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#### INTRODUCTION

Twenty-three percent of never-married women aged 15-19 and 71% aged 20-44 in the Albany New York Health Region (AHR) were estimated, as of 1974, to have had some coital experience. This estimate is based on data obtained through interviews of an area-probability sample of the 15-to-44-year-old female population living in the 18-county AHR. The survey area was divided into 2 segments--the Albany-Schenectady-Troy Standard Metropolitan Statistical Area (SMSA)-which includes 4 counties and slightly over 50% of the population in the AHR; the remaining 14 counties of the health region were classified as non-SMSA. This division is essentially an urbanrural split of the health region. The survey included 2,291 respondents, of which interviews were completed for 2,059 (90%), both married and unmarried. In the SMSA, 87.4% of women eligible for interview were interviewed, and in the non-SMSA 94.0%. Refusals accounted for only 4.3% of the incomplete interviews in the SMSA and 2.8% of the incomplete interviews in the non-SMSA. The survey was conducted by the Bureau of Family Planning of the New York State Health Department with consultation from the Family Planning Evaluation Division of the Center for Disease Control, Atlanta, Georgia, in response to a need for information on correlates of planned and unplanned fertility, family planning practices, and the sexual experience and contraceptive practice of unmarried women, an important program target group. This paper deals with the 497 never-married women included in the survey.

The interest in data for never-married women, especially teenagers, is due to the increasing rate of out-of-wedlock births in recent years and a concurrent decline in marital fertility (1). In 1974, 13% of all births in the United States were out of wedlock; 36% of births to women aged 19 or younger were out of wedlock (2). In the mid-1960s, for women 15-19 years of age, 42% of legitimate births were estimated to be premaritally conceived (3). A study done in Massachusetts in the late 1960s shows this figure to be as high as 60% for that state (4). In 1973, 68% of all legal abortions were performed on unmarried women (5). Since 1972, with the total fertility rate below replacement reproduction, it has become apparent that an increasing proportion of unplanned fertility in the United States may be attributable to out-of-wedlock births (6).

The National Fertility Studies, which were conducted in 1955, 1960, 1965, and 1970, only surveyed women who had been or were then married (ever-married). The only comparable data for never-married women were obtained in 1971 through a national probability sample of the 15-to-19 year-old female population in the United States (7,8). For never-married women over 19, no survey data are available on sexual experience and contraceptive practice with the exception of studies involving special groups, such as college

women.

#### METHODOLOGY

The basic survey design was a modification of the stratified, 2-stage, cluster sampling technique described by Serfling and Sherman and standard statistical formulas, as described by Kish. which take into consideration the design effect of a cluster sample, were utilized in considering the survey design and sample selection (9,10). Briefly, the Serfling-Sherman design calls for the ranking of each census tract or minor civil division in a survey area according to a set of socioeconomic criteria, then grouping the tracts into socioeconomic strata. Criteria for the stratification had been developed by the Division of Epidemiology and Preventive Health Services of the New York State Health Department (11). The New York stratification scheme is not self-weighting, so there was a deliberate use of different sampling rates for each stratum. The lower socioeconomic strata were oversampled as an independent sample was selected for each stratum. Thus, throughout this paper, results presented for any individual socioeconomic stratum are independent sample results, but all findings presented over socioeconomic strata, for the SMSA or non-SMSA or the total Albany Health Region, are based on a weighting scheme that takes into account the deliberate use of different sampling rates in each stratum.

## RESULTS

As seen in Table 1, our investigation indicates that in the health region studied 23% of never-married women 15-19 years of age and 71% of never-married women 20-44 years of age have experienced coitus. The proportion of never-married women who had experienced intercourse did not differ between the SMSA and non-SMSA areas. For SMSA teenagers, there appears to be an inverse relationship between sexual experience and socioeconomic area. In the non-SMSA, no such relationship is seen; for never-married women over 19 no such relationship is evident for either area. Among 15-to-19 year-olds in the lower socioeconomic area of the SMSA, 46% of blacks were sexually experienced as compared to 29% of whites. However, there was no difference in rates of sexual experience between black and white never-married women over 19.

For the AHR, the likelihood that a young never-married woman will have experienced coitus rises from 16% for the 15-17 year-old age group to 49% for the 18-19 year-old age group. The sexual experience rate is somewhat higher for non-SMSA women than for SMSA women; for non-SMSA women a 3 to 1 differential between lower and upper socioeconomic strata was reported (35% versus 12%).

Table 2 compares the AHR results for 15-19 year-olds with the results of the 1971 U.S. survey. Sexual experience in the AHR in 1974 was slightly less than that seen in the United States in 1971. However, in the lower socioeconomic area of the

SMSA, sexual experience was higher in the AHR overall and for white teenagers, but lower for black teenagers.

Another variable used in the analysis of the National Survey as well as in the AHR survey was religion. Analysis of religious differences and sexual experience patterns is handicapped by small numbers in some categories, but data are available for upper and lower socioeconomic strata in both the SMSA and non-SMSA. As seen in Table 3, the differential in the rates of sexual experience between Protestant and Catholic teenagers is of approximately the same magnitude as that found in the United States in 1971, but is at a slightly lower level for both groups. Catholics tend to be below average and Protestants somewhat above in the proportion sexually experienced.

Of the sexually experienced never-married women 15-44 years of age, 50% were currently practicing contraception, 20% had at some time, and 30% had never done so. The group most likely to be using contraception and least likely to have never practiced contraception is the 20-24 year-old age group. This is essentially true for all socioeconomic areas in both the SMSA and non-SMSA. A greater proportion of non-SMSA women were currently practicing contraception than SMSA women, and this difference would be even greater if we consider that 73% of non-SMSA women who are not currently practicing contraception are not currently sexually active compared with only 55% of SMSA women.

Seventy-five percent of never-married women who are currently or who have ever practiced contraception had used oral contraceptives as the most recent method. For women 20-44 years-old the most recently used method of contraception was oral contraceptives for 86%. For teenagers, the most recently used method of contraception was oral contraceptives for 63% and condoms for 29%. Condoms were used to a greater extent by SMSA women than non-SMSA; whereas other methods such as foam, diaphragm, rhythm, douche, jelly, and withdrawal, were relied on to a greater extent by non-SMSA women. In the upper socioeconomic strata of the SMSA, teenage never-married women relied on oral contraceptives and condoms equally; but in the lower strata much greater reliance was placed on oral contraceptives. Twice as many women in the AHR reported that they had never practiced contraception, as in the 1971 U.S. survey (Table 4). Some of this difference appears to be related to the fact that withdrawal was very seldom reported as a method used in the AHR, compared with over 10% of the women so reporting in the U.S. survey. Further communication with those responsible for the U.S. survey revealed that they had used the term "withdrawal or pulling out" as a method of contraception; whereas, in the AHR we had used the term "with-drawal." Otherwise, the distribution of methods most recently used by SMSA women is consistent with that in the central cities of the United States. However, for non-SMSA women in the AHR, a much greater proportion of teenagers were relying on oral contraceptives than teenagers in the United States. Part of this difference may be explained by when the AHR survey was done, which was 3 years after the U.S. survey, a period in which family planning programs were extending

into rural areas.

For all medical methods, 60% of women who had ever practiced contraception utilized private physicians as their source of contraceptives, and 31% attended planned parenthood clinics. Drugstores were the principal source of contraception for non-medical methods. Whereas 6.6% of nevermarried SMSA women who had ever used contraceptives reported that public clinics were their source of contraceptives, this overall proportion may be misleading without a control for socioeconomic status. Only women in the lower socioeconomic strata indicated public clinics as their source. In the lower socioeconomic stratum, 38% of women received contraceptives from public clinics, 30% from planned parenthood clinics, and 27% from private physicians.

In the AHR 22% of first births were either out-of-wedlock or premaritally conceived. Within the SMSA, the proportion of first pregnancies that were a result of post-marital conception decreases from 80% in the upper socioeconomic stratum to 66% in the upper middle and lower middle socioeconomic strata, to only 45% in the lower socioeconomic stratum. Fully 20% of ever-married women in the lower socioeconomic strata are estimated to have had a premaritally conceived legitimate birth, and an additional 24% have had an out-of-wedlock birth prior to marriage. These data are currently being analyzed by marriage co-hort and age at first marriage.

If we focus our attention on out-of-wedlock births only, the planning status for all out-ofwedlock births in the period 1969-1974 is shown in Table 5. Planned births are those that were both desired and did not occur before they were planned, mistimed are those that occurred before planned but are still desired, and unwanted are "number failures." This terminology conforms to that of the published analyses of the 1965 and 1970 National Fertility Studies (12,13). Nineteen percent of the out-of-wedlock births in the time period covered in the AHR survey were reported as planned; in 1971 in the United States, 20% of premarital first pregnancies in women who are unmarried at the time of pregnancy outcome were reported as planned (14). There is essentially no difference by ethnic group in the reporting of planned out-of-wedlock births, but some differences in planning status are shown when comparing the lower socioeconomic stratum to all other socioeconomic stratas.

# CONCLUSION

The data reported here give an overview of sexual experience, contraceptive usage, and source of contraception for never-married women in the AHR. With this data, it should be possible to estimate the need for effective contraceptive services for unmarried women, whatever their economic status, who are sexually experienced but do not have access to or are not currently using effective means of fertility control and who do not desire to be pregnant (18). The data on unplanned pregnancies and out-of-wedlock births should indicate areas of need for family planning services and the data on contraceptive usage and source of contraception provide information that is useful in assessing the provision of these services in both the public and private sector. Of special

interest is the fact that 27% of SMSA women in the lower socioeconomic strata who had ever practiced contraception utilized private physicians as their source of contraception, and 66% of never-married women in other socioeconomic strata utilized private physicians. In general, the sexual experience of never-married 15 to 19 yearolds in the AHR, when compared by area of residence, religion, and other variables, is slightly lower than the experience reported in 1971 for never-married 15 to 19 year-olds in the United States. Although some recent studies have shown-and others hypothesized--that since 1971 sexual experience has increased for teenagers in the United States, the AHR appears to be an area where the rate of sexual experience in 1974 was only equal to or somewhat below the experience of similar women in the United States 3 years previously (15-17).

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TABLE 1

Percent of Never-Married Women 15-44 Years of Age Who Have Ever Had Intercourse, by Socioeconomic Area and SMSA Residence Albany (NY) Health Region: 1974

Socioeconomic			Age Group	
Area	15-19	20-44	(20-24)	15-44
A. SMSA				
Upper	19.1	64.1	(62.1)	30.5
Upper-Middle	19.0	78.1	(80.8)	38.9
Lower-Middle	27.5	59.0	( 50.0)	38.9
Lower*	38.2	78.4	(88.5)	54.3
TOTAL SMSA (Weighted)	<u>22.1</u>	71.2	( 72.0)	<u>37.7</u>
B. Non-SMSA				
Upper/Upper-Middle	12.2			34.4
Lower-Middle	37.9			46.7
Lower	20.0	<i>55.6</i>		29.4
TOTAL Non-SMSA (Weighted)	24.2	<u>70.7</u>		<u>39.3</u>
C. Albany Health Region				
TOTAL (Weighted)	<u>23.0</u>	<u>71.0</u>		<u>38.4</u>

\*Lower Socioeconomic Area by Race:

Black 45.8 77.3 60.9 White 29.2 78.6 47.4

TABLE 2

Percent of Never-Married Women 15-19 Years of Age Who Have Ever Had Intercourse, by SMSA Residence Albany (NY) Health Region, 1974 and United States, 1971

Residence	Albany Health Region (1974)	United States (1971)*
SMSA of <1,000,000 Central City Remainder	22.1  	32.4 23.0
Non-SMSA	24.2	26.2
SMSA-Lower Socioeconomic Are Black White TOTAL	45.8 29.2 38.2	60.1 20.7 33.0

<sup>\*</sup>Kantner JF and Zelnik M: Sexual Experience of Young Unmarried Women in the United States. Family Planning Perspectives 4(4):1, October 1972

<sup>\*\*</sup>Comparison data for the United States is taken from the category, SMSA <150% of Poverty

TABLE 3

Percent of Never-Married Women 15-19 and 15-44 Years of Age Who Have Ever Had Intercourse, by Socioeconomic Area, SMSA Residence, and Religion Albany (NY) Health Region: 1974

Socioeconomic	15-19		15-44	
Area	Catholic	Protestant	Catholic	Protestant
A. SMSA				
Upper/Upper-Middle	17.7	16.7	31.7	<b>35.</b> 9
Lower-Middle/Lower	20.3	46.6	34.2	63.6
TOTAL SMSA (Weighted)	<u>18.3</u>	<u>23.1</u>	<u>32.2</u>	41.8
B. Non-SMSA				
Upper/Upper-Middle	**	**	24.1	42.4
Lower-Middle/Lower	31.5	41.6	38.1	48.2
TOTAL Non-SMSA (Weighted)	<u>17.0</u>	<u>33.3</u>	<u>31.6</u>	45.5
C. Albany Health Region				
TOTAL (Weighted)	<u>17.7</u>	<u>27.6</u>	<u><b>31.</b>9</u>	43.4
D. United States (1971)*	21.1	29.7		

<sup>\*</sup>Kantner JF and Zelnik M: Sexual Experience of Young Unmarried Women in the United States. Family Planning Perspectives (4)4:1, October 1972
\*\*Unweighted number of cases <20

TABLE 4

Percent of Sexually Experienced Never-Married Women 15-19 Years of Age According to Method Most Recently Used, by SMSA Residence: Albany (NY) Health Region, 1974 and United States, 1971

	Albany Healt	h Region (1974)	United States (1971*)			
			SM			
Method Most			Central			
Recently Used	SMSA	Non-SMSA	City	Remainder	Non-SMSA	
Pi11	34.0	45.0	30.3	15.4	17.7	
IUD	0.5	0.0	1.8	1.1	0.7	
Condom	27.4	5.8	22.4	31.2	29.0	
Other**	4.7	14.6	28.4	37.6	<i>36.7</i>	
Never Used	33.5	34.5	<u>17.1</u>	14.7	15.9	
TOTAL	100.0	100.0	100.0	100.0	100.0	

<sup>\*</sup>Kantner JF and Zelnik M: Contraception and Pregnancy-Experience of Young Unmarried Women in the United States, Family Planning Perspectives 5(1): 11, Winter 1973

<sup>\*\*</sup>Includes foam, diaphragm, rhythm, douche, jelly, and withdrawal

TABLE 5

Percent Distribution of Out-of-Wedlock Births, 1969-1974, by Planning Status for Ethnic Group and Socioeconomic Area Categories--Albany (NY) Health Region

Planning Status	TOTAL	Ethnic White	Group Black	Socioeco Lower	nomic Area All Other
TOTAL	100.0	100.0	100.0	100.0	100.0
Planned Mistimed Unwanted Unknown	19.0 73.9 5.0 2.0	18.1 75.6 4.7 1.6	19.3 69.1 7.7 3.9	24.8 67.9 5.5 1.8	15.8 77.4 4.8 2.0
Number of Births (Unweighted)	(74)	(46)	(24)	(48)	(26)
Planned Pregnancies: United States (1971)*	19.8	15.6	23.6		

<sup>\*</sup>Proportion of premarital first pregnancies for women who were unmarried at time of pregnancy outcome  $(\underline{14})$