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Trends in Breast Feeding¹

INTRODUCTION

Findings presented in this report from Cycle II of the National Survey of Family Growth (NSFG) confirm a significant reversal of the trends in breast feeding among American mothers described in detail in an earlier report based on Cycle I of the survey.² These data show that the downward trend that had been in progress since the 1950's was reversed in the early 1970's.

In 1973 the proportion of babies breast fed was 25 percent; in 1975 it was 35 percent. Breast feeding was more common among white women than black women: 33 percent of the babies born to white women in 1973-75 were breast fed, compared with only 15 percent of the babies born to black women. Also, breast feeding was more common among women with more years of education: 48 percent of babies born in 1973-75 to mothers with more than 12 years of education were breast fed, compared with 24 percent of the babies born to women with 12 years of education or less.

These findings are based on a special analysis of data from Cycle II, conducted in 1976 by the National Center for Health Statistics, and are reported in the Advance Data series because they substantiate the tentative conclusion of the earlier report that breast feeding was increasing. The data were collected by personal interviews

with women in a representative sample of households in the conterminous United States. Women were eligible for the interview if they were 15-44 years of age and either married, divorced, widowed, or never married but with offspring living in the household. The statistics in this report are for babies born to women in the sampled population during 1973-75.

The statistics in this report may differ from those which would be obtained from a complete enumeration of the population because of sampling variability. The sample design, sampling variability, and definitions of terms are discussed in the Technical Notes.

To obtain information about breast feeding, mothers were asked about each baby who had lived with them for 2 months or more: "Did you breast feed him (or her) at all?" If she had breast fed at all, she was also asked: "How many weeks old was he (or she) when you quit breast feeding him (or her) altogether?" Table 1 shows the estimated number of babies born in 1973-75 and the percent breast fed at all (wholly or partially), by year of the birth, birth order, baby's sex, mother's race, and mother's education.

FINDINGS

About 25 percent of the babies born in 1973 were breast fed, but that figure increased to nearly 35 percent in 1975 for an average of 30 percent over the period 1973-75. Because these estimates are based on small samples, differences of a few percentage points may reflect chance sampling variation, not true differences in the population. However, the probability is less than 0.10 that the difference between the 1973 and 1975 estimates resulted from chance. It is

¹This report was prepared by Gerry E. Hendershot, Ph.D., Division of Vital Statistics.

²National Center for Health Statistics: Trends in breast feeding among American mothers, by C. Hirschman and G. Hendershot. *Vital and Health Statistics. Series 23-No. 3.* DHEW Pub. No. (PHS) 79-1979. Public Health Service. Washington. U.S. Government Printing Office, Nov. 1979.

Table 1. Number of babies who lived with their mother for 2 months or more and percent breast fed, by year of baby's birth, baby's birth order, baby's sex, mother's race, and mother's education: United States, 1973-75

Characteristic	Year of baby's birth							
	1973-75	1975	1974	1973	1973-75	1975	1974	1973
	Number in thousands				Percent breast fed			
Total ¹	9,379	2,939	3,269	3,171	29.8	34.5	30.6	24.7
<u>Birth order</u>								
First.....	3,903	1,176	1,318	1,410	33.2	37.0	37.2	26.3
Second.....	3,068	960	1,175	934	29.4	35.9	27.9	*24.5
<u>Sex of baby</u>								
Male.....	4,689	1,424	1,704	1,561	28.1	32.8	29.4	22.5
Female.....	4,690	1,515	1,564	1,610	31.5	36.1	31.9	26.8
<u>Mother's race</u>								
White.....	7,743	2,401	2,761	2,581	32.7	37.8	33.6	27.1
Black.....	1,425	491	458	476	*14.9	*16.8	*15.6	*12.3
<u>Mother's education</u>								
12 years or less.....	6,978	2,152	2,410	2,416	23.5	28.2	23.6	19.2
More than 12 years.....	2,383	775	852	755	48.1	51.9	49.9	42.2

¹Includes third and higher order births, races other than white or black, and unknown education.

likely, therefore, that the difference reflects a true increase in breast feeding. That conclusion is supported by the consistency of the increase in subgroups of the population: in every category of birth order, sex, race, and education shown in table 1 the percent breast fed is greater for 1975 than for 1973, although due to sampling variability none of these individual differences is statistically significant in itself.

The increase in breast feeding between 1973 and 1975 confirms the tentative observation in an earlier report,² based on Cycle I of the National Survey of Family Growth, that the downward trend in breast feeding which had been in progress since the 1950's was reversed in the early 1970's. Although breast feeding still was not as common in 1975 as it was in the 1940's (when more than one-half of babies were breast fed), it was more common in 1975 than in the late 1960's (when less than one-fourth of babies were breast fed).

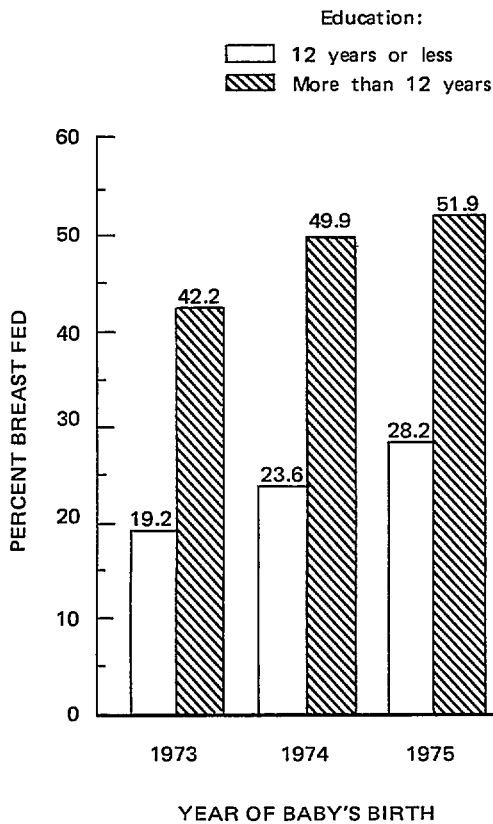
Breast feeding became more common in the early 1970's, but it continued to be of relatively short duration for most babies. In the Cycle I

report cited before it was estimated that about 7 percent of babies born in 1971-73 were breast fed for 3 months or more. The Cycle II estimate of that figure in 1973-75 is about 4 percent. While the difference between these estimates is not large enough to conclude with statistical confidence that there was a decrease in longer term breast feeding, it may be concluded that there was no significant increase. Thus, although the proportion of babies receiving some breast feeding increased in the early 1970's, the proportion breast fed for long periods did not increase. For a large majority of breast-fed babies, breast feeding ended before age 3 months, much younger than the 5-6 months recommended by pediatric authorities.³

The large differences between the breast-feeding practices of black and white women which were found in the Cycle I report continued in 1973-75: in each of these years, babies born

³Fomon, S. J., et al.: Recommendations for feeding normal infants. *Pediatrics* 63(1):52-59, Jan. 1979.

PERCENT OF BABIES WHO WERE BREAST FED, BY YEAR OF BABY'S BIRTH AND MOTHER'S EDUCATION: UNITED STATES, 1973-75



to white mothers in the sample were more than twice as likely to be breast fed as babies born to black mothers. In fact, the racial difference in breast feeding appeared to be larger in 1975 than in 1973, although the increase was not statistically significant. The difference in breast feeding by educational attainment noted in the earlier report also continued in 1973-75: babies born to women in the sample with more than 12 years of education were more than twice as likely to be breast fed as other babies. By 1974 about one-half of babies born to women with some college education were breast fed (see the figure). Thus breast feeding continued to be more prevalent in relatively advantaged segments of the population.

Differences in the percent breast fed by birth order and sex are not large (table 1), and in no case are they statistically significant. However, the slightly higher percent breast fed among first-born babies than second-born babies also was found in the Cycle I report. This consistency between survey findings is evidence that the difference by birth order for 1973-75 shown in table 1 is probably real.

TECHNICAL NOTES

SAMPLE DESIGN AND RELIABILITY
OF ESTIMATES

In Cycle II of the National Survey of Family Growth interviews were conducted with women living in households selected by a multistage area probability design. Sampling and interviewing were done by Westat, Inc., from January through September 1976. About 93 percent of sample households (33,000) were successfully screened for eligible women, and about 88 percent of identified eligible women (8,611) were interviewed, an overall response rate of about 82 percent. The statistics in this report are estimates for the national population and were computed by multiplying each sample case by the number of women she represented in the population. The multipliers, or "weights," ranged from 647 to 43,024 and averaged 3,822.

Because the estimates are based on a sample rather than the whole population, they are subject to sampling variability, chance differences between the sample estimate and the actual population value. Sampling variability is measured by a statistic called the standard error. Provisional approximate standard errors for numbers and percents of babies are shown in tables I and II. Because of different sampling rates for the samples of black women and white women, standard errors for statistics based on these two racial groups are somewhat different. The estimates in tables I and II should be multiplied by 1.05 for black women and by 0.97 for white women. Estimates for numbers and percents not shown in the tables may be approximated by interpolation. In this report statistics whose standard error was 25 percent

Table II. Provisional approximate standard errors expressed in percentage points for estimated percents of babies: National Survey of Family Growth, 1976

Base of percent	Estimated percent				
	10	20	30	40	50
700,000.....	5.8	7.6	8.7	9.4	9.6
1,000,000.....	4.8	6.4	7.3	7.8	8.0
3,000,000.....	2.7	3.7	4.3	4.5	4.6
7,000,000.....	1.9	2.4	2.7	2.9	3.1
10,000,000.....	1.5	2.1	2.3	2.5	2.5

or more of the estimate itself were considered unreliable, and they are marked with an asterisk. Unreliable estimates should be used only with great caution.

The differences between statistics in this report are also subject to sampling variability. All differences mentioned in the text were tested for statistical significance. If a difference is asserted without qualification in the text, it is significant at the 0.05 level—there is less than 1 chance in 20 that the difference resulted from a chance sampling fluctuation. Where a significance level of 0.10 was used—less than 1 chance in 10 that a difference occurred by chance—that is specified in the text. Differences described as "not statistically significant" could have occurred by chance in more than 10 percent of repeated samples. Absence of comment about a difference does not necessarily mean that it was tested and found to be not statistically significant.

Estimates of numbers of babies shown in this report may differ from numbers of births in the same period obtained from the vital registration system for several reasons: (1) These estimates are based on a sample, while the birth registration system is a mechanism for registering all births occurring within the United States; (2) the sample did not include Alaska and Hawaii, military bases, group quarters, or institutions; (3) babies born in the period who did not live with their mother for at least 2 months after birth are not included in this report. For numbers of births, Volume I of *Vital Statistics of the United States* for 1973, 1974, and 1975 should be consulted.

Table I. Provisional approximate standard errors for estimated numbers of babies: National Survey of Family Growth, 1976

Size of estimate	Standard error
500,000.....	113,000
1,000,000.....	159,000
2,500,000.....	251,000
5,000,000.....	351,000
10,000,000.....	485,000

DEFINITIONS OF TERMS

Breast feeding.—Babies who lived with their mothers for at least 2 months after birth and whose mothers reported they had been breast fed “at all” are classified as having been breast fed. Included in this definition are both “long-term” breast feeding (3 months or more) and “short-term” breast feeding (less than 3 months) and both supplemented and unsupplemented breast feeding.

Race.—Classification of the race of the respondent as white, black, or other is based on observation by the interviewer.

Education.—Women are classified according to the highest year of regular schooling they reported having completed.

Birth order.—Babies are classified according to their numerical order among the live births reported by their mother—first, second, and so on. Babies within multiple live births are assumed to have been born in the order reported by their mother.

SYMBOLS

Data not available-----	---
Category not applicable-----	...
Quantity zero-----	-
Quantity more than 0 but less than 0.05----	0.0
Figure does not meet standards of reliability or precision (more than 30 percent relative standard error)-----	*

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