Branch Chief**  
Health Statistics  
Arkansas Department of Health

**Richard Nugent, MD, MPH, Branch Chief**  
Family Health  
Arkansas Department of Health

**Deneen Delaney-Miller, Coordinator**  
Arkansas PRAMS Program  
Arkansas Department of Health

**Yolanda Sanders**  
Arkansas PRAMS Program  
Arkansas Department of Health

**Sandra Jones**  
WIC State Breastfeeding Coordinator  
Arkansas Department of Health

