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Contraceptive Utilization in the United States: 1973 and 1976¹

INTRODUCTION

The data presented in this report are the latest nationwide statistics on contraceptive utilization from the 1976 and 1973 National Surveys of Family Growth conducted by the National Center for Health Statistics. The data were collected by means of personal interviews with a multistage probability sample of women 15-44 years of age in the noninstitutionalized population of the conterminous United States. Women were eligible for inclusion in the sample if they were currently or previously married or were never married but had offspring presently living in the household.

The interview focused on the respondents' marital and pregnancy histories, their use of contraception and the planning status of each pregnancy, their intentions regarding number and spacing of future births, their use of maternal care and family planning services, and on a broad range of social and economic characteristics. Between June 1973 and February 1974, 3,856 black women and 5,941 women of others races were interviewed for Cycle I. Between January and September of 1976, 2,946 black women and 5,665 women of other races were interviewed for Cycle II. Further discussion of the survey design, definition of terms, and sampling variability are in the Technical Notes.

CONTRACEPTIVE STATUS FOR CURRENTLY MARRIED WOMEN

From the 1960's through the early 1970's, there was increased use of highly effective contraceptive methods by married couples in the

United States.^{2,3} Tables 1, 2, and 3 present preliminary data from 1976 and data from 1973 representing the contraceptive status of currently married women all ages 15-44 years, ages 15-29 years, and ages 30-44, respectively. The data show that reliance on nonsurgical methods of contraception has decreased while surgical sterilization has increased.

In 1976, 30.2 percent of couples with wives aged 15-44 years were considered sterile (table 1). This represents a more than 6 percentage point increase from 1973 and is due primarily to a dramatic increase in surgical sterilization among white couples. There was a corresponding net decrease from 1973 in the other categories, most notably a decline of almost 5 percentage points in the proportion using nonsurgical methods of contraception. However, about the same percent of women at risk of an unplanned pregnancy (those not sterile, pregnant, post partum, or seeking pregnancy) were using a method in 1976 as were in 1973, 86.3 percent and 85.9 percent, respectively.

Of the remaining (69.8 percent) currently married women, 48.6 percent were contraceptors using methods other than sterilization; 13.4 percent were pregnant, post partum, or seeking pregnancy; and 7.7 percent were classified as other nonusers of contraception, that is, neither sterile nor "pregnant, post partum, or seeking pregnancy."

²National Center for Health Statistics: Contraceptive utilization among currently married women 15-44 years of age: United States, 1973, by Kathleen Ford. *Monthly Vital Statistics Report*, Vol. 25-No. 7, Supp. DHEW Pub. No. (PHS) 75-1120. Public Health Service. Rockville, Md. Oct. 4, 1976.

³Westoff, C. F. and Jones, E. F.: Contraception and Sterilization in the United States, 1965-1975. *Fam. Plann. Perspect.* 9 (4): 153-157, 1977.

¹This report was prepared by Kathleen Ford, Ph.D., Division of Vital Statistics.

Table 1. Number of currently married women aged 15-44 and percent distribution by contraceptive status, according to race and Hispanic origin: United States, 1973 and 1976

Contraceptive status	Total ¹		White		Black		Hispanic origin ²	
	1976	1973	1976	1973	1976	1973	1976	1973
Number in thousands ³								
All women.....	27,185	26,646	24,518	24,249	2,144	2,081	1,673	1,676
Percent distribution								
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Sterile couples</u>								
All sterile couples.....	30.2	23.8	31.0	24.0	24.3	22.7	20.5	21.6
Nonsurgical.....	1.9	0.9	1.9	0.8	2.6	1.9	1.5	*0.7
Surgical.....	28.3	22.9	29.1	23.1	21.7	20.8	19.0	20.9
Noncontraceptive.....	9.0	6.5	9.0	6.6	8.8	6.2	7.8	5.2
Female.....	8.2	6.3	8.2	6.3	8.7	6.1	7.0	5.2
Male.....	0.8	0.2	0.8	0.3	0.0	0.0	*0.9	-
Contraceptive.....	19.3	16.4	20.1	16.5	12.9	14.6	11.2	15.7
Female.....	9.6	8.6	9.6	8.2	11.0	13.6	7.0	10.7
Male.....	9.7	7.8	10.5	8.4	1.9	1.0	4.2	5.0
<u>Fecund couples</u>								
Noncontraceptors:								
Pregnant, post partum, seeking pregnancy.....	13.4	14.2	12.8	14.2	16.6	14.0	20.8	18.9
Other nonusers.....	7.7	8.7	7.2	7.8	13.5	17.9	10.5	9.7
Contraceptors:								
All methods.....	48.6	53.2	49.0	54.0	45.4	45.3	48.1	49.8
Oral contraceptive pill.....	22.3	25.1	22.5	25.1	22.0	26.3	20.7	22.9
Intrauterine device.....	6.1	6.7	6.1	6.6	6.1	7.6	10.4	8.7
Diaphragm.....	2.9	2.4	3.0	2.5	1.8	1.2	2.4	*1.8
Condom.....	7.2	9.4	7.4	9.9	4.5	3.2	6.1	7.0
Foam.....	3.0	3.5	2.9	3.5	3.8	3.0	3.5	*1.8
Rhythm.....	3.4	2.8	3.5	2.9	1.4	0.7	3.1	2.1
Withdrawal.....	2.0	1.5	2.0	1.6	1.8	0.4	*1.1	2.2
Douche.....	0.7	0.6	0.5	0.5	2.7	1.8	*0.1	*0.6
Other.....	0.9	1.3	0.9	1.3	1.2	1.0	*0.5	2.7

¹Includes white, black, and other races.²Women of Hispanic origin are included in the figures for white and black women if they were identified as such by the interviewer.³In the 1973 figures, estimates of the number of women included cases for which contraceptive status was not ascertained but was imputed. Only those cases in which contraceptive status was ascertained are included in the 1976 figures. See Technical Notes.

According to preliminary data for 1976, changes since 1973 in the distribution of women among categories of contraceptive status were largely in the same direction in the age groups 15-29 years (table 2) and 30-44 years (table 3). Both groups experienced a net increase in the percent sterile and a net decrease in the percent using a method other than sterilization. The net

increase for women 15-29 years of age was approximately 2 percentage points. The net increase was approximately 10 percentage points for women 30-44 years of age, and the net decrease was approximately 6 percentage points. The proportions of women at risk of an unplanned pregnancy who were using a contraceptive method were practically unchanged

within age groups for the 3 years—for women 15-29 years of age, 91.9 percent in 1973 and 91.3 percent in 1976; for women 30-44 years of age, 80.3 percent in 1973 and 80.7 percent in 1976.

The women in the younger age group who were not using a contraceptive method were more likely to be pregnant, post partum, or seeking pregnancy; the older women were more likely to be sterile. The total avoidance of contraception (other nonusers) was greater among older women, resulting in a higher percent of older women unprotected against an unplanned pregnancy. However, it is likely that other factors such as lower fecundity and less frequent intercourse reduce the risk of pregnancy.

The percent of wives 30-44 years who were pregnant, post partum, or seeking pregnancy increased about 4 percentage points from 1973 among black wives but did not change among white wives. Most of this increase was due to black wives reporting that they were seeking pregnancy.

In 1976 as in 1973, black wives were more likely than white wives to fall into the category "other nonusers," although the gap between the two groups decreased from 10.1 percentage points in 1973 to 6.3 percentage points in 1976.

The large increase in the percent sterile among couples with wives 30 years or older is due almost entirely to the increase among white couples. The percent sterile among the black couples, wife 30 and over, remained essentially constant at about 35 percent in the 2 years, while the percent sterile for white couples in this age group increased about 10 percentage points to 46.8 percent in 1976. Among couples, wife 15-29, the percent sterile increased about the same amount in both racial groups (2.5 and 2.7 percentage points among white and black couples, respectively), remaining slightly higher among white couples (11.8 percent) than among black couples (10.9 percent).

The net effect of all these changes, in terms of exposure to unplanned pregnancy, is a lessening of differences between the two racial groups. In both years, the proportion of women at risk of an unplanned pregnancy who were using a contraceptive method was higher for white women than for black women, but this percent increased for black women between 1973 and

1976 and remained stable for white women. About 87 percent of white women at risk of an unplanned pregnancy were using a method in 1973 and 1976, and the percent of black women at risk of an unplanned pregnancy who were using a method rose 5.4 percentage points to 77.1 percent in 1976. Parallel trends can be observed for the younger and older age groups.

Sterility

In the 30.2 percent of couples in which one spouse was sterile, only 1.9 percent were not surgically sterile as shown in table 1. Of the remaining 28.3 percent who were surgically sterilized, 9.0 percent reported this to be for non-contraceptive reasons and 19.3 percent reported this to be at least partly for contraceptive reasons.

Although the nonsurgically sterile accounted for only 1.9 percent of sterile couples in 1976, this was double that proportion for 1973. The frequencies are too small for reliable detailed study but may reflect better diagnosis of infertility problems.

The surgically sterile accounted for nearly all of the sterile couples, and the increase of 5.4 percentage points in this group from 1973 to 1976 accounted for most of the 27-percent increase in overall sterility between these years.

For white couples with women of all ages combined, the percent surgically sterile increase 6 percentage points from 23.1 percent in 1973 to 29.1 percent in 1976. In contrast to this, very little change occurred in the percent of surgically sterile black couples, 20.8 percent in 1973 to 21.7 percent in 1976.

For couples where the wife was under age 30, (table 2) the level and trend of surgical sterilization was similar for white and black couples. The percent of white couples, wife 15-29 years, who were surgically sterile increased 2.0 percentage points to 10.8 percent in 1976. The corresponding figure for black couples rose 1.1 percentage points to 9.2 percent in 1976.

Among the white couples, wife aged 30-44 (table 3) the increase, in surgical sterilization in the 3 years between the surveys was most dramatic. There was an increase of almost 10 percentage points from 35.0 in 1973 to 44.2 percent in 1976. In contrast to this, the percent

Table 2. Number of currently married women aged 15-29 and percent distribution by contraceptive status, according to race and Hispanic origin: United States, 1973 and 1976

Contraceptive status	Total ¹		White		Black		Hispanic Origin ²	
	1976	1973	1976	1973	1976	1973	1976	1973
Number in thousands ³								
All women.....	12,292	12,040	11,063	10,963	978	964	810	770
Percent distribution								
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Sterile couples</u>								
All sterile couples.....	11.6	9.2	11.8	9.3	10.9	8.2	*5.7	10.6
Nonsurgical.....	1.0	*0.5	1.0	0.5	1.6	*0.1	-	-
Surgical.....	10.6	8.7	10.8	8.8	9.2	8.1	*5.7	10.6
Noncontraceptive.....	2.2	*0.8	2.2	*0.8	3.8	*1.4	*0.8	-
Female.....	1.9	*0.7	1.8	*0.7	3.8	*1.4	*0.8	-
Male.....	*0.3	*0.1	*0.4	*0.1	-	-	-	-
Contraceptive.....	8.3	7.9	8.6	8.0	5.4	6.7	*4.9	10.6
Female.....	4.4	4.1	4.3	4.0	5.3	6.2	*2.8	*7.1
Male.....	3.9	3.7	4.3	4.0	*0.2	*0.4	*2.1	*3.6
<u>Fecund couples</u>								
Noncontraceptors:								
Pregnant, post partum, seeking pregnancy.....	22.5	23.0	22.0	23.0	24.3	22.8	31.7	26.1
Other nonusers.....	5.7	5.5	5.2	4.9	9.7	12.0	*4.2	*6.2
Contraceptors:								
All methods.....	60.2	62.3	61.0	62.7	55.1	57.0	58.4	57.0
Oral contraceptive pill.....	35.1	37.6	35.4	37.4	33.8	40.7	31.2	33.0
Intrauterine device.....	6.9	8.4	7.0	8.4	5.4	8.4	10.9	10.8
Diaphragm.....	2.7	1.7	2.9	1.8	*0.8	*0.8	*2.3	*1.3
Condom.....	6.5	7.0	6.7	7.4	5.0	*1.9	*6.8	*4.9
Foam.....	3.3	3.6	3.4	3.8	3.0	2.2	*3.4	*1.2
Rhythm.....	2.6	1.4	2.6	1.4	*1.9	*1.0	*2.0	*1.1
Withdrawal.....	1.7	1.0	1.7	1.1	*1.6	*0.3	*1.5	*2.6
Douche.....	*0.4	*0.3	*0.3	*0.2	2.4	*1.3	-	*0.7
Other.....	*0.9	1.1	*0.9	1.2	*1.0	*0.3	*0.3	*1.4

¹Includes white, black, and other races.²Women of Hispanic origin are included in the figures for white and black women if they were identified as such by the interviewer.³In the 1973 figures, estimates of the number of women included cases for which contraceptive status was not ascertained but was imputed. Only those cases in which contraceptive status was ascertained are included in the 1976 figures. See Technical Notes.

of surgically sterile black couples, wife aged 30-44, was stable at about 32 percent both in 1973 and 1976 and was 12 percentage points below that for white couples in 1976.

The percent of sterilizing operations performed on the male partners remained at about

38 percent for white couples over the 3 years but was very small for black couples both in 1973 and 1976.

The majority of sterilizing operations were reported as contraceptive in intent (table 1). The proportion of couples who reported a sterilizing

Table 3. Number of currently married women aged 30-44 and percent distribution by contraceptive status, according to race and Hispanic origin: United States, 1973 and 1976

Contraceptive status	Total ¹		White		Black		Hispanic origin ²	
	1976	1973	1976	1973	1976	1973	1976	1973
Number in thousands ³								
All women.....	14,892	14,606	13,454	13,286	1,167	1,117	862	906
Percent distribution								
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Sterile couples</u>								
All sterile couples.....	45.7	36.0	46.8	36.1	35.6	35.2	34.5	30.9
Nonsurgical.....	2.6	1.3	2.6	1.1	3.4	3.4	*3.0	1.3
Surgical.....	43.0	34.6	44.2	35.0	32.2	31.8	31.5	29.6
Noncontraceptive.....	14.6	11.3	14.6	11.4	13.0	10.3	14.4	9.6
Female.....	13.5	10.9	13.4	11.0	12.9	10.2	12.7	9.6
Male.....	1.1	*0.4	1.2	*0.4	*0.1	*0.1	*1.7	
Contraceptive.....	28.4	23.4	29.6	23.6	19.2	21.5	17.1	20.0
Female.....	14.0	12.2	14.0	11.6	15.9	20.0	10.9	13.8
Male.....	14.5	11.1	15.5	12.0	3.4	*1.5	*6.1	*6.2
<u>Fecund couples</u>								
Noncontraceptors:								
Pregnant, post partum, seeking pregnancy.....	5.9	7.0	5.3	6.9	10.2	6.4	10.6	12.8
Other nonusers.....	9.3	11.3	8.8	10.2	16.8	23.1	16.5	12.5
Contraceptors:								
All methods.....	39.1	45.7	39.1	46.8	37.4	35.3	38.4	43.7
Oral contraceptive pill	11.8	14.8	11.9	14.9	12.2	13.8	11.0	14.4
Intrauterine device.....	5.4	5.2	5.3	5.2	6.6	7.0	9.8	*6.9
Diaphragm.....	3.1	2.9	3.1	3.1	2.5	*1.6	*2.6	*2.2
Condom.....	7.7	11.4	8.0	12.0	4.1	4.3	*5.5	8.7
Foam.....	2.8	3.4	2.6	3.3	4.5	3.7	*3.6	*2.3
Rhythm.....	4.0	3.9	4.2	4.1	*1.0	*0.5	*4.2	*2.9
Withdrawal.....	2.3	1.8	2.3	2.0	2.0	*0.5	*0.8	*1.9
Douche.....	*0.9	*0.8	*0.8	*0.7	3.0	2.2	*0.2	*0.5
Other.....	*0.9	1.4	*0.9	1.5	*1.4	*1.5	*0.6	*3.7

¹Includes white, black, and other races.²Women of Hispanic origin are included in the figures for white and black women if they were identified as such by the interviewer.³In 1973 figures, estimates of the number of women included cases for which contraceptive status was not ascertained but was imputed. Only those cases in which contraceptive status was ascertained are included in the 1976 figures. See Technical Notes.

operation performed for noncontraceptive reasons, however, increased 2.5 percentage points from 1973 to 9.0 percent in 1976. The proportion of couples who reported a sterilizing operation for contraceptive reasons increased 2.9 percentage points to 19.3 percent in 1976.

Sterilizing operations were classified as contraceptive or noncontraceptive according to a question regarding the contraceptive intent of the operation. The wording of this question differed for the 2 data years. This wording change affected response to the question, in

most cases, lowering the percent of operations reported as contraceptive in 1976 relative to 1973. If the assumption is made that the percent of women having a surgical sterilization operation solely for medical (noncontraceptive) reasons should not change for the two surveys, then the percent of total women contraceptively sterile would be 2 to 3 percent higher in 1976 if the 1973 figures are taken as the standard. Conversely, if the percent of surgical sterilization for noncontraceptive reasons in 1976 is taken as the standard, the percent contraceptively sterile would be 2 to 3 percent lower in 1973. The motivation behind a sterilizing operation is a complex topic which is presently being studied. A more detailed report on contraceptive practices in the United States will examine this topic more closely.

Oral Contraceptive Pill

The increase in the use of oral contraceptives observed from the 1960's through 1973 has come to a halt. However, for couples in which

one partner was not sterile, no other method comes close to it in popularity.

The percent of married women aged 15-44 using the oral contraceptive pill in 1976 was 22.3 percent compared with 25.1 percent in 1973 (table 1). Although this represents a net decrease of almost 3 percentage points, the percent of contraceptors using the pill remained relatively stable, 46 percent for 1976 and 47 percent for 1973 (table 4).

Among the younger wives (15-29 years) in the sample, a 2-3 percentage point decline from about 37 percent to about 35 percent occurred among the total sampled and white women (table 2). A larger decline, about 8 percentage points, occurred among the young black wives from 40.7 percent in 1973 to 33.8 percent in 1976. As a share of all contraceptive method use other than sterilization for wives under 30, this represents about a 2 percentage point decline from about 60 to about 58 percent for white women and total women (table 5) and a 10 percentage point decline from 71.4 percent in 1973 to 61.4 percent in 1976 for black women.

Table 4. Number of currently married women aged 15-44 using contraceptives other than sterilization and percent distribution by method of contraception, according to race and Hispanic origin: United States, 1973 and 1976

Contraceptive status	Total ¹		White		Black		Hispanic origin ²	
	1976	1973	1976	1973	1976	1973	1976	1973
Number in thousands ³								
All women.....	13,225	14,183	12,005	13,094	975	944	804	835
Percent distribution								
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Oral contraceptive pill.....	46.0	47.2	45.9	46.5	48.5	57.9	43.2	46.0
Intrauterine device.....	12.5	12.5	12.4	12.3	13.4	16.9	21.5	17.4
Diaphragm.....	6.0	4.5	6.2	4.7	3.9	2.7	*5.1	*3.6
Condom.....	14.8	17.6	15.1	18.4	9.9	7.1	12.8	14.0
Withdrawal.....	4.2	2.8	4.2	2.9	4.0	*0.9	*7.3	*3.6
Foam.....	6.2	6.5	6.0	6.5	8.4	6.7	*6.5	*4.2
Rhythm.....	6.9	5.3	7.1	5.4	3.1	*1.7	*2.4	*4.5
Douche.....	1.5	1.1	1.1	*0.9	6.0	4.0	*0.2	*1.2
Other.....	1.9	2.4	1.9	2.5	2.7	2.1	*1.0	*5.3

¹Includes white, black, and other races.

²Women of Hispanic origin are included in the figures for white and black women if they were identified as such by the interviewer.

³In 1973 figures, estimates of the number of women included cases for which contraceptive status was not ascertained but was imputed. Only those cases in which contraceptive status was ascertained are included in the 1976 figures. See Technical Notes.

Table 5. Number of currently married women aged 15-29 using contraceptives other than sterilization and percent distribution by method of contraception, according to race and Hispanic origin: United States, 1973 and 1976

Contraceptive status	Total ¹		White		Black		Hispanic origin ²	
	1976	1973	1976	1973	1976	1973	1976	1973
Number in thousands ³								
All women.....	7,405	7,501	6,744	6,879	538	549	474	439
Percent distribution								
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Oral contraceptive pill.....	58.3	60.4	58.0	59.6	61.4	71.4	53.3	57.9
Intrauterine device.....	11.5	13.5	11.5	13.4	*9.8	14.7	18.7	18.9
Diaphragm.....	4.5	2.8	4.8	2.9	*1.5	*1.4	*3.9	*2.2
Condom.....	10.9	11.2	11.0	11.8	*9.1	*3.4	*11.7	*8.7
Withdrawal.....	2.8	1.6	2.9	1.7	*2.9	*0.5	*5.8	*2.2
Foam.....	5.5	5.8	5.5	6.0	*5.4	*3.9	*3.4	*1.9
Rhythm.....	4.3	2.3	4.3	2.3	*3.4	*1.8	*2.6	*4.6
Douche.....	*0.7	*0.5	*0.4	*0.3	*4.4	*2.3	-	*1.2
Other.....	1.5	1.8	1.4	1.9	*1.9	*0.6	*0.6	*2.4

¹Includes white, black, and other races.

²Women of Hispanic origin are included in the figures for white and black women if they were identified as such by the interviewer.

³In 1973 figures, estimates of the number of women included cases for which contraceptive status was not ascertained but was imputed. Only those cases in which contraceptive status was ascertained are included in the 1976 figures. See Technical Notes.

For those wives ages 30-44, pill use declined about 3 percentage points from about 15 percent in 1973 to 12 percent in 1976 for white women and total women (table 3). Pill use among older black women declined from 13.8 percent to 12.2 percent.

As a proportion of contraceptive method use other than sterilization for older women, pill use declined only about 2 percentage points for white women and total women from about 32 to about 30 percent (table 6). Among older black women, however, the share of contraceptive use other than sterilization for the pill declined about 7 percentage points from 39.2 percent to 32.6 percent.

Intrauterine Device

Although it is a highly effective method, the intrauterine device (IUD) remained much lower in popularity than the pill. In 1973, 6.7 percent of wives 15-44 years of age were using the IUD, and in 1976 about the same proportion, 6.1 percent, were using this method (table 1). The share of method use other than sterilization for the IUD remained at 12.5 percent for both years

(table 4). This method became less popular among black wives 15-29 years of age over the 3-year period, 8.4 percent used the IUD in 1973 and 5.4 percent in 1976 (table 2).

Condom

Between 1973 and 1976, use of the condom declined about 2 percentage points reducing its portion of contraceptive use other than sterilization from 17.6 percent to 14.8 percent (table 4). This small decline is present in the white and total groups but some increase in condom use is present among black couples in which the wife is under age 30 (1.9 percent in 1973 and 5.0 percent in 1976) (table 2).

Other Methods

Use of all methods other than the pill, IUD, or condom continued to be very small. Any increase or decrease in the use of individual methods should be interpreted with caution because of the small number of sample cases involved. As shown in table 1, there was little difference between the 2 years in the percent

Table 6. Number of currently married women aged 30-44 using contraceptives other than sterilization and percent distribution by method of contraception, according to race and Hispanic origin: United States, 1973 and 1976

Contraceptive status	Total ¹		White		Black		Hispanic origin ²	
	1976	1973	1976	1973	1976	1973	1976	1973
Number in thousands ³								
All women.....	5,819	6,682	5,260	6,215	436	394	331	396
Percent distribution								
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Oral contraceptive pill.....	30.3	32.4	30.4	31.9	32.6	39.2	28.6	33.0
Intrauterine device.....	13.8	11.5	13.6	11.1	17.1	19.9	25.6	15.8
Diaphragm.....	7.9	6.4	8.0	6.6	*6.8	*4.5	*6.8	*5.1
Condom.....	19.8	24.8	20.4	25.7	*10.9	*12.1	*14.4	20.0
Withdrawal.....	6.0	4.0	5.9	4.2	*5.3	*1.5	*9.4	*5.2
Foam.....	7.1	7.4	6.6	7.1	*12.1	*10.6	*10.9	*6.7
Rhythm.....	10.2	8.6	10.7	8.8	*2.7	*1.4	*2.1	*4.3
Douche.....	2.4	1.8	2.0	1.5	*8.0	*6.4	*0.6	*1.3
Other.....	2.4	3.1	2.3	3.1	*3.8	*4.3	*1.6	*8.6

¹Includes white, black, and other races.

²Women of Hispanic origin are included in the figures for white and black women if they were identified as such by the interviewer.

³In 1973 figures, estimates of the number of women included cases for which contraceptive status was not ascertained but was imputed. Only those cases in which contraceptive status was ascertained are included in the 1976 figures. See Technical Notes.

using methods other than the pill, IUD, and condom among white couples (12.4 percent in 1973 compared with 13.0 percent in 1976). However, the percent of black wives using other methods increased from 8.2 percent in 1973 to 12.8 percent in 1976.

Hispanic Origin

The large increase in surgical sterilization observed between 1973 and 1976 among the white couples in the sample was not present among couples of Hispanic origin. Among couples with wives reporting Hispanic origin, 21.6 percent were surgically sterile in 1973 compared with 20.5 percent in 1976 (table 1). For 1973 and

1976, about one quarter of the male partners among these couples were sterile.

Use of contraceptives by Hispanic couples declined from 22.9 percent in 1973 to 20.7 percent in 1976 (table 1). The IUD was more popular among women of Hispanic origin than all other women in 1973 and in 1976. In 1976, 10.4 percent of wives of Hispanic origin were using an IUD, and in 1973, 8.7 percent of wives of Hispanic origin were using an IUD.

Of those women of Hispanic origin exposed to risk of an unplanned pregnancy (not sterile, pregnant, post partum, or seeking pregnancy), 82.1 percent were using a contraceptive method in 1976, compared with 83.7 percent in 1973.

TECHNICAL NOTES

The Survey Design

The National Survey of Family Growth (NSFG) is designed to provide data on fertility, family planning, and related aspects of maternal and child health. Field work for Cycle I was carried out by the National Opinion Research

Center between June 1973 and February 1974. Field work for Cycle II was carried out by Westat, Inc., between January and September of 1976.

A multistage probability sample of women in the noninstitutionalized population of the conterminous United States was used in both

cycles. Each time, approximately 33,000 households were screened to identify the sample of women who would be eligible for NSFG, i.e., women between the ages of 15 to 44 years, inclusive, who were currently married or previously married or who were never married but had offspring presently living in the household. In households with more than one eligible woman, a random procedure was used to select only one to be interviewed. Since the interviews were always conducted with the sample person, the term "respondent" is used as synonymous with sample person. For Cycle I, interviews were completed with 3,856 black women and 5,941 women of other races. For Cycle II, interviews were completed with 2,946 black women and 5,665 women of other races. A detailed description of the sample design for Cycle I is presented in "National Survey of Family Growth, Cycle I: Sample Design, Estimation Procedures, and Variance Estimation," Series 2, Number 76, in the *Vital and Health Statistics* series. A similar report is in preparation for Cycle II.

The interview was focused on the respondent's marital and pregnancy histories, on the use of contraception and the planning status of each pregnancy, on the respondent's intentions regarding the number and spacing of future births, on maternal and family planning services, and on a broad range of social and economic characteristics. While the interviews varied greatly in the time required for their completion, they averaged about 70 minutes for Cycle I and about 58 minutes for Cycle II.

Quality control procedures were applied at all stages of the survey. These included a verification of listing completeness with unlisted dwelling units being brought into the sample, a preliminary field review of completed questionnaires for possible missing data or inaccurate administration, a 10-percent sample recheck of all households to be screened in the survey, observation of interviews in the field, and an independent recoding of a 5-percent subsample of completed interviews.

Reliability of Estimates

Since the statistics presented in this report are based on a sample, they may differ some-

what from the figures that would have been obtained if a complete census had been taken using the same questionnaires, instructions, interviewing personnel, and field procedures. This chance difference between sample results and a complete count is referred to as sampling error. In addition, the results are also subject to non-sampling error due to respondent misreporting, data processing mistakes, and nonresponse. It is very difficult, if not impossible, to obtain accurate measures of nonsampling errors. These types of error were kept to a minimum by the quality control procedures and other methods incorporated into the survey design and administration.

Sampling error, or the extent to which samples may differ by chance from a complete count, is measured by a statistic called the standard error of estimate. Approximate standard errors for estimated numbers and percentages from Cycle I are shown in tables I and II for the total and white populations and in tables III and IV for the black population. Provisional estimates for standard errors for Cycle II for total and white women can be obtained by multiplying the standard errors for these women from Cycle I by a factor of 1.1. Similarly, provisional estimates of standard errors for Cycle II for black women can be obtained by multiplying the standard errors for these women from Cycle I by a factor of 1.2.

The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the differences between the sample estimate and a

Table I. Approximate standard errors for estimated numbers for white and total women: 1973 National Survey of Family Growth

Size of estimate	Relative standard error	Standard error
50,000.....	30.0	15,000
100,000.....	21.2	21,000
200,000.....	15.0	30,000
500,000.....	9.5	47,000
1,000,000.....	6.7	67,000
2,000,000.....	4.8	95,000
5,000,000.....	3.0	151,000
10,000,000.....	2.2	216,000
20,000,000.....	1.5	311,000

Table II. Approximate standard errors for estimated percentages expressed in percentage points for white and total women: 1973 National Survey of Family Growth.

Base of percentage	Estimated percentage						
	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
100,000.....	3.0	4.6	6.4	8.5	9.7	10.4	10.6
500,000.....	1.3	2.1	2.8	3.8	4.3	4.6	4.7
1,000,000.....	0.9	1.5	2.0	2.7	3.1	3.3	3.3
3,000,000.....	0.5	0.8	1.2	1.5	1.8	1.9	1.9
5,000,000.....	0.4	0.6	0.9	1.2	1.4	1.5	1.5
7,000,000.....	0.3	0.5	0.8	1.0	1.2	1.2	1.3
10,000,000.....	0.3	0.5	0.6	0.8	1.0	1.0	1.1

Table III. Approximate standard errors for estimated numbers for black women: 1973 National Survey of Family Growth

Size of estimate	Relative standard error	Standard error
25,000.....	25.3	6,000
50,000.....	17.9	9,000
100,000.....	12.7	13,000
150,000.....	10.3	16,000
250,000.....	8.0	20,000
350,000.....	6.8	24,000
500,000.....	5.7	28,000
750,000.....	4.7	35,000
1,000,000.....	4.0	40,000

Table IV. Approximate standard errors for estimated percentages expressed in percentage points for black women: 1973 National Survey of Family Growth

Base of percentage	Estimated percentage						
	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
5,000.....	7.9	12.3	17.0	22.6	25.9	27.7	28.3
10,000.....	5.6	8.7	12.0	16.0	18.3	19.6	20.0
50,000.....	2.5	3.9	5.4	7.1	8.2	8.8	8.9
100,000.....	1.8	2.7	3.8	5.1	5.8	6.2	6.3
300,000.....	1.0	1.6	2.2	2.9	3.3	3.6	3.6
500,000.....	0.8	1.2	1.7	2.3	2.6	2.8	2.8
700,000.....	0.7	1.0	1.4	1.9	2.2	2.3	2.4
1,000,000.....	0.6	0.9	1.2	1.6	1.8	2.0	2.0

standard error. The relative standard error is the ratio of the standard error to the statistic being estimated. In this report, numbers and percentages which have a standard error that is more than 25 percent of the estimate itself are considered "unreliable." They are marked with an asterisk to caution the user but may be combined to make other types of comparisons of greater precision.

In this report, terms such as "similar" and "the same" mean that any observed difference between two estimates being compared is not statistically significant. Similarly, terms such as "greater," "less," "larger," and "smaller" indicate that the observed differences are statistically significant. The normal deviate test with a .05 level of significance was used to test all comparisons which are discussed in the text. A statistically significant difference is one large enough that in repeated samples of the same size and type as this one such a large difference would be expected to be found in less than 5 percent of the samples. Lack of comment in the text between any two statistics does *not* mean the differences was tested and found not to be significant.

Adjustment for nonsampling error due to nonresponse was made in two ways. Nonrespondent cases, as distinct from missing data items, were imputed by weighting for nonresponse within each PSU, stratum, and age-race category. In the 1973 survey, codes for missing items were imputed using a "hot deck" procedure. In the 1976 survey, imputation for missing data items has not been performed and the figures in the tables are based only on those interviews where enough information was obtained from the respondent to determine contraceptive status. As a result, in the 1976 figures, about 1,061,000 women out of an estimated 31,847,000 total ever-married women are not represented.

DEFINITIONS OF TERMS

Sterile Couples

Sterile.—A woman (or couple) was classified as sterile if she reported that it was impossible for her to have a baby.

Nonsurgical.—A woman (or couple) was classified as nonsurgically sterile if she reported

that it was impossible for her to have a baby for any reason other than a sterilizing operation. Reported nonsurgical reasons for sterility included menopause and sterility due to accident, illness, or congenital causes.

Surgical.—A women (or couple) was classified as surgically sterile if she or her husband were completely sterile due to an operation.

Since sterilizing operations are very frequently obtained exclusively or partly as methods of contraception, i.e., because of their complete effectiveness against conception rather than for purely therapeutic reasons, they have been further classified as contraceptive and non-contraceptive. In Cycle I, a sterilizing operation was contraceptive if the respondent answered "yes" to the question "Was the operation done at least partly so that you would not have any more children?" Since the avoidance of more children (conceptions) could itself be for therapeutic reasons, the question was reworded in Cycle II to "Was one reason for the operation because you had all the children you wanted?" This change in wording was expected to yield a lower percent of operations reported for contraceptive reasons than would have been reported previously. As a result, the percents of couples with contraceptive and noncontraceptive sterilization shown in this report are not completely comparable between the two surveys. Also, there is evidence that sterilizing operations classified as noncontraceptive may include some that actually were at least partly contraceptive in intent. The percent classified as contraceptive should therefore be regarded as a minimum estimate. Because of these limitations on the data, sterilizations for contraceptive reasons are reported with other causes or sterility and not, as formerly, with other methods of contraception.

Fecund Couples—Noncontraceptors

Pregnant.—A woman (or couple) was classified as pregnant if she replied affirmatively to the question "Are you pregnant now?" or for those in doubt, "Do you think you probably are pregnant or not?" A woman who reported that the onset of her last menstrual period was within the 30 days prior to the interview was automatically considered not pregnant.

Seeking pregnancy.—A woman (or couple) was classified as seeking pregnancy if she re-

ported she was not using a method at the time of interview because she wanted to become pregnant.

Post partum.—A woman (or couple) was classified as post partum if she reported she was not currently using a method, was not seeking a pregnancy, and her last pregnancy had terminated within 2 months before the date she was interviewed.

Other nonusers.—Women (or couples) who reported they were currently using no contraceptive method and could not be classified in any of the preceding categories of noncontraceptors were classified here. Among these are women who were indifferent to the chances of pregnancy, had a very low risk of pregnancy due to some fecundity impairment, or objected to contraceptive methods for personal or religious reasons. Women who used the douche following intercourse, but who did not report this as a method of contraception, were also classified here although such douching practice is known to have a very modest contraceptive effect when done very soon after intercourse.

Fecund Couples — Contraceptors

Method users.—A woman (or couple) who reported use of a contraceptive method other than a surgical sterilization at the date of interview was classified according to the specific method used. Methods used by extremely small proportions of the population such as jelly, cream suppositories, or abstinence, not in combination with any other methods, were grouped in the category "Other." Where more than one method was reported in current use, the method generally considered the most effective was used for classification purposes.

Demographic Terms

Age.—In this report, age is classified by the age of the respondent at her last birthday before the date of interview.

Race.—Classification by race, based on interviewer observation, was reported as black, white, or other. Race refers to the race of the woman interviewed.

Hispanic origin.—A respondent was classified as being of Hispanic origin if she reported her origin or descent as Mexicano, Chicano, Mex-

ican American, Puerto Rican, Cuban, or other Spanish.

In tables where data are presented for women according to race and Hispanic origin, women of Hispanic origin are included in the statistics for white and black women if they were identified as such by the interviewer.

Marital status.—Persons are classified by marital status as married, widowed, divorced, separated, or never married or as informally married, such as living with a partner or common-law spouse. Persons who are temporarily separated for reasons other than marital discord, such as vacation, illness, or Armed Forces, are classified as married. Divorced persons are those whose most recent marriage has been legally dissolved and who are free to remarry. Women with an annulled marriage, while having the legal status of never having been married, are classified together with divorced women. The cate-

gory "separated" includes those who are legally or informally separated for their most recent spouse due to marital discord. The "never married" include those who have never had a formal marriage and do not consider themselves in any of the preceding categories. However, in NSFG, only single women with offspring living in the household are included and separately classified.

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-----	*

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