

PRAMS

and Breastfeeding

The Importance of Breastfeeding

Breastfeeding is generally recognized as the optimum form of nutrition for infants. Many professional health organizations have adopted policies in support of breastfeeding.¹⁻⁷ Additionally, the United States Department of Health and Human Services has developed Healthy People 2010 objectives to increase the proportion of mothers who breastfeed in the early postpartum period to 75%, to increase the proportion who continue to breastfeed at 6 months to 50%, and to increase the proportion who continue to breastfeed at 12 months to 25%.⁸ In 2006, the breastfeeding objectives were expanded to include new objectives aimed at increasing the proportion of mothers who exclusively breastfeed.⁹ In 2007, the targets for these objectives were set at 40% for exclusive breastfeeding through 3 months and 17% for exclusive breastfeeding through 6 months.^{9,10}

Breastfeeding is associated with numerous health benefits for infants and mothers.¹¹ Breast milk strengthens infants' immune systems, and thus results in fewer cases of

illness among newborns.¹²⁻¹⁵ Breastfeeding has also been associated with decreased risk of pre-menopausal breast cancer in women.¹¹ However, breastfeeding rates remain low among some groups of women, such as women who are young, black, below the federal poverty threshold, unmarried, or less than college-educated.^{16,17} Many women also stop breastfeeding soon after initiation for various reasons, such as smoking, medication use, physical and mental health issues, or the need to return to work.¹⁸

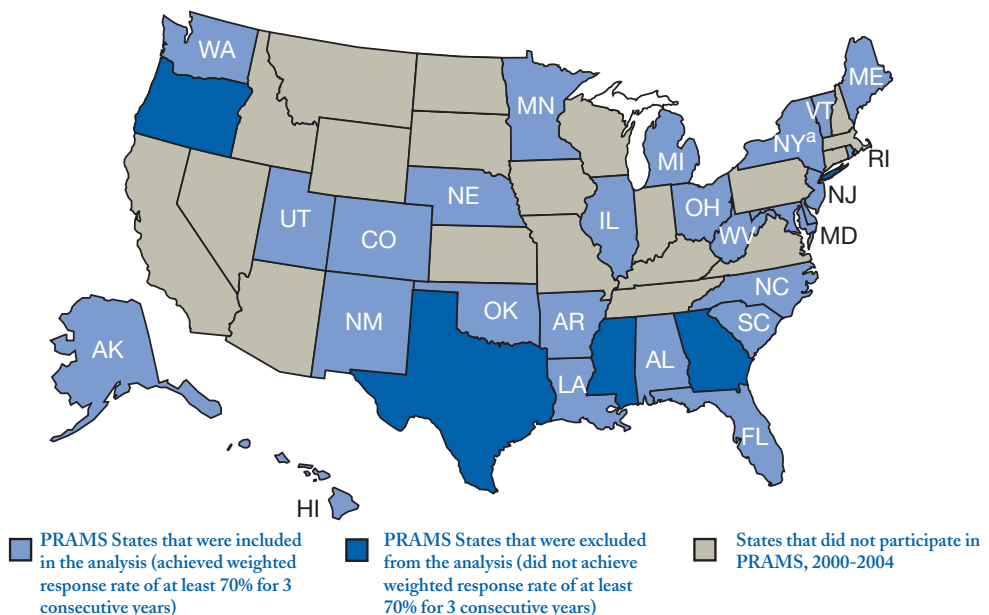
PRAMS* and Breastfeeding

PRAMS surveys women on breastfeeding initiation and current breastfeeding at the time of the survey.

Questions asked on the survey include:

- Did you ever breastfeed or pump breast milk to feed your new baby after delivery?
- Are you still breastfeeding or feeding pumped milk to your new baby?
- How many weeks or months did you breastfeed or pump milk to feed your baby?

PRAMS States with data on breastfeeding, 2000-2004



PRAMS Data on Breastfeeding

For this report, we used data from 2000 to 2004 for the 25 states that achieved a weighted response rate of at least 70% for 3 consecutive years (Figure 1). We generated prevalence estimates for breastfeeding initiation and breastfeeding at 4 weeks postpartum. Also, we generated overall prevalence estimates for breastfeeding initiation and breastfeeding at 4 weeks postpartum for demographic groups classified by race/ethnicity, age, and whether receiving Medicaid.

In 2004, the overall prevalence of breastfeeding initiation among the 23 participating states for which data were available was 75.2% (95% confidence interval [CI] 74.6%-76.1%); the prevalence ranged from 55.5% (Louisiana) to 91.1% (Hawaii and Utah). Breastfeeding initiation showed a significant increasing trend overall and in 10 of the 17 states for which data from 2000 to 2004 were available (Vermont showed this trend from 2001 to 2004) (Table 1).

In 2004, the overall prevalence of breastfeeding at 4 weeks postpartum among the 23 states for which data were available was 62.6% (95% CI 61.8%-63.3%); the prevalence ranged from 41.7% (Louisiana) to 81.3% (Utah). Breastfeeding at 4 weeks postpartum showed a significant increasing trend overall and in 7 of the 17 states for which data from 2000 to 2004 were available (Vermont also showed this trend from 2001 to 2004) (Table 2).

Table 1. Prevalence of breastfeeding initiation, 2000-2004

State	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004* (%)	P value for trend
Alabama	55.3	54.2	57.5	57.9	--	0.12
Alaska	88.9	90.6	90.5	90.3	91.0	0.18
Arkansas	60.2	61.6	61.8	65.3	63.5	0.04†
Colorado	85.5	84.3	85.5	85.3	87.2	0.19
Florida	77.2	75.9	77.5	73.3	76.1	0.28
Hawaii	89.3	89.8	89.3	89.3	91.1	0.18
Illinois	69.0	68.6	73.8	72.0	75.0	0.00†
Louisiana	46.1	50.4	50.3	51.2	55.5	0.00†
Maine	75.6	77.4	71.9	77.6	78.5	0.17
Maryland ^a	--	76.5	72.4	77.5	76.2	0.54
Michigan ^b	--	68.8	70.0	68.5	71.0	0.49
Minnesota ^c	--	--	79.1	81.2	78.6	0.69
Nebraska	71.9	75.2	76.4	76.7	78.1	0.00†
New Jersey ^d	--	--	74.0	75.9	74.8	0.81
New Mexico	80.0	80.2	82.1	82.5	84.4	0.00†
New York ^e	69.3	68.7	72.0	71.7	72.4	0.09
North Carolina	63.1	67.8	70.3	70.1	72.0	0.00†
Ohio	63.1	62.4	65.9	63.0	--	0.67
Oklahoma	68.1	70.7	68.0	68.9	74.5	0.04†
Rhode Island	--	--	67.0	72.2	70.9	0.06
South Carolina	52.6	57.4	58.6	63.1	62.0	0.00†
Utah	87.7	88.3	91.0	88.6	91.1	0.01†
Vermont	--	78.5	79.3	80.7	82.1	0.01†
Washington	88.4	90.4	90.3	90.1	90.5	0.27
West Virginia ^f	53.5	55.8	55.5	56.7	62.4	0.01†
Overall	69.5	70.6	72.7	72.4	75.2	^

--Data unavailable or excluded from analysis because response rate was <70%.

*Due to change in skip pattern between the 2003 and 2004 surveys, an additional 0.1% respondents were eligible to answer the breastfeeding questions in 2004.

†P value is statistically significant at the 0.05 level.

^Since the total number of states included in overall prevalence estimates varied from year to year, a trend analysis was not performed.

^a 2001 data represent February through December births.

^b 2001 data represent July through December births.

^c 2002 data represent May through December births.

^d 2002 data represent July through December births.

^e Data from New York City not included.

^f 2004 data represent July through December births.

*The Pregnancy Risk Assessment Monitoring System (PRAMS) is part of a CDC initiative to reduce infant mortality and low birth weight. PRAMS is an ongoing, state-level, population-based surveillance system that identifies and monitors selected maternal experiences and behaviors before, during, and after pregnancy.

Each state uses the same standardized mail/telephone method to survey mothers who recently gave birth. Responses are then weighted to be representative of all women who gave birth in each state during that year.

The prevalence of breastfeeding initiation in 2004 was at least 75% in 15 of the 23 states for which data were available (Table 1). However, only 5 of the 23 states had a prevalence of at least 75% at 4 weeks postpartum (Table 2). In 2004, the prevalence of breastfeeding initiation was lower than 75% among women who were black, were less than 20 years old, were between 20-24 years old, or received Medicaid (Table 3). Only women who were classified as other race/ethnicity had a prevalence of at least 75% for breastfeeding at 4 weeks postpartum (Table 3).

Recommendations

PRAMS data on breastfeeding can be used to identify states and groups of women with a low prevalence of breastfeeding. Breastfeeding programs and interventions should target these groups in order to improve breastfeeding practices overall.



Table 2. Prevalence of breastfeeding at 4 weeks postpartum, 2000-2004

State	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004* (%)	P value for trend
Alabama	39.9	38.1	41.5	42.2	--	0.16
Alaska	79.0	79.6	80.3	77.1	78.2	0.34
Arkansas	44.3	44.5	47.2	47.0	46.2	0.24
Colorado	75.0	72.8	75.1	73.9	77.0	0.22
Florida	62.0	59.8	63.5	59.8	63.2	0.63
Hawaii	77.6	76.9	77.5	77.4	78.9	0.30
Illinois	56.1	56.7	60.2	58.4	62.4	0.00†
Louisiana	36.0	39.6	37.8	37.0	41.7	0.03†
Maine	62.6	65.1	61.0	65.1	65.4	0.26
Maryland ^a	--	63.6	62.5	65.4	67.1	0.11
Michigan ^b	--	51.5	56.3	55.1	56.3	0.19
Minnesota ^c	--	--	65.6	70.7	69.0	0.24
Nebraska	59.4	61.7	59.7	61.9	64.9	0.01†
New Jersey ^d	--	--	61.9	63.5	62.6	0.86
New Mexico	66.3	66.1	68.4	67.2	69.8	0.04†
New York ^e	57.1	55.3	59.5	57.4	58.1	0.48
North Carolina	50.4	54.4	56.0	56.0	60.0	0.01†
Ohio	51.0	48.8	52.9	50.3	--	0.79
Oklahoma	54.3	53.4	52.7	53.6	55.0	0.79
Rhode Island	--	--	55.2	59.2	58.2	0.18
South Carolina	38.8	42.4	46.6	49.6	49.4	0.00†
Utah	78.9	79.1	80.4	80.1	81.3	0.13†
Vermont	--	68.0	67.8	69.8	72.7	0.01†
Washington	77.6	76.6	78.0	76.8	80.1	0.28
West Virginia ^f	38.6	41.0	43.4	42.0	48.0	0.00†
Overall	56.7	56.8	59.6	59.1	62.6	^

--Data unavailable or excluded from analysis because response rate was <70%.

*Due to change in skip pattern between the 2003 and 2004 surveys, an additional 0.1% respondents were eligible to answer the breastfeeding questions in 2004.

†P value is statistically significant at the 0.05 level.

^Since the total number of states included in overall prevalence estimates varied from year to year, a trend analysis was not performed.

^a 2001 data represent February through December births.

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^c 2002 data represent May through December births.

^d 2002 data represent July through December births.

^e Data from New York City not included.

^f 2000 data represent July through December births.

Table 3. Prevalence of breastfeeding initiation and breastfeeding at 4 weeks postpartum among 2004 PRAMS participants, by selected demographic characteristics, for all PRAMS states** combined

Maternal characteristics	Breastfeeding initiation	Breastfeeding at 4 weeks postpartum
Race/Ethnicity	% (CI)†	% (CI)
White	75.6 (74.6-76.5)	63.2 (62.2-64.3)
Black	58.1 (56.1-60.2)	44.1 (42.0-46.1)
Hispanic	85.6 (84.0-87.0)	72.2 (70.1-74.1)
Other	86.5 (84.5-88.3)	75.5 (73.1-77.8)
Age (years)		
<20	61.7 (59.1-64.1)	40.4 (37.9-42.9)
20-24	69.9 (68.0-71.2)	53.8 (52.0-55.5)
25-34	78.7 (77.8-79.7)	68.0 (67.0-69.1)
35+	82.2 (80.4-83.8)	73.4 (71.4-75.3)
Medicaid recipient		
Yes	68.2 (67.0-69.4)	53.0 (51.7-54.2)
No	81.2 (80.3-82.1)	70.7 (69.6-71.7)

**See Table 1 for a list of the 23 participating states in 2004.
†CI = 95% confidence interval.

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