

Teenage Sexual Behavior and Contraceptive Use: An Update

Joyce Abma* and Freya L. Sonenstein**

April 28, 1998

*National Center for Health Statistics, Centers for Disease Control

**The Urban Institute

Acknowledgments: Funding for some of the analyses presented in this paper comes from NICHD Grant Number RO1 HD30861. We would like to thank John Marcotte for his statistical consultation and Sean Williams for the extensive help he has provided conducting the data analyses. The opinions expressed are the authors' views and do not reflect the position of the Urban Institute, the National Center for Health Statistics, or the funders of the surveys,

Teenage Sexual Behavior and Contraceptive Use: An Update

Concern about the reproductive behavior of teenagers in the United States has permeated public policy discussion for the last two decades. Commencing with the recognition of the serious personal and social costs of teen childbearing in the 1970s and more recently, the severe health consequences of STDs especially HIV, policy makers and program administrators have wrestled with how to reduce sexual risk behaviors of teens in the U.S. Crucial to informed public policy and program development are good data.

Since 1971 periodic household surveys have interviewed young women ages 15-19 to obtain information about their sexual activity, contraceptive use, pregnancies and births. This tracking began with the National Surveys of Young Women in 1971, 1976 and 1979 conducted by Kantner and Zelnik at Johns Hopkins University. Later the National Survey of Family Growth (NSFG) conducted by the National Center for Health Statistics took over collecting this information for teenagers, and older women too, in surveys conducted in 1982, 1988 and 1995. Information about male behavior is not as complete. With the exception of a male component added to the 1979 survey by Kantner and Zelnik, data for males were not collected in the 1970s or early 1980s. But in 1988 the National Survey of Adolescent Males (NSAM) was begun as a separate study initiated by academic investigators to collect parallel information from teenage males. As a result, comparable data are now available for both male and female teenagers for 1988 and 1995. This paper is an initial effort to pull together the results of the 1988 and 1995 surveys of male and female teenagers, to describe the levels of reproductive risk and to explore trends over time. We are particularly interested in using the larger combined samples of males and females to study whether the levels of sexual risk taking among teenagers are significantly lower in 1995 and whether shifts in behavior are concentrated among particular subpopulations.

Before we turn to the results themselves, it is useful to examine how the two surveys are comparable. Both surveys use in-person interviews supplemented by self administered instruments to collect information from samples of female and male teenagers selected to be representative of the U.S. population ages 15-19. Black and Hispanic teens are oversampled so that racial and ethnic differences can be examined and trends over time within subgroups can be studied. In order to facilitate comparisons with the 1988 data from male teenagers, the analyses are limited to never-married males and females ages 15-19.

In designing the instruments for the surveys, efforts were made to use parallel items. However we note that there are sometimes differences between the male and female surveys in the ways the questions are posed or where they are placed in the instrument. We will describe these differences as we provide the results. The data presented in this paper come from interviewer administered questions. Since the measures involve self reports of sensitive behaviors, they may be subject to some intentional and unintentional reporting errors.

Comparisons of survey data from male and female samples naturally lead to comparisons of the consistency of the answers between the two groups. However we caution readers that the

males and females in our samples do not necessarily draw from the 15-19 year old population for their sexual partners. In 1995 for example, the average age of the most recent partner of an 19 year old male was 18.7, while an 19 year old female's most recent partner was 20.7.

The results presented in this paper are weighted to compensate for the probability of selection and nonresponse and are poststratified to align with Census data. The standard errors in the statistical tests of differences in proportions have been adjusted because of the complex sampling designs of the surveys.

Results

Sexual Experience Levels

For the first time since national surveys started tracking levels of sexual experience among teenagers, the data indicate no increase between 1988 and 1995 in the proportion of males or female teenagers who have ever had sexual intercourse. Levels of sexual experience appear to have plateaued or even turned downwards in the period, as shown in chart 1. In 1995 almost half (49 percent) of teenage females and just over half (55 percent) of teenage males report that they have had sex at least once. In 1988 the proportion of teenage females who were sexually experienced was roughly comparable. Among males the levels of sexual experience appear to have fallen marginally, by 5 percentage points from 1988. Since the shifts for both groups were in the same direction, we tested for the significance of the difference between 1988 and 1995 for the male and female samples combined. The results indicate that the modest decrease observed in the levels of sexual experience among U.S. teenagers is statistically significant.

Chart 2 puts the recent survey results into a longer term perspective. It indicates that since 1971 the proportion of females ages 15-19 who have ever had sexual intercourse steadily increased up to 1988. For males, fewer data points are available for a more restricted cohort but the trend is similar. The share of metropolitan males ages 17-19 who were sexually experienced rose between 1979 and 1988 and decreased between 1988 and 1995. Although these data show a decline, it is also important to note that the proportion of teens who are sexually experienced remains high compared to patterns among females in the early 1970s.

Early Initiation of Sex

The news is not all good, however. Chart 3 shows the proportion of teens reporting that they initiated sexual intercourse before they reached the age of 15. Among females the proportion reporting early initiation of sexual intercourse appears to have risen significantly and substantially from 11 percent to 19 percent. Among males the proportion of early initiators remains stable at 21 percent. The share initiating before age 15 has risen among Hispanic, white and black women. Hispanic males also report a marginally significant increase from 19 to 28 percent. Thus although the aggregate levels of sexual experience among teens appear to have

gone down, there is a substantial group of high risk teens--approximately 1 in 5--who are initiating sex before age 15 and this group has become larger since 1988. The share of younger members of the female sample who initiated sex before age 15 has increased significantly, signaling that the leveling off of sexual experience levels seen between 1988 and 1995 may be temporary. A lot of attention is paid to the young women initiating sex at early ages, we note that the share of males is comparably high, albeit not rising overall.

Currently Sexually Active

Many teenagers have sex sporadically. Thus they may be counted as being sexually experienced, but they may not currently be at risk because they have not had intercourse recently. To measure current risk we have calculated the proportion of teenagers who had sex in the last 3 months before the interview. Although 55 percent of males and 49 percent of females were categorized as sexually experienced in 1995, the proportion who were currently sexually active was substantially lower at 37.8 percent for males and 37.5 percent for females as shown in Chart 4. Among both male and female teenagers there has been a significant decreases between 1988 and 1995 in the share of teens who have had sex recently. However there are disparities by race/ethnicity. Among males the decrease in risk appears concentrated among white youth, among females decreases are registered among white and black young women but the shift among black teens is marginally significant. In stark contrast, Hispanic youth show a very troubling reversal of this trend. Male and female Hispanic youth report marginally significant increased levels of recent sexual activity .

Further evidence that the reduction of risk is concentrated in particular subpopulations is shown by the finding that suburban youth are more likely than central city or rural youth to have lower levels of current sexual activity in 1995 compared to 1988. This pattern is shown in Chart 5. Male and female teenagers living in the suburbs are significantly less likely to have had sex in the last 3 months in 1995 compared to 1988. In Chart 6 we look more closely at the trends for black, Hispanic and white youth by community of residence. Here we have pooled the males and female samples together to preserve adequate sample sizes. Among central city residents, black and white teens show no difference in levels of current sexual activity between 1988 and 1995. Hispanic youth show the same rise we noted earlier ($p < .05$). Among suburban youth white teens show significant decreases in the proportion who have had sex in the last 3 months. It is worth noting that white teens in the central cities and black teens living in the suburbs also appear to have marginally lower levels of current sexual activity in 1995 compared to 1988 ($p < .20$).

Contraceptive Use at Most Recent Intercourse

If teenagers are sexually active, the use of certain contraceptive methods may provide protection against unintended pregnancy and STD transmission. So we turn to examining trends in the use of contraceptive methods among teenagers who have had sex recently, that is, in the past 3 months.

Between 1988 and 1995 there has been little change in the proportion of currently sexually active teens reporting that they used no method of contraception at last intercourse (Not shown in Charts).¹ Only a small proportion of teens report using no methods at all. In 1995 the proportions were 16 percent for females and 18 percent for males. However, a notable trend can be seen among black females. In 1988 one third of black teenage females reported using no method of contraception at last intercourse, but by 1995 the proportion had dropped to 14 percent (Not shown in Charts).

Among those using contraceptive methods, there have been marked changes in the types of methods selected. Condom use at last intercourse has risen substantially and significantly among both male and female teenagers. Chart 7 illustrates this point. Among males who had intercourse recently, the proportion using condoms at last intercourse rose from 53 to 64 percent. Among like females the proportion rose from 27 percent to 36 percent. Broken down by race/ethnicity, the chart shows increases in condom use among all groups of males and for white and black females. Hispanic females show a worrisome trend in the opposite direction, towards significantly lower use of condoms.

Condom use at *first* intercourse has also risen. This indicator is an important measure of how well teens anticipate and plan for protection at the initiation of sexual activity, when they experience intercourse at their youngest age. Among women 15-44 years of age who had premarital first intercourse, 54 percent of those whose first intercourse occurred between 1990 and 1995 used the condom, while among those whose first intercourse was before 1980 only 18 percent did so (Not shown in charts).¹

There are substantial differences between the overall levels of condom use that the males and females report. A number of national surveys have found similar differences, with male teenage respondents reporting higher levels of condom use than females. This is primarily due to the fact that the most recent partners of the teenage girls in the sample tend to be 2 years older than they are, on average. Condom use has been found to decrease as teenage males grow older.² Another possible source of differences could involve socially desirable responding: that is, males may report in a way consistent with society's view of responsible behavior. However, higher reporting among males was first noted in a 1982, before the appearance of public concern about HIV and condom protection, suggesting that social desirability may not be the entire explanation

¹ Abma J, A. Chandra, W. Mosher, L. Peterson, and L. Piccinino, "Fertility, Family Planning, and Women's Health: New Data from the 1995 National Survey of Family Growth," Vital and Health Statistics, 1997, Series 23, No. 19.

² Sonenstein FL, Ku L., and Pleck JH, "Why Young Men Don't Use Condoms: Factors Related to the Consistency of Utilization." in *Why Some Men Don't Use Condoms: Male Attitudes about Condoms and Other Contraceptives*. DJ Besharov, FH Stewart, KN Gardiner and M Parker (Eds) Menlo Park, CA: The Henry J. Kaiser Foundation, 1997.

for higher reports among males.³ A final possible source of variation is question wording. The NSAM survey posed two questions about each partners use of contraception, while the NSFG posed a single question referencing both partners. The most important point regarding condom use remains that while the absolute levels may differ between males and females, the pattern of substantially increased use prevails for both sexes.

While condom use has risen among most teenagers, the use of oral contraceptives has dropped dramatically, as shown in Chart 8. Among currently sexually active females the use of oral contraceptives at last intercourse fell from 42 percent to 23 percent. Among males, who may be less accurate reporters of oral contraceptive use than females, the proportion reporting the use of pills decreased from 37 percent to 28 percent. Reductions in the use of oral contraception are evident across black, Hispanic and white teenagers of both sexes.

Some of the reduction in oral contractive use is counteracted by the adoption of new methods of contraception like Norplant and DepoProvera (not shown in charts). In 1995, seven percent of female teens overall used these methods. They were most widely used among black female teens: 16 percent reported using Norplant or DepoProvera at last intercourse. In terms of risk, therefore, the relatively widespread use of these effective methods among black females may partially compensate for their decrease in the use of oral contraceptives.

Other Changes

There are many different sources of influence on teens' sexual and contraceptive behavior, ranging from the individual to the societal level. One likely source of influence is sex education. Findings from a recent analysis of trends in male sexual activity levels from 1979 to 1995 corroborate this notion: reductions in sexual activity were significantly associated with increases in sex education among white males.⁴ Analyses have also shown that receiving formal instruction on contraception increases the likelihood a teen female will use contraception at first intercourse.⁵

A larger percentage of today's teens, both male and female, are receiving instruction during early adolescence in the areas of birth control methods, how to prevent AIDS, and

³ Mott, F. "Fertility-related Data in the 1982 National Longitudinal Survey of Work Experience of Youth: An Evaluation of Data Quality and Some Preliminary Analytical Results." Ohio State University, 1983.

⁴ Ku L, Sonenstein FL, Lindberg LD, Bradner CH, Boggess S, and Pleck JH. "Understanding Changes in Teenage Men's Sexual Activity: 1979 to 1995," Presented at the annual meeting of the Population Association of America, Chicago, IL, April 4, 1998..

⁵ Mauldon J, and K Luker. "The Effects of Contraceptive Education on Method Use at First Intercourse." Family Planning Perspectives, 1996, 28(1).

abstinence, or how to say "no" to sex. Most female teens receive formal instruction on birth control methods. As shown in Chart 9, 88 percent received such instruction in 1995 compared to 72 percent in 1988. This is also common among male youth: 79 percent received instruction on contraceptives in 1995, up slightly from the 1988 level. Almost all teens now receive instruction on how to prevent AIDS using safe sex practices: 92 percent of males and 94 percent of females. Equally common among females is receipt of instruction on how to say "no" to sex: 93 percent received such instruction in 1995. Among males such education is also common, although not as widespread as among the females: three quarters of males received abstinence education, up from 63 percent in 1988.

Summary of the Trends in Reproductive Behaviors

The share of teenagers who ever had sex plateaued or declined in the 1990s.

Recent sexually activity among teens dropped, primarily among white suburban teens.

This trend does not translate to fewer teens reporting early initiation of sex; indeed the proportion among females having sex before age 15 rose substantially

Condom use at last sex rose significantly, suggesting more protection from STD transmission.

Oral contraceptive use declined, suggesting greater vulnerability to unintended pregnancy if other hormonal methods or consistent condom use are not employed.

Most teenagers are receiving sex and AIDS education about delaying sexual onset and using contraception.

Overall sexual risk levels appear to have gone down among U.S. teens between 1988 and 1995. The decline in levels of sexual experience is particularly heartening because it is the first evidence that we have that reductions are possible among teens. Prior to these 1995 data, higher and higher levels of sexual activity had been reported in every survey since the early 1970s. The steady rise in condom use is also important, but this trend has been observed since 1982. However there is plenty of room for further improvement. Inner city teens of color are not showing reductions in levels of sexual activity, neither are rural teenagers. The trends among Hispanic youth are particularly troubling because of their increases in sexual activity for both males and females and drops in condom use, seen among the females. The evidence about increases in the proportion of female teens initiating sex before age 15 does not bode well for the future. It suggests that the current reductions in sexual activity may be temporary and that the levels of sexual experience among teenagers could rise in future.

Endnote

1. The converse of “no method” is “any method”, and these include methods that provide only minimal protection against pregnancy and no protection against STD transmission. Therefore there are teens among the group using “any method” who are at virtually the same risk as those using “no method”, although the former teens are distinct in that they displayed motivation to contracept.