

Trends in Contraceptive Use In the United States: 1982–1995

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Context: Trends in contraceptive use have implications for shifts in pregnancy rates and birthrates and can inform clinical practice of changes in needs for contraceptive methods and services.

Methods: Information on current contraceptive use was collected from a representative sample of women of reproductive age in the 1995 National Survey of Family Growth (NSFG). This information is compared with similar data from 1982 and 1988 to examine trends in use, both overall and in social and demographic subgroups.

Results: The proportion of U.S. women using a contraceptive method rose from 56% in 1982 to 60% in 1988 and 64% in 1995. As in 1982 and 1988, female sterilization, the pill and the male condom were the most widely used methods in 1995. Between 1988 and 1995, the proportion of users relying on the pill decreased from 31% to 27%, while condom use rose from 15% to 20%. The largest decreases in pill use and the largest increases in condom use occurred among never-married women and among black women younger than 25. Reliance on the IUD dropped sharply among Hispanic women, while use of the diaphragm fell among college-educated white women.

Conclusions: The decline in pill and diaphragm use and the increase in reliance on condoms suggest that concerns about HIV and other sexually transmitted diseases are changing patterns of method use among unmarried women.

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Since 1955, national fertility surveys have documented trends in the introduction, dissemination and use of contraceptives in the United States. These trends have included the rise and subsequent decline in use of oral contraceptives, the increase in reliance on contraceptive sterilization, the decline in use of the IUD and the diaphragm in the 1980s and the increase in condom use among unmarried women in the 1980s.¹

Trends in contraceptive use are important for a number of reasons: Contraceptive use is one of the most important determinants of pregnancy rates and birthrates in the United States, so contraceptive profiles provide useful information about how women and their partners control fertility, what family planning

clients may need, whether provider case-loads are typical of the national population and whether the contraceptive needs of important subpopulations are being met.² The purpose of this article is to describe the principal trends in contraceptive use between 1982 and 1995, and to identify the specific subgroups in which important changes occurred. The speculations offered as possible explanations of the trends should be viewed as hypotheses that need to be tested by detailed multivariate research.

Data Source and Methods

The primary sources of data for this article are the 1982, 1988 and 1995 rounds of the National Survey of Family Growth (NSFG). Earlier surveys are not used here because they were limited to women who had ever been married; the 1982, 1988 and 1995 data sets include women of all marital statuses. In 1982 and 1988, data were collected through a paper-and-pencil questionnaire in personal, face-to-face interviews in the homes of the sampled

women. In 1995, the data were collected in personal interviews administered with laptop computers.

The sample size was 7,969 in 1982 and 8,450 in 1988; it was increased substantially in 1995, to 10,847. The response rate was about 80% in all three surveys. The estimated numbers and percentages given in this article are weighted national estimates.

Unweighted sample sizes are shown in several tables to give the reader an indication of the reliability of the estimates. Unless otherwise noted, differences referred to in this article as increases, decreases or differentials were assessed using a two-tailed z-test and found to be statistically significant at the 5% level. The standard errors take the complex sample design into account. For 1982 and 1988, they were estimated using balanced half-sample replication. For 1995, standard errors were calculated using SUDAAN software.*

The analyses in this article focus on current use of contraceptives, including both sterilization and nonsurgical methods. Women are referred to in this article as current contraceptive users if they or their partner used at least one method in the month of interview—including male methods such as the condom, vasectomy or withdrawal.

The 1988 NSFG measured current use of methods for birth control.³ In recognition of the trend toward condom use for disease prevention, the 1995 NSFG collected information on contraceptive use for any reason, not just for birth control. This

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*Standard errors are available from the authors on request. For further details on the content of the questionnaire, sample design, fieldwork, data processing, weighting, imputation and variance estimation, see Mosher W, Design and operation of the 1995 National Survey of Family Growth, pp. 43–46 in this issue, and the references cited in that article.

Table 1. Percentage of U.S. women aged 15–44 currently using contraceptives, and percentage sexually active in the prior three months but not using a method, by selected characteristics, National Survey of Family Growth, 1982–1995

Characteristic	1982 (N=7,969)	1988 (N=8,450)	1995 (N=10,847)
Using a method	55.7	60.3	64.2
Age			
15–19	24.2	32.1	29.8
20–24	55.8	59.0	63.5
25–29	65.9	64.5	69.2
30–34	67.6	68.0	72.8
35–39	61.9	70.2	73.1
40–44	61.2	66.0	71.4
Race/ethnicity			
Hispanic	50.6	50.4	59.0
Non-Hispanic white	57.3	62.9	66.1
Non-Hispanic black	51.6	56.8	62.1
Sexually active, not using	7.4	6.7	5.2
Age			
15–19	9.9	7.6	7.1
20–24	8.2	8.1	6.0
25–29	7.1	7.5	4.7
30–34	5.8	5.4	4.4
35–39	6.4	4.6	4.3
40–44	5.6	5.5	5.1
Race/ethnicity			
Hispanic	8.5	9.6	5.6
Non-Hispanic white	6.2	5.5	5.0
Non-Hispanic black	13.6	10.3	7.0
No. (in 000s)	54,099	57,900	60,201

difference between the questions in 1988 and 1995 has little effect on most of the data presented here, but may contribute to the rise in reported use of condoms between 1988 and 1995. However, it is likely that the change in the percentage using condoms captured a real increase in use in response to concerns about HIV and other sexually transmitted diseases (STDs).

The vast majority of contraceptive users (91% in 1995) were using only one method in the month of interview. To provide comparable measures across time, we classify women relying on more than one method as using the method that is more effective at preventing pregnancy. For example, a woman who was using the pill and the condom in the month of interview was classified as using the pill, because the pill has a lower contraceptive failure rate than the condom.⁴ We do, however, describe the principal findings on use of more than one method in 1995 in the last table in this article.

Contraceptive Use

The proportion of all women aged 15–44 who were currently practicing contraception was about 56% in 1982, 60% in 1988 and 64% in 1995 (Table 1). The increase between 1982 and 1995 in the proportion using contraceptives occurred in all age-groups and among Hispanic, white and black women. The timing of the increase, however, varied among groups. For example, all of the in-

crease in contraceptive use among Hispanic women and among women aged 25–34 occurred between 1988 and 1995, but among white and black women and women aged 20–24 or 35 or older, the increase occurred over the entire period from 1982 to 1995.

In 1995, 36% of women were not using a contraceptive method in the month of interview. About 5% were sterile because of hysterectomy or for other noncontraceptive reasons. Another 9% were currently pregnant, postpartum or trying to become pregnant. Eleven percent had never had intercourse. About 6% were sexually experienced, but had not had intercourse in the last three months

and were not using contraceptives, while 5% had had intercourse in the three months preceding the interview but were not using a method.

This last group, women who had had intercourse in the prior three months but were not using a method, is often described as at risk of unintended pregnancy. The bottom panel of Table 1 shows little change in this category among white women between 1982 and 1995; however, the proportion of black women who were having intercourse but not using a method fell by almost half between 1982 and 1995, from nearly 14% to 7%.

Overall Trends

In 1982, about 30 million women aged 15–44 were practicing contraception; the number of contraceptive users grew to 35 million in 1988 and to almost 39 million in 1995 (Table 2). Between 1988 and 1995, most of the increase in contraceptive prevalence was in the number of condom users, which rose from 5.1 to 7.9 million.

In 1995, the most commonly reported methods were female sterilization, used by about

10.7 million women, and oral contraceptives, used by about 10.4 million women. The male condom and male sterilization were the next most widely used methods. The implant, the IUD, the diaphragm, foam, periodic abstinence and “other” methods were each used by fewer than one million women in 1995. The IUD was used by only 0.3 million women, and the diaphragm by 0.7 million, although each had been used by more than two million women in 1982.

Given that Cycles 4 and 5 of the NSFG were conducted seven years apart (in 1988 and 1995), the distribution of contraceptive users by method changed remarkably little. The overall proportions using female and male sterilization, foam, periodic abstinence, withdrawal and other methods in the two years were similar in 1988 and 1995.

The principal changes were the continued increase in condom use (from 12% in 1982 to 15% in 1988 and 20% in 1995) and the sharp decline in use of the IUD and the diaphragm. Two new methods—the implant and the injectable—were used by small numbers of women in 1995. However, between 1988 and 1995, trends in use varied considerably among subgroups, including the populations served by public family planning providers.

Use of Individual Methods

We now examine trends over time in use of individual methods, according to seven variables. Four (age, marital status, parity and intention to have more children) are indicators of life-cycle stage; the others (education, race and ethnicity, and ratio of household income to the federal poverty level) may be viewed as indicators of socioeconomic status. All have been

Table 2. Percentage distribution and number (in 000s) of contraceptive users aged 15–44, by current method, 1982–1995

Method	1982		1988		1995	
	%	No.	%	No.	%	No.
Sterilization	34.1	10,295	39.2	13,686	38.6	14,942
Female	23.2	6,998	27.5	9,614	27.7	10,727
Male	10.9	3,298	11.7	4,069	10.9	4,215
Pill	28.0	8,431	30.7	10,734	26.9	10,410
Implant	na	na	na	na	1.3	515
Injectable	na	na	na	na	3.0	1,146
IUD	7.1	2,153	2.0	703	0.8	310
Diaphragm	8.1	2,436	5.7	2,000	1.9	720
Male condom	12.0	3,608	14.6	5,093	20.4	7,889
Foam	2.4	711	1.1	371	0.4	161
Per. abstinence	3.9	1,166	2.3	806	2.3	883
Withdrawal	2.0	588	2.2	778	3.0	1,178
Other†	2.5	754	2.1	733	1.3	508
Total	100.0	30,142	100.0	34,912	100.0	38,663
Sample n	na	4,242	na	5,176	na	7,145

†“Other” consists of douche, sponge, jelly or cream alone and other methods. Note: na=not applicable.

Table 3. Percentage distribution of contraceptive users aged 15–44, by current method, according to race and ethnicity, 1982–1995

Method	Hispanic			Non-Hispanic white			Non-Hispanic black		
	1982 (N=245)	1988 (N=342)	1995 (N=977)	1982 (N=2,231)	1988 (N=3,142)	1995 (N=4,352)	1982 (N=1,688)	1988 (N=1,572)	1995 (N=1,606)
Female sterilization	23	32	37	22	26	25	30	38	40
Male sterilization	5	4	4	13	14	14	2	1	2
Pill	30	33	23	26	30	29	38	38	24
Implant	na	na	2	na	na	1	na	na	2
Injectable	na	na	5	na	na	2	na	na	5
IUD	19	5	2	6	2	1	9	3	1
Diaphragm	5	2	1	9	7	2	3	2	1
Male condom	7	14	21	13	15	20	6	10	20
Other	11	10	6	11	7	7	12	8	5
Total	100	100	100	100	100	100	100	100	100
No. (in 000s)	2,224	2,799	3,957	23,666	26,800	28,120	3,520	4,208	5,098

Notes: na=not applicable. In subsequent tables, totals for 1995 include methods not included in the "other methods" category: the emergency contraceptive pill, the female condom, the cervical cap and the suppository.

shown in previous research to be strongly related to contraceptive choice.⁵

Race and Ethnicity

Race and ethnicity may be viewed as an indicator of socioeconomic status, since average income and education levels are considerably lower for black and Hispanic women than for white women.⁶ Socioeconomic differences may affect family-size preferences as well as the ability to control fertility. For example, contraceptive failure rates are higher for black and Hispanic women than for white women.⁷ White women average about 2.8 lifetime pregnancies per woman; black and Hispanic women average about 5.0 pregnancies per woman.⁸

Table 3 presents data on Hispanic, non-Hispanic white and non-Hispanic black women who were practicing contraception in 1982, 1988 and 1995. (Hispanic women are not shown in subsequent tables in this article because there were not enough Hispanic women in the 1982 and 1988 samples to compute reliable statistics when the data were broken down by age, parity or other characteristics.) In 1982, 23% of Hispanic contraceptive users were relying on female sterilization; by 1995, that proportion had risen to 37%. The proportion of white contraceptive users relying on female sterilization rose between 1982 and 1988. The proportions of white contraceptive users relying on female sterilization, male sterilization and the pill remained stable

between 1988 and 1995. In contrast, pill use among Hispanic women dropped by 10 percentage points—from 33% to 23%—between 1988 and 1995, and fell by 14 percentage points—from 38% to 24%—among black women.

Trends in method use differed among these groups in at least two other important ways. First, the increase in condom use was faster among blacks and Hispanics than among whites: In 1982, whites were twice as likely to use condoms as were blacks or Hispanics (13% vs. 6–7%). By 1995, the prevalence of condom use was about 20% in all three groups.

Second, in 1982, the IUD accounted for about 19% of all use among Hispanic women, a much higher share than among white or black women. By 1995, only about 2% of Hispanic users relied on the IUD, compared with 1% of white or black women.

What underlies these remarkable trends?

Race, Ethnicity and Age

Age is a strong correlate of contraceptive choice. First, age may reflect the likelihood that a woman wants to have children in the near future, in part because average parity and average marital duration both tend to increase as age increases. Thus, the proportion wanting additional children declines. Second, fecundity declines as age increases, particularly after age 35, especially among women who are still childless.⁹

The influence of age on contraceptive use is clear in Table 4, which shows trends

Table 4. Percentage distribution of non-Hispanic white and non-Hispanic black contraceptive users aged 15–44, by current method, according to age, 1982–1995

Race/ethnicity and method	15–19			20–24			25–29			30–34			35–39			40–44		
	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995
Non-Hispanic white (N=4,352)																		
Female sterilization	0	2	0	4	4	3	11	14	14	26	30	24	38	41	36	45	48	45
Male sterilization	0	0	0	4	2	1	7	8	6	18	17	13	21	24	23	25	26	24
Pill	62	56	49	53	68	57	34	45	43	16	20	31	5	5	12	1	3	6
Implant	na	na	1	na	na	3	na	na	2	na	na	1	na	na	0	na	na	0
Injectable	na	na	8	na	na	5	na	na	3	na	na	2	na	na	1	na	na	0
IUD	0	0	0	3	0	0	9	0	1	7	2	1	8	3	1	5	3	1
Diaphragm	7	1	0	12	4	1	15	7	1	10	10	3	4	8	4	4	4	3
Male condom	23	34	36	12	17	24	12	16	25	14	13	17	13	12	17	11	11	13
Other methods	7	7	7	12	5	6	12	11	6	10	8	7	11	8	7	9	5	7
Non-Hispanic black (N=1,606)																		
Female sterilization	0	2	0	8	9	7	25	33	29	42	47	51	54	70	63	54	72	70
Male sterilization	0	0	0	1	0	0	1	0	1	2	2	2	4	1	2	3	2	4
Pill	70	75	32	66	70	42	42	46	30	24	24	24	6	6	12	4	3	6
Implant	na	na	5	na	na	5	na	na	3	na	na	1	na	na	1	na	na	0
Injectable	na	na	19	na	na	8	na	na	9	na	na	1	na	na	2	na	na	0
IUD	5	0	0	6	1	0	12	3	2	16	6	1	6	3	1	9	7	0
Diaphragm	2	0	0	3	2	1	3	1	1	2	3	1	9	5	1	3	1	1
Male condom	13	21	38	6	10	33	5	10	18	6	10	16	5	6	14	5	6	9
Other methods	10	2	5	9	9	2	12	8	5	9	8	4	17	10	3	21	10	8
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Notes: The sample sizes (unweighted denominators) for 1995 for the age-groups in this table are: 15–19, 265 for whites and 108 for blacks; 20–24, 560 for whites and 259 for blacks; 25–29, 683 for whites and 309 for blacks; 30–34, 941 for whites and 367 for blacks; 35–39, 1,001 for whites and 312 for blacks; and 40–44, 902 for whites and 261 for blacks. na=not applicable.

Table 5. Percentage of contraceptive users aged 15–44, by selected characteristics, according to method, 1982–1995

Characteristic	Female sterilization			Male sterilization			Pill			Condom			Diaphragm			IUD		
	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995
Total	23	28	28	11	12	11	28	31	27	12	15	20	8	6	2	7	2	1
Age																		
15–19	0	2	0	0	0	0	64	59	44	21	33	37	6	1	0	1	0	0
20–24	5	5	4	4	2	1	55	68	52	11	15	26	10	4	1	4	0	0
25–29	14	17	17	6	6	5	35	45	39	11	16	24	12	6	1	10	1	1
30–34	31	33	29	15	14	10	16	22	28	12	12	18	8	9	2	9	3	1
35–39	42	45	41	18	20	19	6	5	11	12	12	17	4	8	3	8	3	1
40–44	45	51	50	23	22	20	1	3	6	11	11	12	4	4	3	6	4	1
Marital status																		
Never-married	4	6	9	2	2	1	53	59	44	12	20	30	13	5	1	5	1	1
Currently married	27	31	31	16	17	17	19	21	20	14	14	17	7	6	2	7	2	1
Formerly married	39	51	49	3	4	4	28	25	21	2	6	15	7	5	1	12	4	1
Education†																		
≤11 yrs.	40	52	54	8	7	6	22	23	14	9	6	14	2	1	0	12	4	1
12 yrs.	27	34	38	14	15	13	28	29	22	9	11	15	4	3	1	6	2	1
≥13 yrs.	19	21	18	11	13	12	24	29	31	14	16	24	14	10	3	8	2	1
Income‡, §																		
≤149%	26	37	41	6	4	3	36	36	24	9	13	18	6	2	1	8	3	1
150–299%	25	32	30	10	12	11	26	29	27	12	14	19	7	5	1	7	2	1
≥300%	21	22	20	14	14	15	26	30	28	14	16	23	10	8	3	7	2	1
Intends to have more children																		
Yes	0	0	0	0	0	0	51	59	51	15	22	32	15	8	2	6	1	1
No	40	46	46	19	19	18	13	13	13	10	10	13	4	4	2	7	3	1

†Women aged 20–44 only. ‡% of federal poverty level.

for white and black women in five-year age-groups. The proportion of white contraceptive users relying on female sterilization in 1995 was 3% at ages 20–24 and 45% at ages 40–44. In contrast, the proportion using the pill dropped from 57% at ages 20–24 to 6% at ages 40–44.

More interesting, however, are the trends that occurred in the period between 1988 and 1995. Among white contraceptive users, the proportion using the pill decreased among women younger than 25 and rose among those aged 30–44. Increases in condom use occurred among white contraceptive users in all age-groups, but generally were not dramatic.

Among black contraceptive users, however, some striking changes occurred. Among black teenagers, for example, the proportion using the pill dropped from 75% to 32% between 1988 and 1995. By 1995, 19% of black teenage method users were using the injectable.

Large drops in pill use also occurred among black women aged 20–24 and 25–29, but these declines were partially offset by the adoption of the injectable and the implant. The increase in condom use among blacks from 1988 to 1995 was most pronounced among teenagers (from 21% to 38%) and among women aged 20–24 (from 10% to 33%). Changes at other ages were comparable to the changes among white women.

Other Characteristics

Patterns of method choice also varied markedly by socioeconomic and demographic characteristics other than age, race and ethnicity—marital status, education, income and fertility intentions (Table 5). Marital status is related to age and life-cycle stage: Never-married women tend to be the youngest and thus may be delaying childbearing. Married and formerly married women are older and are more likely to have finished childbearing. In addition, unmarried women are more likely than married women to have more than one sexual partner, and may therefore be more concerned about HIV and other STDs.

Education and family income may be viewed as indicators of socioeconomic status, which may affect the opportunity cost of children and preferences for children compared with other goals, the status of the woman in relation to her husband or partner, her ability to afford health care and obtain health insurance, and her access to and understanding of health-related information.

A woman's intention to have more (or any) children indicates whether sterilization is an option for her or her partner. Childbearing intentions may be affected by such factors as age, marital status, parity and socioeconomic status.

In 1995, the pill was used primarily by women younger than 30, never-married

women, women with one or more years of college education and those who intended to have more children. In contrast, female sterilization was most commonly used by women in their 30s and 40s, formerly married women, those with the least education and income, and Hispanic and black women.

Trends in method use also differed by these socioeconomic and demographic characteristics.

- **Age.** The decline in use of the pill from 1988 to 1995 was greatest among teenagers (from 59% to 44%) and women aged 20–24 (from 68% to 52%). Condom use rose in every age-group, but increased most among women in their 20s.

- **Marital status.** The decline in pill use between 1988 and 1995 was greatest among never-married women (from 59% to 44%). Condom use increased sharply among both never-married (from 20% to 30%) and formerly married women (from 6% to 15%). Changes among currently married women were small.

- **Education.** Data are shown by education only for women aged 20–44 years because most teenagers (15–19-year-olds) have not finished their education. Between 1988 and 1995, pill use declined among women with a high school education or less; there was no decrease among those with a college education. Condom use rose in all three educational groups. In 1988, the pro-

Table 6. Percentage distribution of non-Hispanic white and non-Hispanic black contraceptive users aged 15–44, by current contraceptive method, according to marital status and parity, 1982–1995

Race/ethnicity and method	Marital status									No. of births								
	Currently married			Never-married			Formerly married			0			1			≥2		
	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995
Non-Hispanic white																		
Female sterilization	26	30	29	1	2	3	36	49	44	1	3	3	8	16	13	37	44	43
Male sterilization	17	20	20	2	2	1	5	5	5	5	6	5	11	10	9	18	22	21
Pill	18	19	21	53	60	52	31	28	23	51	57	52	35	32	33	10	10	12
Implant	na	na	1	na	na	2	na	na	1	na	na	1	na	na	2	na	na	1
Injectable	na	na	2	na	na	4	na	na	3	na	na	2	na	na	6	na	na	1
IUD	6	2	1	3	1	0	9	3	1	3	1	0	10	2	1	6	2	1
Diaphragm	7	7	3	17	6	1	8	7	2	16	7	2	12	10	2	5	5	2
Male condom	15	15	17	14	22	30	2	5	16	14	20	28	12	17	25	13	11	13
Other	11	8	7	10	7	6	10	5	6	10	7	7	12	12	7	11	6	6
Non-Hispanic black																		
Female sterilization	37	48	54	13	19	23	55	66	66	0	1	3	3	16	13	51	66	68
Male sterilization	4	2	5	0	0	0	0	0	1	1	1	1	0	1	1	2	1	2
Pill	25	25	19	58	56	31	19	16	13	61	65	42	63	55	38	19	17	10
Implant	na	na	1	na	na	4	na	na	2	na	na	1	na	na	5	na	na	2
Injectable	na	na	2	na	na	8	na	na	2	na	na	4	na	na	11	na	na	4
IUD	10	3	1	8	3	1	12	6	0	5	1	1	11	5	1	11	3	1
Diaphragm	4	3	2	3	2	1	3	2	0	4	3	1	2	4	2	3	1	0
Male condom	7	10	12	8	13	28	2	4	12	13	20	38	6	10	24	4	5	10
Other	14	10	5	10	8	5	11	6	3	16	9	8	14	9	4	10	7	3
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note: na=not applicable.

portion of women using the diaphragm was highest among college-educated women (10%); the decline in use of that method between 1988 and 1995 was sharpest in that group (from 10% to 3%).

•*Income.* The income variable used in this article, a ratio of the family’s income to the federal poverty level, is divided into three categories: an income less than 150% of the poverty level (low income), an income 150–299% of the poverty level and an income of 300% or more of the poverty level. As with education, teenagers are excluded because most have not yet begun to earn their own income, and adolescents are less able than adults to estimate household income.

The decline in pill use from 1988 to 1995 was quite dramatic among low-income women (from 36% to 24%), but was not significant in the other income groups. Condom use, however, rose in all three groups.

•*Intent to have more children.* The decline in pill use and the increase in condom use occurred mainly among women who intended to have more children at some time in the future (Table 5). There were virtually no changes in the pattern of method use among women who did not intend to have any more births.

In sum, the decline in pill use between 1988 and 1995 occurred primarily among the young, the less-educated, women with low income, the never-married, black and Hispanic women and women who intended to have children in the future. The

increase in condom use was more widespread, occurring in virtually every subgroup, although it was not statistically significant in every group.

Marital Status

Data on contraceptive use among non-Hispanic white and non-Hispanic black women, according to marital status, are shown in Table 6.

•*Currently married women.* What is remarkable about contraceptive use among married white women is that so little change occurred: The proportions using female sterilization, male sterilization, the pill and the condom all remained fairly stable between 1982 and 1995. Among black married women, however, reliance on female sterilization increased from 37% to 54% during that period, and the proportion using the pill declined from 25% to 19%.

•*Never-married women.* The changes among unmarried women were far more dramatic than those among married women. Among never-married white women, the proportion using the diaphragm dropped from 17% in 1982 to 1% in 1995, while the proportion using the male condom doubled, from 14% to 30%. Among never-married black women, the largest change was a drop of 25 percentage points in pill use—from 56% in 1988 to 31% in 1995. The proportion of never-married black women using the condom rose by 15 percentage points between 1988 and 1995. In this group, about 12% of women were using

newly available methods—the implant and the injectable—in 1995.

•*Formerly married women.* Female sterilization was the leading method in this group in all three survey years. Nearly half of white women and two-thirds of black women in this category relied on female sterilization in 1995 (44% and 66%, respectively). Other methods, however, showed sharp changes: Use of the IUD and the diaphragm dropped to 1–2% among whites and to almost zero among blacks. In contrast, the proportion of formerly married women of either race using the condom was 2% in 1982, but had increased to 16% of whites and 12% of blacks by 1995—again, probably a response to concerns about HIV and STDs.

Parity

Table 6 also shows data on contraceptive use by parity—the number of births a woman has had. About half of white contraceptive users with no births were using the pill in each of the three surveys. In contrast, these women virtually abandoned the diaphragm over the period (16% were using the diaphragm in 1982, while only 2% were doing so in 1995). The drop in diaphragm use was offset by the large increase in condom use (from 14% to 28%). Among childless black women, on the other hand, the proportion using the pill dropped from 65% in 1988 to 42% in 1995, and the proportion using the condom soared from 20% to 38%.

The trends for women with one child

were similar—a decline in diaphragm use among white women, a big decline in pill use among black women and increases in condom use in both groups. In contrast, for women with two or more births, the changes in use of most methods, including the condom, were relatively modest.

Race and Education

Table 7 shows contraceptive use by education for non-Hispanic white and non-Hispanic black women aged 20–44. (Sample sizes for Hispanics were not large enough in 1982 and 1988 to provide stable estimates when broken down by educational attainment.) Teenagers (15–19 years of age) are excluded from statistics by education and income because most have not finished their education or begun to earn their own income.

• *Differentials.* In each educational category, black contraceptive users were more likely than white contraceptive users to rely on female sterilization and less likely to use male sterilization. The proportion of all use in 1995 accounted for by male and female sterilization together, however, was about equal: Among women with 12 years of education, for example, 52% of whites and 50% of blacks relied on either male or female sterilization.

Differences by race within educational categories in the proportions using the pill and the condom were small and not statistically significant: For example, among contraceptive users with some college education, 23% of whites and 22% of blacks

relied on the condom in 1995.

Method choice differed sharply by education, with less-educated contraceptive users being much more likely than their more-educated counterparts to rely on female sterilization: Among white women, 50% of those with fewer than 12 years of education were using female sterilization in 1995, compared with 16% of those with at least some college education. For blacks, the proportion of women with fewer than 12 years of education who relied on female sterilization was double the proportion among those who had attended college (65% vs. 32%). College-educated black women were twice as likely as college-educated white women to rely on female sterilization (32% vs. 16%).

While female sterilization was the leading method among the least-educated women, the pill was the most common choice among white women with at least some college education. In 1995, the proportion of white contraceptors using the pill was 13% among women with the least education and 33% among those with the most. A similar pattern was evident among black women (11% and 29%, respectively). Condom use was also higher among college-educated women than among women with less education.

• *Trends.* The proportion of white women with 0–11 or 12 years of education who used the pill dropped between 1988 and 1995. Among white women with at least some college education, however, the proportion using the pill rose slightly, from

28% to 33%. Among black women, pill use declined between 1988 and 1995 in all three educational groups. Condom use increased sharply in all three educational groups of black women, but for white women the pattern of condom use was less regular.

Income

Most changes in contraceptive use for white women in the upper two income groups were fairly small between 1988 and 1995. For low-income white women (0–149% of the federal poverty level), however, the proportion using the pill declined from 36% to 25% between 1988 and 1995. For black women, the proportion using the pill dropped from 41% in 1988 to 20% in 1995 among low-income women, and from 41% to 24% among middle-income women. Among high-income black women, the changes between 1988 and 1995 were smaller.

Use of Multiple Methods

Concern about HIV and other STDs has prompted growing interest in promoting, and determining the extent of, dual method use—particularly in fostering use of the condom in combination with the pill. In response to this interest, both the 1988 and the 1995 NSFG allowed for coding of up to four methods used in the month of interview. Of the 10,847 women in the 1995 sample, 7,145 were using one or more methods. Of these 7,145 women, 562 (7.9% of users) were using two methods, 106 (1.5% of users) were using three

Table 7. Percentage distribution of non-Hispanic white and non-Hispanic black contraceptive users aged 20–44, by current method, according to education and income, 1982–1995

Race/ethnicity and method	Years of education									Income as % of federal poverty level								
	≤11			12			≥13			≤149%			150–299%			≥300%		
	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995	1982	1988	1995
Non-Hispanic white																		
Female sterilization	39	54	50	26	33	36	17	19	16	23	35	41	25	30	30	21	21	20
Male sterilization	12	10	11	16	18	16	12	15	14	11	7	7	13	14	14	16	16	17
Pill	22	21	13	26	28	22	22	28	33	33	36	25	21	27	26	23	29	28
Implant	na	na	2	na	na	1	na	na	1	na	na	3	na	na	1	na	na	1
Injectable	na	na	2	na	na	3	na	na	1	na	na	3	na	na	2	na	na	2
IUD	4	2	1	5	1	0	8	2	1	6	2	1	6	2	1	7	1	1
Diaphragm	3	2	0	4	3	1	16	11	4	9	3	1	8	5	2	11	8	3
Male condom	11	6	14	10	11	14	15	17	23	8	14	14	12	14	17	14	16	21
Other	9	5	7	13	6	6	10	9	7	10	3	6	15	7	7	9	9	
Non-Hispanic black																		
Female sterilization	54	64	65	34	43	48	23	31	32	40	41	52	30	39	41	22	32	36
Male sterilization	1	0	—	1	1	2	3	2	2	0	0	0	1	0	2	5	2	4
Pill	18	20	11	39	38	22	37	35	29	32	41	20	40	41	24	34	33	27
Implant	na	na	4	na	na	2	na	na	2	na	na	2	na	na	1	na	na	3
Injectable	na	na	4	na	na	5	na	na	3	na	na	5	na	na	3	na	na	3
IUD	11	3	0	9	3	1	11	4	1	11	3	2	8	3	1	11	4	0
Diaphragm	1	0	—	2	1	1	7	5	2	2	1	0	3	2	1	7	4	2
Male condom	4	6	14	6	7	17	6	12	22	5	9	15	6	8	22	7	13	19
Other	12	6	2	10	7	3	14	12	7	11	6	3	12	7	4	15	12	7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note: na=not applicable.

Table 8. Number (in 000s) of women aged 15–44, and percentage currently using specified contraceptive method combinations, by selected characteristics

Characteristic	N (000s)	Condom*	Condom only	Pill and condom	Condom and withdrawal	Condom and calendar rhythm	Condom and foam	Calendar rhythm and withdrawal
Total	38,302	23.4	16.2	2.6	2.1	1.2	0.4	1.0
Age								
15–19	2,651	46.1	28.9	8.5	7.9	0.8	0.4	1.0
20–24	5,684	33.7	21.7	6.9	2.7	0.6	0.1	0.5
25–29	6,632	27.6	21.1	3.2	2.4	1.1	0.0	0.8
30–34	8,005	20.5	14.0	1.8	1.4	1.7	1.0	1.4
35–39	8,137	17.7	12.9	0.4	0.9	1.4	0.4	0.7
40–44	7,193	12.8	8.9	0.1	1.3	1.4	0.6	1.3
Marital status								
Never-married	10,450	37.9	24.6	7.4	3.8	1.1	0.3	0.7
Currently married	22,508	18.0	13.3	0.5	1.6	1.5	0.5	1.2
Formerly married	5,343	17.7	12.3	2.3	0.8	0.2	0.6	0.5
Education†								
≤11 yrs.	4,035	14.3	12.5	0.3	0.7	0.3	0.2	0.0
12 yrs.	13,786	17.0	12.2	1.7	1.4	0.8	0.2	0.7
≥13 yrs.	17,830	27.1	18.3	3.0	2.1	1.9	0.7	1.4
Income‡								
≤149%	7,639	17.3	11.8	1.8	1.5	0.8	0.2	0.5
150–299%	11,271	21.5	15.5	2.9	1.4	0.9	0.3	0.6
≥300%	16,742	23.9	16.8	1.9	1.9	1.7	0.7	1.4
Parity								
0 births	11,414	37.7	24.2	6.8	3.9	1.9	0.5	1.4
1 birth	6,785	28.5	21.1	2.3	2.1	1.2	0.7	0.6
≥2 births	20,103	13.6	10.0	0.4	1.1	0.9	0.3	0.8
Race/ethnicity								
Hispanic	3,862	21.7	17.1	0.6	1.9	1.0	0.4	0.5
Non-Hispanic white	27,983	22.6	15.4	2.6	2.2	1.2	0.5	1.1
Non-Hispanic black	5,027	25.0	17.3	4.2	1.6	0.5	0.3	0.3
No. of male partners in last 12 months§								
1	8,548	28.8	18.7	4.6	2.9	1.1	0.4	0.9
2	3,023	35.5	24.0	7.7	2.9	0.0	0.2	0.5
≥3	2,922	39.9	26.0	8.7	3.0	0.3	0.3	0.2

*Condom used alone or with any other method. †Women aged 20–44 only. ‡As % of federal poverty level. §Unmarried women only.

methods and 11 (0.2%) were using four.

Table 8 shows the most common two-method combinations reported in the NSFG. (The table excludes 104 cases—1%—that had imputed values on current contraceptive status.) As the table indicates, more than two-thirds of those using the condom (16% out of 23%) were relying on the condom alone. But virtually all users of multiple contraceptives were using the condom as one of their methods.

When coding was based on whether condoms were used at all rather than on whether condoms were the primary (most effective) method, the proportion reporting condom use rose from 20% (see Table 2) to 23% (Table 8), and the number of users rose from 7.9 million to 9.0 million. The main difference between the two sets of statistics is that nearly 3% of contraceptive users were using oral contraceptives along with the condom in 1995 and were therefore classified as pill users in Table 2. About 16% used the condom only, while 0.4% used the condom and foam.

One might expect that dual method use would be more effective than use of a single method, but this may not always be the case. For example, 2% of 1995 NSFG respondents used the condom and withdrawal, while 1% used the condom and calendar rhythm; it is not clear a priori that these combinations are markedly more effective than using the condom alone. A few women reported combining the condom with other methods; these combinations are not shown separately, but are included in the totals in the first column of Table 8. The only numerically important combination that did not include the condom was calendar rhythm and withdrawal, which was used by 1% of contraceptive users (about 380,000).

Who uses these combinations? Table 8 indicates that the contraceptive users most likely to rely on the combination of the pill and the condom were the young (9% of teenagers and 7% of 20–24-year-olds) and the unmarried (7% of the never-married, most of whom were 15–24, and 8–9% of

unmarried women with two or more sexual partners in the previous 12 months).

The contraceptive users who most commonly reported relying on the condom-withdrawal combination were teenagers (8%), the never-married (4%) and the childless (4%). The proportions using this combination were 3% or lower in all other categories. The condom–calendar rhythm combination and the condom and foam pairing were used less frequently and did not appear to be markedly concentrated in any of the groups shown in the table.

Discussion

The principal trend in contraceptive method choice in 1988–1995 was an increase in condom use, especially among women who were younger than 25, black or Hispanic, or unmarried. In contrast, there was little change in condom use among married couples. Further, the increase in condom use was accompanied by a decrease in use of other methods that do not prevent HIV and STDs—particularly the pill and the diaphragm. Finally, use of the condom at first premarital intercourse increased dramatically in the 1980s and 1990s.¹⁰

Taken as a whole, the data suggest that concern about HIV and STDs was one of the principal factors prompting these trends; detailed research to test this speculation is needed. Among unmarried white women, the rise in condom use was associated with a decrease in use of the pill and the diaphragm. Increases in use of the condom, the implant and the injectable offset a very sharp decrease in pill use among never-married black women. Hispanic women also experienced more widespread condom use and declines in use of the IUD and the pill.

This brief, broad description of recent trends in contraceptive use suggests a number of questions for further research. Have individual women and their partners stopped using the pill and diaphragm and switched to the condom? Individual patterns of method switching could be reconstructed using the method histories in the 1995 NSFG. Or are the trends described in this article a result of one generation being replaced by younger cohorts of women who have different patterns of method use?

If public concern about HIV abates, will unmarried women return to the pill in large numbers? How will changes in the delivery of health care affect method choice and the effectiveness of contraceptive use?

Since the 1960s, there has been a trend

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toward delayed marriage and childbearing. How do these trends affect contraceptive use? Also, what is the impact of increased racial and ethnic diversity in the population? We hope that the data presented here will stimulate further research on these and other topics, and help to inform clinical practice.

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