ARTICLES

# Abortion Patients in 1994–1995: Characteristics and Contraceptive Use

By Stanley K. Henshaw and Kathryn Kost

*Results of a 1994–1995 national survey of 9,985 abortion patients reveal that women who live with a partner outside marriage or have no religious identification are 3.5–4.0 times as likely as women in the general population to have an abortion. Nonwhites, women aged 18–24, Hispanics, separated and never-married women, and those who have an annual income of less than $15,000 or who are enrolled in Medicaid are 1.6–2.2 times as likely to do so; residents of metropolitan counties have a slightly elevated likelihood of abortion. When age is controlled, women who have had a live birth are more likely to have an abortion than are those who have never had children. Catholics are as likely as women in the general population to have an abortion, while Protestants are only 69% as likely and Evangelical or born-again Christians are only 39% as likely. Since 1987, the proportion of abortions obtained by Hispanic women and the abortion rate among Hispanics relative to that for other ethnic groups have increased. The proportion of abortion patients who had been using a contraceptive during the month they became pregnant rose from 51% in 1987 to 58%. Nonuse is most common among women with low education and income, blacks, Hispanics, unemployed women and those who want more children. The proportion of abortion patients whose pregnancy is attributable to condom failure has increased from 15% to 32%, while the proportions reporting the failure of other barrier methods and spermicides have decreased.* (Family Planning Perspectives, **28:**140–147 & 158, 1996)

Annual national data describing women having abortions in the United States cover only basic demographic characteristics—age, race, ethnicity, marital status, and prior births and abortions—as well as the procedure used for the abortion and the length of the pregnancy. This information is collected by most states, and it is compiled and published at the national and state levels by the Centers for Disease Control and Prevention (CDC). However, some states have no abortion reporting system, and the CDC reports understate the number of abortions performed. The Alan Guttmacher Institute (AGI) conducts periodic surveys of all abortion providers throughout the country and uses the results together with the CDC data to estimate the number of abortions nationwide and the abortion rate according to a variety of characteristics.[1]

This article reports information from a 1994–1995 AGI survey detailing a broad range of characteristics of abortion patients—socioeconomic status, religious affiliation, residence, childbearing intention and contraceptive use prior to the pregnancy. The survey, part of a larger project to update contraceptive failure rates, obtained usable questionnaires from 9,985 respondents in a stratified national sample of 100 clinics, hospitals and physicians' offices in all regions of the country. This information updates the findings from a similar 1987 survey of 9,480 abortion patients in a stratified national sample of 103 facilities.[2]

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## Methodology

### *Data Collection*

Data were collected by means of a self-administered questionnaire, available in both English and Spanish, which the staff of abortion facilities distributed to patients. The facilities decided when to present the questionnaire to patients; most gave it to women to complete along with other paperwork while they waited for the procedure. Attached to the questionnaire was an introduction explaining that the survey was voluntary, anonymous and for research only.

The questionnaire was a single sheet of paper with questions on both sides covering women's characteristics and prior contraceptive use. Because data from the 1995 National Survey of Family Growth (NSFG) were to be used in conjunction with findings from this survey to calculate contraceptive failure rates, the questions had been slightly revised since 1987, to replicate to the extent possible those used in the 1995 NSFG.

The facilities selected for the study were drawn from a list of all hospitals, clinics and physicians' offices where abortions are performed. The list, which had been updated in 1993 for AGI's periodic survey of abortion providers, was stratified by provider type (hospital or nonhospital facility) and by the number of abortions performed in 1992, rounded to the nearest 10 (30–390; 400–1,990; 2,000–4,990; or 5,000 or more). Facilities that reported fewer than 30 abortions were impractical to survey, but their exclusion would cause little bias, since they accounted for only 0.4% of all reported abortions in 1992.[3]

Within each stratum, facilities were listed by state, and states were arranged geographically within census region; for our analysis, we selected facilities at equal intervals on the list (such as every fifth or every seventh one), depending on the stratum. Each facility was asked to adminis-

ter the questionnaire to every woman who obtained an abortion during a specified time period ranging from two to 12 weeks, depending on the facility's caseload. If a facility declined to participate or did not obtain usable questionnaires from at least half of the target women throughout the specified time, it was replaced by the next facility on the list, which in most cases was in the same or a neighboring state and in the same region.

We initially sampled 113 abortion providers—19 hospitals and 94 nonhospital facilities. Of these, 11 and 46, respectively, had to be replaced—31 facilities were unable or unwilling to participate, 11 had closed, 11 were unable to administer the survey for the required number of weeks or had a response rate of less than 50%, and four had caseloads that had fallen below 30 per year. (In some cases, the replacement facilities also had to be replaced.) Nine of the hospitals and 18 of the other facilities that had to be replaced performed 30–390 abortions a year. Since facilities of this size provide only 9% of all abortions, selection bias among them would have had only a small effect on the sample. We ultimately obtained usable data from 13 hospitals and 87 nonhospital facilities; the 13 facilities that could not be replaced were in the smallest caseload category.

Participating facilities were asked to report the number of abortions they performed during the specified time frame; the total came to 11,288. Usable questionnaires were obtained from 9,985 of the women, for a response rate of 88%. At our request, the providers supplied information about the age, race, ethnicity and Medicaid coverage of 562 nonrespondents; no information was available for the remaining 741 nonrespondents. Most nonresponse resulted from women's refusal to participate, facilities' failure to distribute questionnaires or lack of time for the patient to complete the questionnaire. Of the usable responses, 87% were obtained during the second half of 1994 and 13% during the first half of 1995.

To correct for any bias produced by deviation from the original sampling plan and nonresponse, a three-stage weighting process was followed. First, individual weights were developed to adjust for the demographic characteristics of the 562 nonrespondents for whom the facilities provided data. Second, facility-level weights were used to adjust for the other 741 nonrespondents. Third, stratum weights were constructed to correct for departures from the number of facilities to be sampled in each grouping by caseload and provider type. With the final weight adjusted to a mean of 1.0, the standard deviation was 0.22 and the range was 0.54–3.27.

The rate of nonresponse on individual items was generally 2–4%, but ranged from less than 2% on Medicaid coverage to 20% on household income. Instead of assuming that the nonrespondents were similar to all those who had answered a question, we imputed missing information on the basis of the responses of other women with similar characteristics, using a "hot-deck" procedure.*

For a sample of 9,985, the 5% confidence interval is ±1% for a proportion of 50%, and less for proportions other than 50%. Because the sample was clustered and weighted, we have used the 3% significance level, for which the confidence interval is ±1.1% or less. All of the differences noted in this article are significant at the 3% level. Since nonrandom error is always a possibility in survey research, however, one should be cautious in drawing conclusions from small differences.

### *Representativeness of the Survey*

As a check on the representativeness of the survey, we compared the results with the adjusted CDC compilations of state reports for 1991,[4] the latest year for which detailed statistics have been published.† Of the characteristics on which comparisons were possible (age, race, ethnicity, marital status, parity and number of prior abortions), the results were within two percentage points of each other for all subgroups except "other" race (not white or black) and Hispanic ethnicity.

In our survey, 8% of abortion patients reported their race to be Asian, Pacific Islander, American Indian or Alaskan native; in the adjusted CDC statistics, by comparison, the proportion in these racial groups is 4%. There are three possible reasons for the discrepancy: First, the 1991 CDC statistics include no data on abortion patients' characteristics for California, which has a large Asian population. Second, in the AGI survey, 12% of those who reported their ethnicity as Hispanic, a relatively large proportion, reported their race as American Indian or Asian; clinic staff who complete state abortion reporting forms probably tend to record Hispanics as white or black. Excluding Hispanic women, 5% of respondents in the AGI survey were of races other than white or black. Third, the proportion of Asians in the U.S. population grew between 1991 and 1994–1995.

An even larger percentage-point difference emerged in the proportion of women reported to be Hispanic: 20% in the survey and 13% in the adjusted CDC statistics. One possible explanation for this difference is that the survey may have sampled facilities that happened to have a large proportion of Hispanic patients. Since Hispanic patients tend to be concentrated in certain clinics and in certain states, the survey design produces a higher standard error for this characteristic than for variables that are more uniformly distributed among facilities.

Two other factors, however, could have caused the state statistics compiled by the CDC to underestimate the proportion of Hispanics among women having abortions. First, as noted, characteristics are not known for abortion patients in California, which has both a high abortion rate and a high proportion of Hispanics. Second, CDC reports have indicated that sharp increases have occured in the proportion of abortions obtained by Hispanic women: 10% in 1990, 14% in 1991 and 15% in 1992.[5] While this rate of increase is unlikely to continue, the Hispanic proportion may well have been higher in 1994–1995 than it was in 1991.

Overall, the comparison with adjusted CDC data offers reassurance that the survey accurately represents the universe of women having abortions. Even if the survey represented the universe perfectly, some differences between the two data sources would be likely because the 1991 CDC data are based on only 45–55% of all abortions, depending on the characteristic, and on only 33% of abortions among Hispanic women. In addition, changes may have occurred between 1991 and 1994–1995.

### *Abortion Indices*

We were unable to calculate the abortion rate (the number of abortions per 1,000 women) for each subgroup because the total number of abortions performed in 1994 or 1995 is unknown. Instead, we have created an abortion index that allows subgroups to be compared in the same way they could be if their rates were known.

The index is equivalent to the ratio of

*For each item requiring imputation, correlations and cross-tabulations were used to identify the variables most strongly associated with it. Respondents were sorted according to these variables in the order of the strength of the item's association with the variable to be imputed, so that similar cases were adjacent to one another in the file. A missing value was then replaced by the value of the preceding case in the file.

†Unpublished tables showing adjusted characteristics of abortion patients for 1989–1991 are available from the authors. For a description of the adjustments made to CDC data, see reference 1.

**Table 1. Percentage distribution of U.S. abortion patients, and of all women aged 15–44, 1994–1995; index of abortion incidence, 1994–1995; and age-standardized index, 1994–1995 and 1987; all by selected characteristics**

| Characteristic | % distribution | | Abortion index, 1994–1995 | Age-standardized index | | Characteristic | % distribution | | Abortion index, 1994–1995 | Age-standardized index | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Abortion patients | Women 15–44† | | 1994–1995 | 1987 | | Abortion patients | Women 15–44† | | 1994–1995 | 1987 |
| **Age-group** | | | | | | **Religion§§ (cont.)** | | | | | |
| <15 | 1.2 | u | na | na | na | White non-Hispanic | | | | | |
| 15–17 | 8.8 | 8.8 | 1.01 | na | 1.15‡ | Protestant | 17.8 | 37.2 | 0.48 | 0.49 | 0.57 |
| 18–19 | 11.5 | 5.7 | 2.01 | na | 2.23‡ | Catholic | 13.5 | 23.8 | 0.57 | 0.63 | 0.74 |
| 20–24 | 32.8 | 15.2 | 2.16 | na | 1.95‡ | All others | 68.7 | 39.0 | 1.76 | 1.65 | u |
| 25–29 | 21.4 | 16.1 | 1.33 | na | 1.18‡ | | | | | | |
| 30–34 | 14.4 | 18.8 | 0.77 | na | 0.64‡ | Born-again/Evangelical | | | | | |
| 35–39 | 7.5 | 18.6 | 0.40 | na | 0.35‡ | Yes | 18.0 | 46.0 | 0.39 | 0.39 | 0.51 |
| ≥40 | 2.3 | 16.8 | 0.14 | na | 0.12‡ | No | 82.0 | 54.0 | 1.52 | 1.53 | 1.23 |
| **Race** | | | | | | **Education** | | | | | |
| White | 61.3 | 81.2 | 0.76 | 0.76 | 0.83 | ≤8th grade | 4.2 | 4.7 | 0.89 | 0.84‡‡ | u |
| Black | 31.1 | 14.0 | 2.23 | 2.12 | 1.99 | 9th–11th grade | 16.9 | 16.4 | 1.03 | 0.97‡‡ | u |
| Other | 7.6 | 4.9 | 1.56 | 1.55 | 1.07§ | H.S. graduate or GED | 30.4 | 30.1 | 1.01 | 0.96‡‡ | u |
| **Ethnicity** | | | | | | Some college or associate's degree | 34.9 | 30.0 | 1.16 | 1.11‡‡ | u |
| Hispanic | 20.2 | 10.6 | 1.90 | 1.75 | 1.44 | College graduate | 13.7 | 18.8 | 0.73 | 0.93‡‡ | u |
| Non-Hispanic | 79.8 | 89.4 | 0.89 | 0.90 | 0.96 | | | | | | |
| **Marital status** | | | | | | **Enrolled in school** | | | | | |
| Married | 18.4 | 49.9 | 0.37 | 0.57 | 0.52 | Yes | 30.3 | 24.6 | 1.23 | 1.13‡‡ | 1.51‡‡ |
| Separated | 7.2 | 3.3 | 2.17 | 2.83 | 2.62 | No | 69.7 | 75.4 | 0.92 | 0.98‡‡ | 0.94‡‡ |
| Divorced | 9.4 | 8.6 | 1.09 | 1.47 | 2.05 | | | | | | |
| Widowed | 0.5 | 0.7 | 0.78 | 1.97†† | 2.01†† | **Currently employed** | | | | | |
| Never-married | 64.4 | 37.5 | 1.72 | 1.34 | 1.35 | Yes | 66.2 | 65.6 | 1.01 | 1.02‡‡ | 1.09‡‡ |
| | | | | | | No | 33.8 | 34.4 | 0.98 | 0.96‡‡ | 0.81‡‡ |
| **Cohabiting** | | | | | | **Family income** | | | | | |
| Yes | 20.2 | 5.8 | 3.47 | 3.06 | 4.65 | <$15,000 | 28.7 | 15.4 | 1.86 | 1.65 | 1.99†‡ |
| No/married | 79.8 | 94.2 | 0.85 | 0.86 | 0.86 | $15,000–$29,999 | 19.5 | 20.6 | 0.94 | 0.87 | 1.10†‡ |
| | | | | | | $30,000–$59,999 | 38.0 | 35.9 | 1.06 | 1.13 | 0.62†‡ |
| **No. of live births** | | | | | | ≥$60,000 | 13.8 | 28.1 | 0.49 | 0.54 | u |
| 0 | 45.4 | 41.2 | 1.10 | 0.78‡‡ | 0.92‡‡ | | | | | | |
| 1 | 24.7 | 18.2 | 1.36 | 1.30‡‡ | 1.21‡‡ | **Has Medicaid coverage** | | | | | |
| 2 | 17.8 | 23.8 | 0.75 | 1.25‡‡ | 1.03‡‡ | Yes | 26.5 | 12.9 | 2.04 | 1.74 | 2.44 |
| 3 | 7.7 | 11.1 | 0.69 | 1.17‡‡ | 1.14‡‡ | No | 73.5 | 87.1 | 0.84 | 0.87 | 0.85 |
| ≥4 | 4.4 | 5.8 | 0.76 | 1.48‡‡ | 1.73‡‡ | | | | | | |
| | | | | | | **Intends more children** | | | | | |
| **Religion§§** | | | | | | Yes | 66.0 | 47.8 | 1.38 | 1.07 | 1.09 |
| Protestant | 37.4 | 53.9 | 0.69 | 0.73 | 0.74 | No | 34.0 | 52.2 | 0.65 | 1.17 | 1.09 |
| Catholic | 31.3 | 30.9 | 1.01 | 0.97 | 0.95 | | | | | | |
| Jewish | 1.3 | 1.2 | 1.08 | 1.03 | 0.69 | **Region of residence** | | | | | |
| Other | 6.3 | 8.1 | 0.78 | 0.77 | 2.04 | Metropolitan | 88.5 | 79.6 | 1.11 | 1.12 | 1.11 |
| None | 23.7 | 5.9 | 4.02 | 3.87 | 3.68 | Nonmetropolitan | 11.5 | 20.4 | 0.56 | 0.55 | 0.62 |
| Total | 100.0 | 100.0 | 1.00 | 1.00 | 1.00 | Total | 100.0 | 100.0 | 1.00 | 1.00 | 1.00 |

†Data for 1994 except Medicaid status (1993), religion (1993–1995) and childbearing intention (1990 intention by age, applied to 1994 population). ‡Not age-standardized. §Not exactly comparable to 1994 because all Hispanics were classified as white or black. ††Standardized on women 25–44. ‡‡Standardized on women 20–44. §§Based on women 18–44. ††Income breaks for 1987 were <$11,000, $11,000–$29,999 and $30,000 or more. *Notes:* In this and subsequent tables, na=not applicable; u=unavailable. *Sources:* **POPULATION DATA: Age, race and ethnicity**—K.E. Deardorff, F.W. Hollmann and P. Montgomery, "U.S. Population Estimates, by Age, Sex, Race, and Hispanic Origin: 1990 to 1994," PPL-21, Population Projections Branch, U.S. Bureau of the Census, Washington, D.C., 1995. **Marital and cohabitation status**—U.S. Bureau of the Census, "Marital Status and Living Arrangements: March 1994," *Current Population Reports*, Series P-20, No. 484, 1996, Tables 1 and 8. **Live births**—U.S. Bureau of the Census, "Fertility of American Women: June 1994," *Current Population Reports*, Series P-20, No. 482,1995, Table 1. **Religion—**special tabulations of data from five Gallup polls, Roper Center for Public Opinion Research, Storrs, Conn., 1995. **Education, school enrollment, employment status and income**—U.S. Bureau of the Census, Current Population Survey, unpublished tables, 1995. **Medicaid coverage**—special tabulation of the March 1994 Current Population Survey. **Childbearing intentions**—special tabulation of the 1988 National Survey of Family Growth. **Metropolitan status**—U.S. Bureau of the Census, *1990 Census of Population*, Washington, D.C., 1992, Table 15, updated to 1994 using Population Division, U.S. Bureau of the Census, "Resident Population and Change for Metropolitan Areas in the United States by Population Rank: July 1, 1994," PPL-27, Washington, D.C., 1995. **1987 DATA:** See reference 2.

the abortion rate for each subgroup to the overall abortion rate. It is calculated by dividing the proportion of abortion patients in a subgroup by the proportion of U.S. women 15–44 in that subgroup.* An index value of 1.0 would indicate that a subgroup's abortion rate was the same as the rate for all women 15–44; values under 1.0 indicate rates below the rate for all women, while values exceeding 1.0 represent above-average rates. The index may be thought of as the "relative abortion rate," since it is the abortion rate of a subgroup relative to that of all women.

Since age is strongly associated with the abortion rate, differences between subgroups may result partly from differences in the ages of women in the subgroups. Therefore, to estimate what the index would be if the age distribution of each subgroup were the same as the age distribution of all women 15–44, we also calculated age-standardized indices for 1994–1995 and for 1987. The age-standardized index for 1987 was derived from the 1987 AGI survey.[6]

*For a mathematical proof that the ratio of these proportions is the same as the ratio of the subgroup's abortion rate to the overall abortion rate, see reference 2, p. 162.

## Women's Characteristics

Table 1 shows the percentage distribution of women who had abortions and of all women aged 15–44, according to the characteristics about which the survey solicited information. As the table indicates, women aged 20–24 obtain 33% of abortions, and teenagers obtain 22%. Women aged 15–17, with an index of 1.0, are as likely as all women aged 15–44 to have abortions, and those aged 18–19 and 20–24 are about twice as likely to do so (indices of 2.0 and 2.2, respectively). Abortion rates decline sharply in the older age-groups; the likelihood of abortion among women

aged 30 and older is no more than 77% of that among all women.

Teenagers' relative abortion rate has declined since 1987, when the index was 1.2 for 15–17-year-olds and 2.2 for 18–19-year olds. The relative abortion rate increased among women in their 20s, and the highest rate now occurs among women aged 20–24, rather than among 18–19-year-olds.

Although white women obtain 61% of abortions, their abortion rate, reflected by an index of 0.8, is well below that of women of other races. The index for black women is 2.2, or nearly triple that of white women, and the differential has increased since 1987. The index for women of races other than black or white is 1.6, but this may be inflated by the inclusion of some Hispanic women in this group (as explained in the methodology section). In the 1987 survey, which classified all Hispanic women as white or black, the age-standardized abortion rate for women of "other" races was only slightly above that of all women (1.1); the 1994–1995 index would be about the same as the 1987 rate if Hispanics were excluded from this group.

Hispanic women have a much higher abortion rate than non-Hispanics, but their rate is not as high as that of black women. The index for Hispanics is reduced somewhat when standardized for age (from 1.9 to 1.8), but is still roughly twice that of non-Hispanic women (0.9). The age-standardized index for Hispanics has increased substantially from its 1987 level of 1.4.

As they have in the past, never-married women obtain the bulk of abortions (64%); married women account for only 18% of procedures. The age-standardized abortion rate for married women is slightly more than half the rate for all women. The rate is highest among separated women—almost three times the overall rate. Since 1987, the relative rate has decreased among divorced women.

Women living with a partner to whom they are not married account for 20% of the abortion sample, but only about 6% of women in the population; their probability of having an abortion is 4.1 times that of women who are not cohabitating, or 3.6 times after adjustment for age. The differential appears to have decreased since 1987, when the age-standardized indices suggested that cohabiting women were 5.1 as likely as others to have an abortion. However, the decline may be partly due to random error in the measurement of cohabitation in the general population.

Some 55% of women having abortions in 1994–1995 have had at least one live birth. When age is taken into account, women who have had a child are substantially more likely than others to have an abortion (index values of 1.2–1.5 vs. 0.8). As in 1987, the highest age-standardized index is found among women who have had four or more births. In all, 72% of abortion patients who have given birth are unmarried, and 48% of unmarried abortion patients have borne children (not shown).

For 55% of respondents, this abortion was their first; 7% had had three or more abortions (not shown). In 1987, 57% had not had an abortion before, and 5% had had at least three. The principal reason for the continuing long-term increase in the proportion of abortion patients who have had prior abortions is that with each year since the procedure was legalized, a larger proportion of women in the population have had a first abortion.[7] The proportion of abortion patients who have had a previous abortion reaches 60% among women 30 and older, who have had more years of exposure to the risk of a first abortion than have younger women.

Protestants account for 37% of abortion patients, but for 54% of the general population of women 18–44, as measured in five 1993–1995 Gallup polls combined;[8] the resulting age-standardized index is 0.7. The age-standardized abortion rates for Jewish and Catholic women are close to the rate for all women. Women who claim no religious identification appear to have abortions at about four times the rate of women who name a religion.* None of these rates have changed noticeably since 1987 except the rate for Jewish women, which is unstable because the sample of Jewish women in the Gallup polls and the proportion of the population who are Jewish are small. Among women of "other" religions, the index is 0.8 for 1994–1995, down from 2.0 for 1987. The apparent change may be attributable to differences in the data used for the national comparison: The proportion of women who named a religion classified as "other" was only 2% in the 1982 NSFG, which was used for the 1987 comparisons, but was 8% in the 1993–1995 Gallup polls.

To further explore the difference between the abortion rates of Protestants and Catholics, we calculated the indices after excluding nonwhites and Hispanics, who have high abortions rates. As expected, this exclusion reduced the abortion rate of both Protestants and Catholics, but the difference between the religious groups changed little; the age-standardized rate for Catholic women is 29% higher than that for Protestants (0.6 vs. 0.5). The same pattern was found in 1987.

The questionnaire asked whether the respondent considered herself a "born-again Christian or Evangelical Christian"; this question was taken from a Gallup poll so that comparative data would be available. The proportion responding affirmatively represented a slight increase from 1987 (18% vs. 16%). According to the Gallup polls, 46% of all women 18–44 consider themselves born-again or Evangelical Christians,† so the abortion rate among this group is much below the rate for other women (indices of 0.4 and 1.5, respectively).

The distribution of abortion patients by educational attainment is similar to that of women in the population, with the difference that women with some college but not a bachelor's degree are overrepresented among abortion patients, while college graduates are slightly underrepresented. The age-standardized index, which includes only women aged 20–44, also shows women with some college education to be slightly more likely than others to have an abortion. Among abortion patients aged 20 and older, 57% have attended college or have some postsecondary education.

Women's distribution by level of education as found in the survey differs markedly from the distributions reported by state health departments and published by the National Center for Health Statistics (NCHS). In 1988, the most recent year for which NCHS data are available, 54% of women having abortions in an 11-state area had a high school diploma but no further schooling;[9] in our survey, the proportion with this level of education was 30%. The NCHS reported about the same proportion of college graduates as our survey (35%), while the proportions in other categories were lower. If the NCHS reports are accurate, women who

*The Gallup interview asks, "What is your religious preference—Protestant, Roman Catholic, Jewish or an Orthodox religion such as the Greek or Russian Orthodox Church?" Our questionnaire asked, "Are you Protestant, Roman Catholic, Jewish or something else?" Answer categories included "Other (specify)" and "None." Some Gallup poll respondents may give the religion in which they were raised even if they are no longer affiliated, while women in an abortion facility may be more likely to say they have no religion. In either case, the abortion index for women with no affiliation would be overestimated, while the indices for those identified with a religion would be underestimated.

†The Gallup question combines "born-again" with "Evangelical," a term used by some mainstream Protestant denominations. In a 1993 experiment, Gallup found that the number of positive responses was reduced by 34% when "Evangelical" was omitted from the question. Thus, about 30% of women 18–44 consider themselves born-again Christians. (See: L. McAneny and L. Saad, "Strong Ties Between Religious Commitment and Abortion Views," *Gallup Poll Monthly*, Apr. 1993, pp. 35–43.)

completed their education with a high school diploma have a much higher abortion rate than women of any other educational level.

A higher proportion of abortion patients than of all women 15–44 are enrolled in school (30% vs. 25%). When age is adjusted for and women younger than 20 are omitted, enrolled women are 15% more likely to have an abortion than are women not enrolled in school. Among teenagers, the relationship is reversed (not shown): For those aged 15–17, the abortion index is 5.0 among women who have left school and 0.7 among enrolled women; for 18–19-year-olds, the index values are 2.4 and 1.9, respectively. The abortion index for women aged 20 and older who are in school fell from 1.5 to 1.1 between 1987 and 1994–1995.

Although in 1987 employed women had a higher abortion rate than those not working, this was no longer the case in 1994–1995. In the latest survey, 66% of abortion patients were employed, the same proportion as among women in the population.

Women from families with an annual income of less than $15,000 have a higher abortion rate than do women from families with an income of $15,000–$59,999 (indices of 1.9 and 0.9–1.1, respectively), while those with a family income of $60,000 or more have a lower rate (0.5). Age standardization reduces the income differentials somewhat, but the probability of having an abortion is still three times as high for the lowest income group as for the highest.

The high relative abortion rate of low-income women is reflected in the rate according to Medicaid coverage. Twenty-seven percent of patients say they are covered by Medicaid (although not necessarily for abortion, since only 13 states and the District of Columbia allowed Medicaid to pay for abortion services in 1995), compared with 13% of all U.S. women of reproductive age. The age-standardized indices reveal that women with Medicaid coverage are twice as likely as others to have abortions (1.7 vs. 0.9). The differential is lower than in 1987, when women with Medicaid coverage were nearly three times as likely as others to have abortions.

Some of the differential by Medicaid coverage may be spurious, since most of the states that fund abortions under Medicaid extend eligibility to some low-income pregnant women who would not otherwise qualify, while in the population statistics, such women are not counted as being covered by Medicaid. It is unclear how many women who are not already Medicaid recipients are able to obtain Medicaid coverage for an abortion, but the number may be low.

Women covered by Medicaid have a number of characteristics that may contribute to their relatively high abortion index: They are disproportionately nonwhite, unmarried and poor, all characteristics associated with high abortion rates. And many Medicaid-eligible women are covered by that program because of a prior unplanned pregnancy they carried to term, evidence of difficulty in preventing pregnancy.*

A prior study found that Medicaid funding of abortion made abortion services accessible to women who would otherwise have carried unintended pregnancies to term.[10] We find that in states where Medicaid pays for abortions, women covered by Medicaid have an abortion rate 3.9 times that of women who are not covered, while in states that do not permit Medicaid funding for abortions, Medicaid recipients are 1.6 times as likely as nonrecipients to have abortions. Although the difference may result partly from the ability of some women seeking abortions to qualify for Medicaid because they are pregnant, the magnitude of the difference indicates that Medicaid coverage of abortion has an important effect on the ability of poor women to end unwanted pregnancies.

Sixty-six percent of abortion patients intend to have children (including 1% who are unsure). This proportion is lower than that in 1987 (70%), probably because of the older age distribution of the population and of women having abortions. It is higher than the proportion of all women aged 15–44 who intend to have more children (48%), however, reflecting the relatively young age of abortion patients. The age-standardized indices suggest that women who intend to have no more children are 9% more likely to have abortions than are women who intend more children.

As expected, a large majority (89%) of women having abortions live in counties classified by the federal government as metropolitan, and metropolitan women are twice as likely as nonmetropolitan women to have abortions (indices of 1.1 and 0.6, respectively). The comparatively low abortion index of nonmetropolitan women may reflect their difficulty in gaining access to abortion services, which are unavailable in the counties where 85% of nonmetropolitan women reside.[11] The limited availability of abortion facilities is indicated by the finding that 43% of the patients surveyed traveled outside their home county for abortion services (not shown). In 1987, by contrast, 39% of abortions took place outside the woman's county of residence.

## Contraceptive Use

The patterns of contraceptive use among abortion patients may or may not mirror the use patterns of all women at risk of unintended pregnancy. Each contraceptive method entails a different probability of becoming pregnant, and women's method choice often differs by their socioeconomic and demographic characteristics. Consequently, users of each method may differ in their likelihood of carrying an unexpected pregnancy to term or of having an abortion. For example, women who use only periodic abstinence may, for religious or other reasons, be more likely than users of other methods to carry an unexpected pregnancy to term.

Patterns of contraceptive use among abortion patients therefore result from the combined effect of three factors: the patterns of use among all women, use-failure rates and the likelihood that a woman with an unplanned pregnancy will have an abortion. Changes in the patterns of prior contraceptive use of abortion patients over time can result from changes in any or all of these factors.

### *Use Status at Conception*

Respondents were asked what contraceptive, if any, they had last used before they became pregnant, when they had stopped using that method and how long they had used it. They were considered to have had a contraceptive failure if they were using the method during the month of their last menstrual period. They also were counted as having had a contraceptive failure if they said they had stopped using the method during the month of their last menstrual period, but in response to another question they said they had not stopped using all methods before becoming pregnant. This definition of contraceptive failure, conventionally referred to as "use-failure," means the woman considered herself a method user during the month she became pregnant, although she may not have used a method consistently or correctly.[12]

Overall, 58% of women having abortions

*A study using data from the National Maternal and Infant Health Survey found that 64% of births to women under the poverty level were unplanned, compared with 52% of those to women at 100–149% of poverty and 34% among women with higher incomes. (See: K. Kost and J. D. Forrest, "Intention Status of U.S. Births in 1988: Differences by Mothers' Socioeconomic and Demographic Characteristics," *Family Planning Perspectives*, **27:**11–17, 1995.)

have experienced a contraceptive failure; 31% have used a method in the past but were not using one during the month in which they conceived, and 11% have never used any method (Table 2). Even among women younger than 18, 55% were using a method, almost the same proportion as among women 20 and older (57–59%).

According to the 1988 NSFG, 90% of women at risk of unintended pregnancy are using a contraceptive method and 10% are not.[13] The abortion indices for current users and nonusers are therefore 0.6 and 4.3, respectively, indicating that women using any method are only about 15% as likely to have an abortion as are women using no method. In other words, even though contraceptive use is often imperfect, it reduces the probability of having an abortion by about 85%.

Poverty status is strongly associated with contraceptive use; 64% of the women whose family income is at least twice the federal poverty level were using a method, compared with 49% of those with an income under the poverty level. Of the racial and ethnic groups, white non-Hispanic women are the most likely to have been using a method (67%), while Hispanic women are the least likely (45%).

The proportion of abortions resulting from contraceptive failure (58%) represents an increase of 12% from 51% in 1987. The increase occurred entirely among women younger than 30 and was greatest among teenagers. While contraceptive use differed sharply by age in 1987, these differences had almost disappeared by 1994–1995. The increase in use occurred equally among all poverty-status groups and among white and black women. Little change occurred, however, among Hispanics and women of races other than white and black.

Both educational attainment and employment status were positively associated with contraceptive use at the time of conception among abortion patients in 1987 and in 1994–1995 (not shown). Of the religious groups, Protestants are the most likely to have been using a method (60%), while Catholics are the least likely (56%). Among women who became pregnant while using a method, 56% had been using the method for 12 months or less.

### *Prior Use*

Of the 42% of women who were not using a method when they became pregnant, 74% (or 31% of the entire sample) had used one at some time. The majority of prior contraceptive users had most recently relied on either the pill (55%) or the condom (29%). This represents an important shift since 1987, when 74% of prior users had taken the pill and 22% had used the condom.

The women surveyed in 1994–1995 had become pregnant within a fairly short time after discontinuing method use: 32% within the first month and 59% within three months. Among those surveyed in 1987, only 18% had become pregnant within the first month. Additionally, prior users of the pill or the condom seem to have become pregnant more quickly after stopping use than had their counterparts in 1987. In 1994–1995, 53% of prior pill users and 76% of prior condom users became pregnant within three months of stopping use; by comparison, the proportions in 1987 were 44% and 69%, respectively (not shown).

### *Never-Use*

As might be expected, the proportion of abortion patients who have never used any contraceptive method is highest among women younger than 18 (19%); only 10–11% of those aged 20 and older have never used a method. And abortion patients in the two lowest income groups are far more likely to have never used a contraceptive method than are those in higher income groups (13–17% vs. 8–11%).

The proportion who are never-users declines from 21% of Hispanics and 17% of those of races other than white and black to 12% among blacks and 6% among whites. The relatively high proportion of never-users among Hispanic women and those of other races may reflect a concentration of immigrants from cultures where contraceptive prevalence is lower than in the United States. For example, 26% of women who completed the questionnaire in Spanish (presumably the most recent immigrants) had never used a method, compared with 18% of Hispanics who preferred the English version of the questionnaire. Only 8% of Protestants have never used a method, compared with 13% of Catholics (not shown).

Between 1987 and 1994–1995, the proportion of never-users declined markedly among women younger than 18, but increased among women aged 20 and older. Women who completed the questionnaire in Spanish were much older, on average, than other women (only 8% were teenagers, compared with 23% of women who completed the questionnaire in English); these women may in part account for the increase in the proportion of older women who have never used a method. The proportion of women who have never used a contraceptive also increased among the lowest income group (from 13% to 17%) and among those at 100–149% of the poverty level (from 8% to 13%).

**Table 2. Percentage distribution of abortion patients, by contraceptive use status during the month in which they became pregnant, according to year and selected characteristics**

| Survey year and characteristic | Current user | Prior user | Never-user | Total |
|---|---|---|---|---|
| **1994–1995** | **57.5** | **31.2** | **11.2** | **100.0** |
| **Age-group** | | | | |
| <18 | 55.4 | 25.3 | 19.3 | 100.0 |
| 18–19 | 58.6 | 29.1 | 12.4 | 100.0 |
| 20–29 | 57.1 | 33.3 | 9.7 | 100.0 |
| ≥30 | 59.0 | 30.1 | 10.8 | 100.0 |
| **Poverty status†** | | | | |
| 0–99% | 49.0 | 34.3 | 16.7 | 100.0 |
| 100–149% | 53.2 | 33.5 | 13.3 | 100.0 |
| 150–199% | 58.2 | 31.1 | 10.7 | 100.0 |
| ≥200% | 63.5 | 28.9 | 7.6 | 100.0 |
| **Race/ethnicity** | | | | |
| White‡ | 67.0 | 27.2 | 5.8 | 100.0 |
| Black‡ | 52.0 | 36.1 | 11.9 | 100.0 |
| Hispanic | 44.7 | 34.3 | 21.0 | 100.0 |
| Other | 54.2 | 28.6 | 17.1 | 100.0 |
| **1987** | **51.3** | **39.7** | **9.0** | **100.0** |
| **Age-group** | | | | |
| <18 | 39.4 | 33.9 | 26.7 | 100.0 |
| 18–19 | 48.8 | 39.8 | 11.4 | 100.0 |
| 20–29 | 51.9 | 41.9 | 6.2 | 100.0 |
| ≥30 | 58.8 | 36.6 | 4.6 | 100.0 |
| **Poverty status†** | | | | |
| 0–99% | 43.0 | 44.2 | 12.7 | 100.0 |
| 100–149% | 48.9 | 43.0 | 8.0 | 100.0 |
| 150–199% | 52.5 | 40.2 | 7.3 | 100.0 |
| ≥200% | 57.1 | 35.6 | 7.4 | 100.0 |
| **Race/ethnicity** | | | | |
| White | 57.6 | 36.1 | 6.2 | 100.0 |
| Black | 41.8 | 47.7 | 10.5 | 100.0 |
| Hispanic | 42.1 | 41.2 | 16.7 | 100.0 |
| Other | 53.7 | 31.9 | 14.4 | 100.0 |

†Poverty status is the woman's annual family income expressed as a proportion of the federally designated poverty level for the year in which she was interviewed. The designated level was $12,320 for a family of four in 1994 and $12,590 for a family of four in 1995. ‡Excluding Hispanics. *Source:* **1987 data—**See reference 2.

### *Multivariate Analyses*

Many of the observed subgroup differences in contraceptive use may reflect confounding of the abortion patients' demographic and socioeconomic characteristics. For example, racial and ethnic differences in the proportion of abortion patients who were using a method when they became pregnant may reflect different poverty-status distributions among racial and ethnic groups. We therefore constructed logistic regression models to identify the variables most strongly associated with having been a method user at conception and with never having used any method.

Table 3 (page 146) shows that with other variables controlled, women aged 20 and older are considerably less likely than those younger than 18 to have used a contraceptive at the time of conception (odds

**Table 3. Odds ratios describing the association of abortion patients' characteristics with contraceptive use during the month of conception and with never-use of contraceptives**

| Characteristic | Used | Never used |
|---|---|---|
| **Age-group** | | |
| <18 | 1.000 | 1.000 |
| 18–19 | 0.797 | 0.776 |
| 20–29 | 0.618* | 0.747* |
| ≥30 | 0.605* | 0.968 |
| **Race/ethnicity** | | |
| White or other | 1.000 | 1.000 |
| Black | 0.606* | 1.560* |
| Hispanic | 0.559* | 2.230* |
| **Poverty status** | | |
| <100% | 1.000 | 1.000 |
| 100–149% | 1.140 | 0.829 |
| 150–199% | 1.227* | 0.647* |
| ≥200% | 1.328* | 0.571* |
| **Marital status** | | |
| Never-married | 1.000 | 1.000 |
| Married | 1.093 | 0.811 |
| Formerly married | 0.960 | 0.892 |
| **Education** | | |
| <H.S. | 1.000 | 1.000 |
| H.S. graduate | 1.323* | 0.748* |
| Some college | 1.890* | 0.416* |
| ≥college | 2.179* | 0.415* |
| **Religion** | | |
| Protestant | 1.000 | 1.000 |
| Catholic | 0.957 | 1.397* |
| Jewish | 0.787 | 0.700 |
| Other/none | 0.983 | 1.422* |
| **Employed** | | |
| Yes | 1.000 | 1.000 |
| No | 0.864* | 1.371* |
| **Intends more children** | | |
| Yes | 1.000 | 1.000 |
| No | 1.181* | 0.906 |

*p<.03. A significance level of .03 was chosen as a more conservative test than .05 to allow for possible increased variance due to clustering, weighting and imputation of data.

ratios of 0.6). The 1988 NSFG found that among women at risk of unintended pregnancy, teenagers were slightly less likely than older women to be using a contraceptive.[14] Since teenagers tend to use less effective methods than older women,[15] teenagers who were using a method are overrepresented among abortion patients.

Compared with white women and those of other races, blacks and Hispanics are less likely to have used a method (odds ratio of 0.6 for each). Higher economic status, more education, being employed and not wanting more children are positively associated with contraceptive use during the month the conception occurred.

Women aged 20–29 are significantly less likely than the youngest women to have never used a method (odds ratio of 0.7). Blacks and Hispanics are more likely than other women to have never used a method (1.6 and 2.2, respectively); of the variables included, Hispanic origin is most strongly associated with lack of contraceptive experience. The odds that a woman has never used contraceptives decrease as income and educational attainment increase. Catholics and women without a religious identification (or followers of "other" religions) are more likely than Protestants never to have used contraceptives (odds ratio of 1.4 in each case). Women who are not employed in a paid job are more likely never to have used contraceptives than those who are employed (1.4).

### *Method Used at Conception*

Table 4 shows that among abortion patients who were using a method during the month they became pregnant, the condom was the method most commonly used. (The table lists the methods in decreasing order of effectiveness. Women who reported use of more than one method are assigned only to the most effective one; for example, a woman who reported use of both the pill and the condom would be classified as having used the pill.) Of all abortion patients surveyed in 1994–1995, 32% had been using the condom, 12% the pill, 6% withdrawal, 2% periodic abstinence and 1% or fewer each of the other methods. (Written-in responses indicated that some of the pregnancies categorized as injectable failures occurred among women who had intended to continue using the method but were unable to obtain the injection by the required date.)

The distribution of women by method use in 1994–1995 is sharply different from that in 1987, when only 15% had been using the condom. While reliance on the condom increased among abortion patients, use of almost all other methods decreased; the diaphragm and sponge saw particularly sharp declines (from 5% to 1%).

To check whether the increase in condom use reflects greater use of condoms at the same time as another method (such as a spermicide), we tabulated the number of respondents who indicated that they had used multiple methods. Among condom users, 46% also checked another method in 1987, compared with only 31% in 1994–1995. Thus, the results suggest a switch to condom use rather than the use of condoms in addition to other methods. Of course, this may not accurately reflect trends in multiple use in the population generally, since women who used the condom together with another method to avoid infection with the human immunodeficiency virus or other sexually transmitted diseases would be less likely to experience an unintended pregnancy and abortion.

Among the women who experienced contraceptive failure, the methods used differ little among the racial or ethnic groups (Table 5). The largest differences are that black women are more likely than nonblack and Hispanic women to have used the condom and less likely to have used withdrawal. Age differences are marked: Whereas 76% of women younger than 18 had used condoms, only 49% of women 30 or older had used this method. Pill use peaked (at 25%) among women aged 20–29, while use of "other" methods (mainly the diaphragm, sponge, spermicides and periodic abstinence) increased sharply with age, from 1% of women younger than 18 to 24% of those 30 and older. Possibly because age is correlated with income, the proportion who used other methods also increased as family income as a proportion of the poverty level rose. Otherwise, there is little association of method used with poverty status.

Between 1987 and 1994–1995, condom use among abortion patients who were using a method when they became pregnant increased dramatically among all women, regardless of race, ethnicity, age or poverty status; the increase was greatest among black and Hispanic women. In the same time period, pill use declined among abortion patients who had a contraceptive failure. This decline occurred primarily among blacks and Hispanics, but substantial decreases also took place among women of all ages except those 30 and older, and among those of all income levels except the highest.

The dramatic increase in condom use among teenage abortion patients was accompanied by a large decrease in the proportion using withdrawal. Among those younger than 18, 29% had been using withdrawal and 47% had been using the condom in 1987, while in 1994–1995, only

**Table 4. Percentage distribution of abortion patients by contraceptive method used at time of conception, according to year**

| Method | 1994–1995 | 1987 |
|---|---|---|
| Sterilization | 0.2 | 0.2 |
| Implant | 0.1 | na |
| IUD | 0.1 | 0.3 |
| Injectable | 0.5 | na |
| Pill | 11.7 | 13.3 |
| Condom | 32.4 | 14.8 |
| Female condom | 0.2 | na |
| Diaphragm | 1.1 | 5.2 |
| Sponge | 1.0 | 4.7 |
| Foam | 0.9 | 2.0 |
| Suppository | 0.9 | 1.3 |
| Periodic abstinence | 2.3 | 3.8 |
| Withdrawal | 5.9 | 5.7 |
| Other | 0.2 | 0.1 |
| None | 42.5 | 48.7 |
| Total | 100.0 | 100.0 |

*Source:* **1987 data**—unpublished tabulations from the 1987 abortion patient survey (see reference 2).

**Table 5. Percentage distribution of abortion patients who were using a contraceptive at time of conception, by method and year, according to selected characteristics**

| Year and method | Total | Race/ethnicity | | | Age-group | | | | Poverty status | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White/ other† | Black† | Hispanic | <18 | 18–19 | 20–29 | ≥30 | <100% | 100–149% | 150–199% | ≥200% |
| **1994–1995** | | | | | | | | | | | | |
| Long-acting‡ | 1.5 | 1.2 | 1.5 | 2.2 | 0.3 | 1.3 | 1.5 | 2.0 | 1.9 | 1.5 | 2.0 | 1.2 |
| Pill | 20.3 | 19.0 | 21.6 | 23.0 | 11.0 | 16.2 | 24.8 | 16.1 | 20.4 | 22.3 | 20.5 | 19.8 |
| Condom | 56.6 | 55.5 | 61.2 | 53.2 | 76.0 | 64.6 | 54.9 | 48.9 | 59.4 | 53.3 | 58.1 | 55.7 |
| Withdrawal | 10.3 | 12.1 | 6.1 | 10.5 | 11.3 | 14.5 | 9.7 | 9.2 | 9.6 | 12.2 | 7.8 | 10.8 |
| Other | 11.3 | 12.1 | 9.6 | 11.0 | 1.4 | 3.4 | 9.0 | 23.7 | 8.7 | 10.7 | 11.6 | 12.5 |
| **1987** | | | | | | | | | | | | |
| Long-acting‡ | 1.0 | 0.8 | 0.8 | 2.1 | 0.0 | 0.0 | 0.8 | 2.5 | 1.0 | 0.8 | 1.3 | 0.9 |
| Pill | 26.0 | 20.9 | 39.5 | 30.9 | 18.3 | 29.1 | 31.2 | 14.0 | 33.3 | 29.9 | 27.3 | 21.1 |
| Condom | 28.7 | 31.4 | 23.1 | 22.7 | 47.4 | 34.3 | 25.2 | 26.8 | 27.7 | 27.9 | 26.5 | 30.0 |
| Withdrawal | 11.1 | 12.0 | 7.6 | 12.4 | 29.4 | 20.4 | 8.8 | 4.1 | 11.3 | 10.2 | 9.9 | 11.6 |
| Other | 33.2 | 34.9 | 29.0 | 31.9 | 5.0 | 16.2 | 34.1 | 52.7 | 26.8 | 31.2 | 35.0 | 36.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

†Excluding Hispanics. ‡Sterilization, implant, injectable and IUD. *Source:* **1987 data**—unpublished tabulations from the 1987 abortion patient survey (see reference 2).

11% were using withdrawal and 76% relied on condoms. Among women 20 and older, the increase in condom use coincided with a drop of 25 percentage points or more in the use of "other" methods.

## Discussion

The risk of unintended pregnancy leading to abortion varies widely among demographic subgroups. The factors associated with high risk are relatively young age (18–24), being separated or divorced, cohabiting while unmarried, being Hispanic or of a minority race, having a low income, being covered by Medicaid and having had four or more births. Factors that are associated with low abortion rates include being a born-again or Evangelical Christian, being aged 35 or older, having high income, living in a nonmetropolitan county, being married and identifying with a religion other than Catholicism.

With the exception of cohabiting, the characteristics associated with high abortion rates suggest a lack of financial and social resources and, perhaps, a lack of control over one's life. Cohabiting women have sexual intercourse more frequently than do married women,[16] and they may be ambivalent about having children.

Identifying with a religion, on the other hand, suggests integration into a community that provides support and limits on behavior, as well as belief in a doctrine that probably discourages abortion and sexual activity outside marriage. Being a born-again or Evangelical Christian is associated with a relatively low probability of having an abortion, but even so, 18% of abortion patients are born-again or Evangelical Christians. The causal relationship is not clear, however, since the characteristics that predispose a woman against sexual risk-taking may also predispose her to be born-again or to be attracted to Evangelical religious groups. The surprise, since Catholic dogma is more visibly opposed to abortion than is that of most other religions, is that identification as a Catholic does not result in a low relative abortion rate. One can speculate that the reason might be that Catholics use less effective methods of contraception, are more opposed to childbearing outside marriage or are concentrated in cities and geographic areas with high abortion rates.

Women in nonmetropolitan counties often live in small communities with more effective norms against sexual risk-taking and abortion. This and the relative inaccessibility of abortion services outside metropolitan areas may account for their low abortion rate.

The abortion indices for a number of subgroups have changed since 1987. As noted earlier, some of the difference could be associated with shifts in contraceptive behavior. Another factor may be increased acceptance of childbearing outside marriage. Among teenagers, for example, the decline in abortions was accompanied until 1991 by an increase in nonmarital childbearing. Similarly, the number of abortions obtained by women with no children has decreased, while the relative number among women with two children has gone up. These changes are consistent with the hypothesis that unmarried women are increasingly willing to carry pregnancies to term unless they already have one or two children.

Hispanic women's rising relative abortion rate suggests a need for further research to both confirm the finding and explore the reasons. One can hypothesize that as young Hispanic women become acculturated, they initiate sexual activity at an earlier age and experience more unintended pregnancies. Also, new immigrants may include women with children who wish to terminate childbearing or space their births and turn to abortion because they are unaccustomed to using modern contraceptive methods or have limited access to family planning services.

The observed increase in the proportion of abortion patients who were using a contraceptive method during the month they became pregnant and the shift in methods used could have been affected by changes in the relative effectiveness with which the various methods are used or in the proportions of unintended pregnancies terminated by abortion; however, shifts of this magnitude probably reflect changes in contraceptive use patterns in the population. Data from the 1990 NSFG telephone reinterview survey showed similar patterns of increased condom use among 15–19-year-old, black, never-married, less-educated and low-income women, and decreased pill use among 15–17-year-old, black, never-married and low-income women.[17]

Thus, couples appear to have heard the message that they should use condoms to prevent infection with the human immunodeficiency virus and other sexually transmitted diseases. Such a change could increase the unintended pregnancy rate if women switch from the pill or other effective methods, but judging from women having abortions, this has not happened. Among abortion patients, most of the additional condom users replaced women using other barrier methods or no method at all, while the drop in pill users was small.

*(continued on page 158)*

## Abortion Patients…

*(continued from page 147)*

These findings could indicate that the decrease in the national abortion rate evident in 1992 may have resulted, at least in part, from fewer unintended pregnancies due to greater contraceptive use and net use of more effective methods.[18] In particular, the reduced proportion of nonusers and withdrawal users among teenagers could account for some of the fall in the abortion rate among this age-group if the experience of abortion patients reflects that of the population generally. Similarly, the shift from pill to condom use among black women could help account for the relative increase in the abortion rate of this group.

To further lower the abortion rate, the focus should continue to be on reducing the number of couples who use no contraceptive method at all. Most of those who were not using a method had used one in the past and conceived within a very short period after discontinuing use. Thus, it is very important for couples to avoid lapses in method use and to immediately adopt another method when they discontinue one.

Next in importance would be to improve the effectiveness with which condoms are used, since one-third of abortion patients experienced the failure of this method. Because most of these failures probably resulted from inconsistent use, the need for protection at every act of intercourse should be stressed.

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