



Breastfeeding Among New Mothers in Florida, 1999

April 30, 2002

PRAMS Report # 10

Findings at a Glance

- 70.5% of new mothers in Florida initiated breastfeeding during 1999. 26.5% of mothers who initiated, breastfed for at least three months.
- Breastfeeding initiation among non-Hispanic Blacks, at 55.5%, was substantially lower than among both non-Hispanic Whites, at 73.7%, and Hispanics, at 76.7%.
- Breastfeeding initiation among married mothers, at 77.1%, was significantly higher than among unmarried mothers, at 58.4%.
- 66.8% of breastfeeding new mothers initiated while in the hospital. Among those initiating in the hospital, 36.8% were still breastfeeding at three months postpartum. However, among new mothers who did not initiate during their hospital stay, only 3.9% were still breastfeeding at three months postpartum. .
- Of new mothers who had been encouraged to breastfeed on demand by hospital staff, 90.1% reported breastfeeding initiation. In contrast, 39.3% of mothers who had not been encouraged to breastfeed on demand by hospital staff, initiated breastfeeding.

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PRAMS Overview

PRAMS (the Pregnancy Risk Assessment Monitoring System) is a joint surveillance project between the Florida Department of Health and the U.S. Centers for Disease Control and Prevention, designed to monitor the physical, economic, and social health of Florida's mothers and newborns. PRAMS is a mail survey with telephone follow-up of a random sample of recent mothers of live-born infants, completed when the infant is approximately three months old. In 1999, 2028 surveys were completed, for a response rate of 75.2%. The results presented are weighted to reflect the total population of Florida mothers and infants.

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Additional Information

For more information about Maternal and Child Health, please contact your local County Health Department, Healthy Start Coalition, or call The Maternal and Child Health Unit at the Florida Department of Health, (850) 245-4465, or write to us at Maternal and Child Health Unit, Florida Department of Health, 4025 Bald Cypress Way, Bin A-13, Tallahassee, FL 32399-1723.

For more information about the report, *Breastfeeding Among New Mothers in Florida, 1999*, call the Bureau of Epidemiology at the Florida Department of Health, (850) 245-4401; or write to us at Bureau of Epidemiology, Florida Department of Health, 4052 Bald Cypress Way, Bin A-12, Tallahassee, FL 32399-1720; or contact us via the internet at http://www.doh.state.fl.us/disease_ctrl/epi/topics/contact_epi.htm.

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Introduction

Research indicates that human breast milk provides a wide range of benefits to infants, mothers, families, and society. Infants benefit from being breastfed in many ways. Fluid secreted from the breasts at the time of parturition is rich in antibodies and minerals. These antibodies and minerals, considered by many to be the baby's first immunization, have been shown to produce enhanced immune responses to many infant infections and early childhood illnesses, such as: diarrhea, haemophilus influenza, meningitis in preterm infants, middle ear infection, pneumococcal disease, respiratory infections, respiratory syncytial virus, sepsis in preterm infants, and urinary tract infections.¹

Many breastfeeding benefits for mothers have been documented. Hormones that are released during milk letdown aid in maternal postpartum recovery. Breastfeeding has been associated with decreases in developing certain cancers, for example, pre-menopausal breast cancer, endometrial cancer, esophageal cancer, and ovarian cancer. Breastfeeding also supports birth spacing by delaying postpartum ovulation. It is related to a reduction in the incidence of pregnancy-induced long-term obesity. Also, breastfeeding supports nurturing and bonding between a mother and her baby.¹

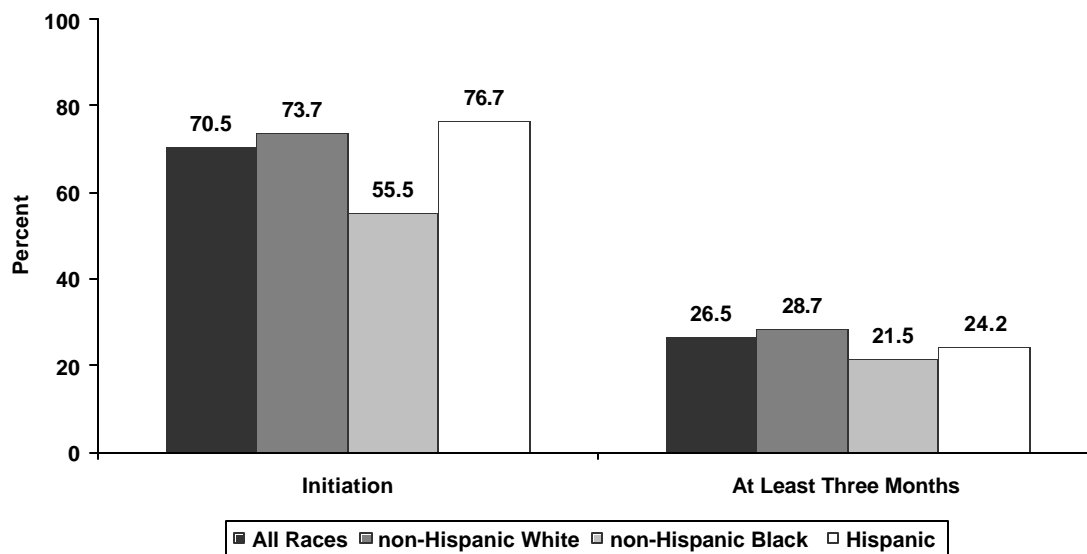
Breastfeeding Initiation Among New Mothers

Maternal Race-Ethnicity

When data were analyzed by maternal race-ethnicity, the percentages of breastfeeding initiation were 73.7% among non-Hispanic White mothers, 55.5% among non-Hispanic Black mothers, and 76.7% among Hispanic mothers (**Figure 1**).

The breastfeeding initiation rate among non-Hispanic Black mothers (55.5%) was significantly lower than initiation rates reported by both non-Hispanic White mothers (73.7%) and Hispanic mothers (76.7%) ($p < 0.0001$). This substantial racial gap in breastfeeding initiation rates is evidence of a need for greater focus on increasing awareness of the benefits of breastfeeding among the non-Hispanic Black population in Florida.

Figure 1: Percent of breastfeeding initiation and duration among Florida mothers, by maternal race-ethnicity, Florida PRAMS 1999

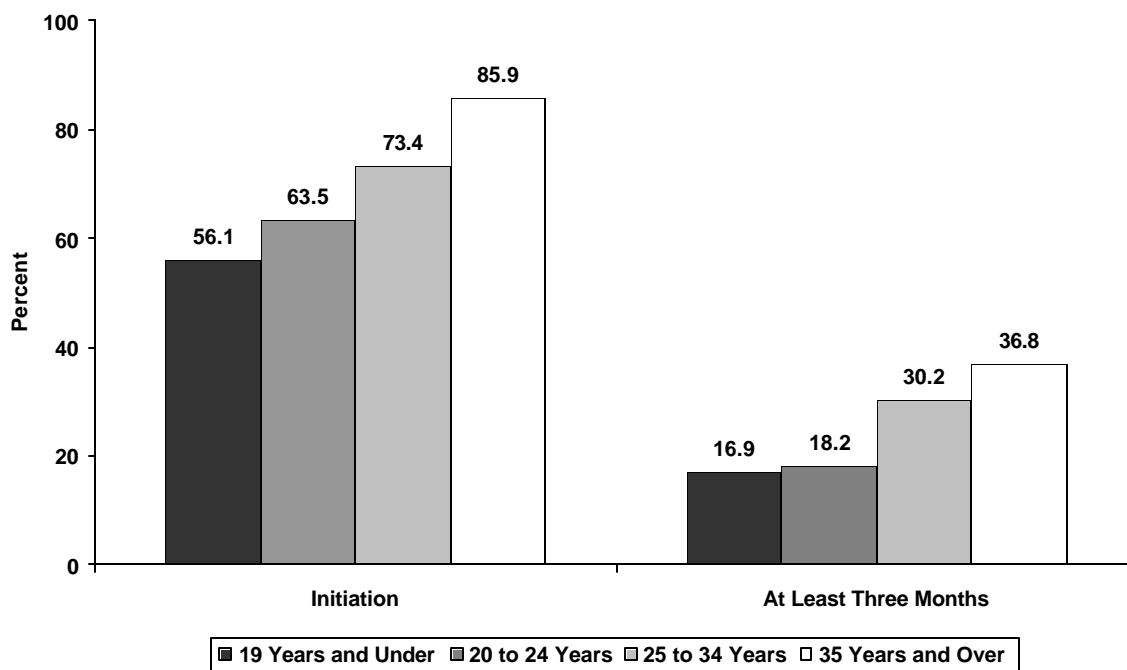


Maternal Age

During 1999, breastfeeding initiation percentage rates among new mothers in Florida increased with increasing maternal age. Analysis by maternal age reveals that breastfeeding initiation rates were 56.1% among new mothers ages 19 and under, 63.5% among those between the ages of 20 and 24 years, 73.4% among new mothers who were between the ages of 25 and 34 years, and 85.9% among those ages 35 and over (Figure 2).

The initiation rate among new mothers ages 35 and over (85.9%) was significantly higher than among new mothers belonging to all three younger age groups ($p < 0.01$). Initiation among mothers between the ages of 25 and 34 years was significantly higher than among both groups under 25 years of age ($p < 0.05$).

Figure 2: Percent of breastfeeding initiation and duration among Florida mothers, by maternal age, Florida PRAMS 1999



Maternal Education

Breastfeeding initiation among new mothers with exactly 12 years education (67.5%) was significantly higher than among mothers with less than 12 years education (56.0%) ($p < 0.05$). The initiation rates among both groups of new mothers with at least 13 years education were significantly higher than initiation among those with less than 12 years education (56.0%) ($p < 0.0001$). Breastfeeding initiation among mothers with at least 16 years education (81.1%) was significantly higher than among those with exactly 12 years education (67.5%) ($p < 0.01$).

Household Income

The Florida PRAMS survey collects information on household income by asking the following question:

74. What was your family's monthly income from all sources during the 12 months before your new baby was born? Include your income, your husband's or partner's income, and any other income you used. All information you give us will be kept private.

- Under \$650
- \$651 to \$1,300
- \$1,301 to \$2,100
- \$2,101 to \$3,300
- \$3,300 to \$4,200
- \$4,200 or more

The reported monthly household income was grouped into four annual household income categories for this report: \$15,600 and under, \$15,601 to \$25,200, \$25,201 to \$39,600, and \$39,601 and over. When analyzed within the four annual income categories, the percentage rates of breastfeeding initiation were 67.1% among new mothers with annual household incomes of \$15,600 and under, 63.9% among those with annual household incomes between \$15,601 and \$25,200, 70.3% among new mothers whose annual household income level was between \$25,201 and \$39,600, and 79.9% among those with annual household incomes of \$39,601 and over.

Two substantial differences in breastfeeding initiation existed among household income groups. The first difference was between new mothers with annual household incomes of \$15,600 and under (67.1%) and those with annual household incomes of \$39,601 and over (79.9%) ($p < 0.01$). The second difference existed between new mothers with annual household incomes between \$15,601 and \$25,200 (63.9%) and those with annual household incomes of \$39,601 and over (79.9%) ($p < 0.01$).

Marital Status

There was a substantial breastfeeding initiation gap between new mothers who were married and those who were not married ($p < 0.0001$). Initiation was 77.1% among married mothers, and 58.4% among unmarried mothers.

Hospital Staff's Encouragement to Breastfeed on Demand

Hospital staff's encouragement of new mothers to breastfeed their new babies on demand is included in the Florida PRAMS surveys. The following question captures this information:

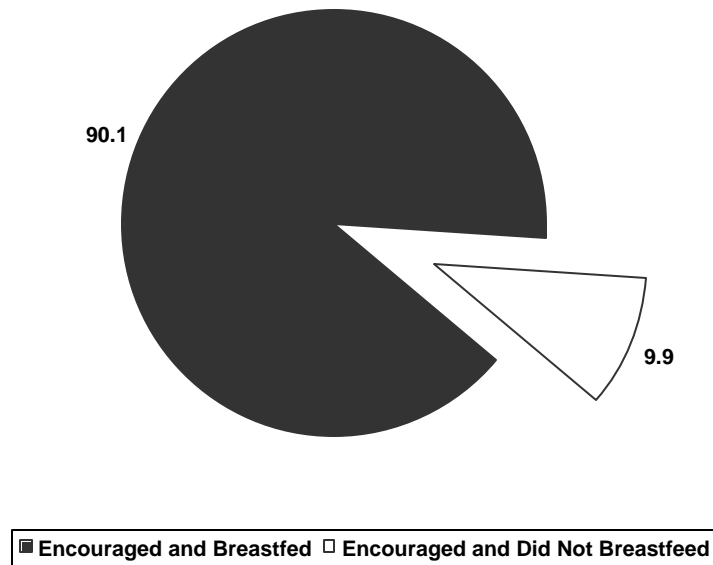
64. This question asks about things that may have happened at the hospital where your new baby was born. For each thing, circle Y (Yes) if it happened or N (No) if it did not happen.

f. Hospital staff told me to breastfeed whenever my baby wanted.

This factor was found to be a predictor of a new mother breastfeeding her baby ($p < 0.0001$). Among new mothers who reported being encouraged to breastfeed on demand by hospital staff, 90.1% initiated breastfeeding (**Figure 3**). This represents 78.2% of all breastfeeding mothers in Florida during 1999. In contrast, of new mothers who reported not being encouraged to breastfeed on demand by hospital staff, only 39.3% initiated breastfeeding.

New mothers need support and encouragement to breastfeed, especially during their brief postpartum stay in the hospital. Many new mothers who respond to the Florida PRAMS survey have reported being physically exhausted due to sleep deprivation throughout their third trimester which can lead to frustration and a reduced sense of patience for learning a new behavior, such as breastfeeding a new baby. This is where the hospital staff's enthusiastic encouragement and patient support of breastfeeding is so vital to a new mother's successful breastfeeding initiation.^{2, 3}

Figure 3: Percent of breastfeeding initiation among Florida mothers who were encouraged by hospital staff to breastfeed on demand, Florida PRAMS 1999



Breastfeeding Initiation in the Hospital

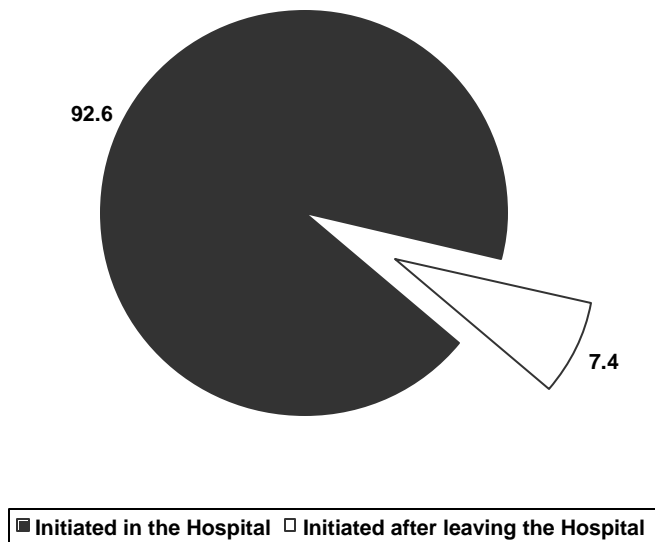
The Florida PRAMS survey addresses the subject of whether a new mother initiated breastfeeding during her stay in the hospital. The following question is used to gather this information:

64. This question asks about things that may have happened at the hospital where your new baby was born. For each thing, circle Y (Yes) if it happened or N (No) if it did not happen.

c. I breastfed my baby at the hospital.

Most mothers who initiate breastfeeding do so in the hospital. Among Florida mothers who initiated breastfeeding during 1999, 92.6% did so in the hospital (**Figure 4**). Overall, 66.8% of new mothers in Florida initiated breastfeeding in the hospital. Of the 33.2% of mothers who did not initiate in the hospital, only 20.2% did initiate breastfeeding after leaving the hospital.

Figure 4: Breastfeeding percent among Florida mothers who breastfed, by location of breastfeeding initiation, Florida PRAMS 1999



Breastfeeding at Three Months Postpartum

Among new mothers in Florida who initiated breastfeeding in 1999 (70.5%), less than half continued breastfeeding their babies for at least three months (**Figure 1**). Overall, 26.5% of new mothers breastfed for at least three months.

Maternal Race-Ethnicity

When data were analyzed by maternal race-ethnicity, the percentage rates of breastfeeding at three months postpartum were 28.7% among non-Hispanic White mothers, 21.5% among non-Hispanic Black mothers, and 24.2% among Hispanic mothers. The rate of breastfeeding for at least three months was significantly higher among non-Hispanic White mothers than among non-Hispanic Black mothers ($p < 0.05$).

Maternal Age

Breastfeeding rates for at least three months increased with increasing maternal age (**Figure 2**). When analyzed by maternal age groups, the rates of breastfeeding for at least three months were 16.9% among new mothers ages 19 years and under, 18.2% among those between the ages of 20 and 24 years, 30.2% among new mothers between the ages of 25 and 34 years, and 36.8% among those ages 35 years and over. The percentages of breastfeeding at three months postpartum among both groups of new mothers ages 25 years and over were substantially higher than among both groups of new mothers who were under 25 years of age ($p < 0.01$).

Maternal Education

The percentage rates of breastfeeding at three months postpartum increased with increasing maternal education. Breastfeeding rates at three months postpartum were 19.9% among new mothers with less than 12 years education, 22.3% among those with exactly 12 years education, 29.8% among new mothers having between 13 and 15 years education, and 33.9% among those having at least 16 years education.

Both groups of new mothers with at least 13 years of education reported breastfeeding for at least three months at significantly higher rates than new mothers with less than 12 years of education ($p < 0.05$). Breastfeeding at three months postpartum was substantially higher among new mothers with at least 16 years education (33.9%) than among those with exactly 12 years education (19.9%) ($p < 0.05$).

Household Income

Breastfeeding at three months postpartum among new mothers whose annual household income was between \$25,201 and \$39,600 (39.4%) was significantly higher than among both groups of mothers with annual household incomes \$25,200 and under ($p = 0.001$). The three month postpartum breastfeeding rate was substantially higher among mothers with annual household incomes of \$39,601 or more (29.7%) than among those with annual incomes between \$15,601 and \$25,200 (19.3%) ($p < 0.05$).

Marital Status

Rates of breastfeeding duration for at least three months differed significantly depending on marital status ($p < 0.0001$). 30.2% of married mothers continued to breastfeed their babies for at least three months, while 19.7% of new mothers who were not married breastfed for at least three months.

Hospital Staff's Encouragement to Breastfeed on Demand

Hospital staff's encouragement to breastfeed on demand demonstrated a significant effect on breastfeeding for at least three months ($p < 0.0001$). 35.8% of mothers who were encouraged by hospital staff to breastfeed their newborns on demand were still breastfeeding at three months postpartum. Only 11.2% of new mothers who had not received such encouragement from hospital staff continued to breastfeed for at least three months. Of new mothers who were still breastfeeding at three months postpartum, 83.3% reported being encouraged by hospital staff to breastfeed their new babies on demand.

Breastfeeding Initiation in the Hospital

There was a significant gap between percentage rates of breastfeeding for at least three months among new mothers who initiated breastfeeding in the hospital and those who did not ($p < 0.0001$). 36.8% of mothers who breastfed their babies in the hospital continued breastfeeding for at least three months, while only 3.9% of new mothers who did not breastfeed in the hospital were still breastfeeding at three months postpartum; this was the lowest three month postpartum breastfeeding rate reported on the 1999 PRAMS survey. Among new mothers who breastfed for at least three months, 95.1% initiated breastfeeding in the hospital.

Breastfeeding Promotion within the Public Health Community

Many public health offices and national medical associations support the use of human breast milk as the best possible nutrition for all infants, with rare exceptions. The Office of the U. S. Surgeon General published the HHS Blueprint for Action on Breastfeeding, which was developed by health and science experts from 14 federal agencies and 23 healthcare organizations. Among these healthcare organizations are the American Academy of Pediatrics and the American Academy of Family Physicians. The American College of Obstetricians and Gynecologists has published an educational bulletin entitled Breastfeeding: Maternal and Infant Aspects, wherein the benefits of breastfeeding are described.

The U. S. national health agenda for the next decade is called Healthy People 2010. The national target rates for breastfeeding initiation and at six months postpartum, are 75% and 50%, respectively. Such national support for increasing, not only, awareness of the benefits for breastfeeding, plus, breastfeeding prevalence among new mothers, is evidence of an upward trend in the promotion in the belief that breast milk is the preferred nutrition for infants.

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is a federally funded nutrition program that serves low and moderate income pregnant, breastfeeding, and postpartum women, infants, and children under the age of five. The WIC program provides a combination of supplemental nutritious foods, nutrition education, breastfeeding promotion and support, and referrals for health care. Breastfeeding promotion and support are important components of the WIC program.

Breastfeeding awareness, education, and promotion are being addressed at the state level, also. Florida's Healthy Start Services offers breastfeeding education and support services to all participants who are determined to need them. Breastfeeding education and support services are provided with consideration to the cultural, language, educational-literacy and accessibility needs of the participant. Healthy Start coalitions and providers are accountable for delivering services in compliance with these standards as outlined in administrative rules in the Florida Administrative Code.

Florida's County Health Departments also promote breastfeeding by coordinating services so that clients receive breastfeeding assessment, education and counseling during pregnancy and after birth. All women attending Maternal and Child Health clinics will be routinely and regularly informed about the benefits and management of breastfeeding, beginning at the first prenatal visit throughout the care period.

Detail Table: Breastfeeding Initiation and Duration at Three Months Postpartum among New Mothers, by Various Maternal Demographics, Florida PRAMS 1999

Population Groups	Initiation		At Least Three Months	
	Percent	95% Confidence Interval	Percent	95% Confidence Interval
Maternal Race-Ethnicity				
Statewide	70.5	(67.3, 73.7)	26.5	(23.1, 29.8)
non-Hispanic White	73.7	(68.8, 78.6)	28.7	(23.5, 33.9)
non-Hispanic Black	55.5	(51.2, 59.7)	21.5	(17.9, 25.1)
Hispanic	76.7	(69.8, 83.7)	24.2	(17.1, 31.2)
Maternal Age				
19 Years and Under	56.1	(51.8, 60.3)	16.9	(13.6, 20.1)
20 to 24 Years	63.5	(56.1, 70.8)	18.2	(12.3, 24.0)
25 to 34 Years	73.4	(68.5, 78.3)	30.2	(24.8, 35.5)
35 Years and Over	85.9	(79.2, 92.6)	36.8	(26.7, 46.8)
Maternal Education				
Less Than 12 Years	56.0	(49.2, 62.9)	19.9	(13.8, 26.0)
12 Years	67.5	(61.4, 73.7)	22.3	(16.5, 28.0)
13 to 15 Years	76.0	(69.7, 82.3)	29.8	(22.8, 36.8)
16 Years or More	81.1	(74.6, 87.5)	33.9	(26.1, 41.8)
Annual Household Income				
\$15,600 and Under	67.1	(61.7, 72.5)	22.2	(17.1, 27.2)
\$15,601 to \$25,200	63.9	(56.0, 71.8)	19.3	(12.6, 26.0)
\$25,201 to \$39,600	70.3	(61.2, 79.5)	39.4	(29.5, 49.3)
\$39,601 and Over	79.9	(74.0, 85.8)	29.7	(22.4, 36.9)
Marital Status				
Married	77.1	(72.9, 81.3)	30.2	(25.6, 34.7)
Not Married	58.4	(53.4, 63.4)	19.7	(15.3, 24.0)
Hospital Staff's Encouragement to Breastfeed on Demand				
Encouraged	90.1	(87.5, 92.8)	35.8	(30.9, 40.6)
Not Encouraged	39.3	(33.6, 44.9)	11.2	(7.6, 14.8)
Breastfeeding Initiation in the Hospital				
Yes	N/A	N/A	36.8	(32.1, 41.5)
No	N/A	N/A	3.9	(2.3, 5.4)

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3. Barbara L. Philipp; Anne Merewood; Lisa W. Miller; Neetu Chawla; Melissa M. Murphy-Smith; Jenifer S. Gomes; Sabrina Cimo; and John T. Cook; Baby-Friendly Hospital Initiative Improves Breastfeeding Initiation Rates in a US Hospital Setting, Pediatrics 2001 108: 677-681.
www.aap.org/advocacy/releases/septfeeding.htm

For more information on Breastfeeding, visit the following online resource:
www.borstvoeding.com/abon/bf-resources.html

Florida Department of Health
Bureau of Epidemiology
4052 Bald Cypress Way
Bin # A-12
Tallahassee, FL 32399-1720

Reported by
Curtis A. Miller
Florida Department of Health
Bureau of Epidemiology
(850) 245-4401

Jeb Bush
Governor

John O. Agwunobi, M.D., M.B.A.
Secretary, Department of Health

Steven T. Wiersma, MD, MPH
Bureau Chief, State Epidemiologist