

## **Breastfeeding Initiation and Continuation in California, 2000-2003**

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**Background:** Breastfeeding confers many benefits to infant and maternal health, yet many mothers do not follow breastfeeding recommendations. Healthy People 2010 benchmarks are that 75% of women breastfeed in the early postpartum period and 50% at 6 months postpartum. Half of all California births are to Hispanic women; two-thirds of Hispanic births are to foreign-born women. Thirty-one percent of births in 2002 were to White, non-Hispanic women, 12% were to Asian/Pacific Islanders, and 6% of births were to African-American women. Because of the demographic composition of women giving birth in California, racial and ethnic disparities in breastfeeding rates have a large impact on breastfeeding rates for the state as a whole and on maternal and infant health statewide.

This study examines disparities and determinants of breastfeeding for women in California, by race and ethnicity. One in eight births in the United States each year occurs in California, so breastfeeding patterns of women in California are an important component of breastfeeding nationally. They are also an important window on breastfeeding behavior of non-White women, given that few states have enough data on non-White women for detailed analysis, particularly for analyses by race/ethnicity and place of birth.

**Methods:** California's Maternal and Infant Health Assessment survey is a representative sample of postpartum women conducted annually by the California Department of Health Services since 1999. The sample is drawn from the birth certificates of women delivering live births from February through May of each year. The sample is stratified by region, education and race (African-American women are oversampled), and the analysis sample is weighted to reflect the

population of women delivering in a calendar year. Surveys are mailed 10-14 weeks postpartum, and response rates have ranged from 70.1% to 73.7%. Approximately three-quarters of completed surveys are returned between two and five months postpartum.

The questionnaire is modeled on the Center for Disease Control and Prevention's Pregnancy Risk Assessment Monitoring System (PRAMS) survey, and survey topics include modifiable risk factors for low birthweight, maternal physical morbidity, insurance and barriers to timely coverage, prenatal care barriers, timing, and content, pregnancy intention/ambivalence, breastfeeding, and sociodemographic factors. In addition to asking whether mothers ever breastfed, the survey asks, "When your baby was two months old, how were you feeding him/her?" Response options range from breast milk only to formula only. An additional question asks for the baby's age breastfeeding stopped if the woman is not still breastfeeding at the time of the survey.

Between 2000-2003, 14,053 women completed surveys, including 2,042 U.S.-born and 3,871 foreign-born Hispanic mothers, 4,706 White, non-Hispanic mothers, and 1,324 Asian/Pacific Islander mothers. Women are compared on whether they ever breastfed and breastfeeding status up to 2 months postpartum, including exclusive breastfeeding, by race/ethnicity and other sociodemographic factors; trends for 2000-2003 are to be described. Event history or lifetable analyses will describe the duration of breastfeeding up to approximately 3 months postpartum. Multivariate logistic regression will adjust for sociodemographic and behavioral factors (such as mother's age, parity, marital status, education, income (as a percent of Federal Poverty Level), and language spoken at home to assess differences in the odds of breastfeeding two months postpartum.

**Results:** Since delivering, 90% of non-Hispanic White, Asian/Pacific Islander, and foreign-born Hispanic women had ever breastfed, compared to 81% of U.S.-born Hispanic women and 77% of African-American women. Rates of breastfeeding declined soon after birth for all racial/ethnic groups. By 2 months postpartum, just over 50% of U.S.-born Hispanic and African-American mothers were still breastfeeding at all, compared to 67% of Asian/Pacific Islander mothers and 72-74% of non-Hispanic White and foreign-born Hispanic mothers. Thus, racial/ethnic disparities in breastfeeding increase when continuation of breastfeeding, not just initiation, is considered.

While over half of non-Hispanic White women who were still breastfeeding at 2 months postpartum were exclusively breastfeeding, women in other racial/ethnic groups were not. Just over one-quarter of African-American and U.S.-born Latinas were exclusively breastfeeding when their infant was 2 months old, compared to 35% of Asian/Pacific Islander, 36% of foreign-born Latinas, and 53% of non-Hispanic White mothers.

Although this is a short time period, there is some evidence that rates of any breastfeeding at 2 months postpartum have increased somewhat across most racial/ethnic groups, while rates of ever breastfeeding and breastfeeding exclusively at 2 months have remained steady.

Additional analyses will examine whether disparities in breastfeeding rates are minimized once other factors are held constant. In addition, selected information on sources of help received for breastfeeding and other foods/drinks given by the time the infant was two months old will be presented.

**Conclusions:** U.S.-born Hispanic mothers in California were less likely to ever breastfeed than foreign-born Hispanic mothers and were more likely to discontinue breastfeeding by two

months. These results are consistent with other research on the “acculturation paradox” of Mexican women which examines the protective factors associated with the improved birth outcomes of immigrant women compared to subsequent generations of Mexican-origin women. Differences between racial/ethnic groups in breastfeeding are substantial. For ever breastfeeding and any breastfeeding at 2 months postpartum, non-Hispanic White women are similar to Asian/Pacific Islanders and foreign-born Latinas, while U.S.-born Latinas and African-American women have similar breastfeeding rates. However, when examining exclusive breastfeeding 2 months postpartum, non-Hispanic White women stand out from all other groups. Women in all racial/ethnic groups met the Healthy People 2010 objective for the immediate postpartum period. However, by the time infants were 2 months old, U.S.-born Hispanic and African-American mothers just met the benchmark for 6 months postpartum.