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Subpopulation Differentials in STD Transmission

The exact impact of individuals' sexual behavior on their risk of acquiring sexually transmitted diseases (STDs) and, in particular, on population STD rates are not known. In the context of high STD prevalence, a high rate of partner change among a subset of men or women can fuel disproportionate transmission.¹ Such conditions may in fact exist among subpopulations at highest risk in the United States and may help explain consistently high rates of STD in these populations.

The incidence of bacterial STD such as gonorrhea and syphilis is greater among Blacks than among Whites in the United States; viral STD prevalence is substantially greater among blacks.² However, Black women do not report having greater numbers of current partners than do White women.³ Nevertheless, a Black woman's probability of exposure to a sexually transmitted pathogen per sexual encounter is higher than that of a White woman. For example, Black women who have two to three lifetime partners have a

100% increased likelihood of developing acute pelvic inflammatory disease compared with Black women with one lifetime partner; the increased risk is only 50% among White women.⁴ This suggests that, for many Black women, an especially important risk factor for STD may be the risky sexual behavior among their partners, Black men.

Recent data supporting the hypothesis that some Black men play a disproportionate role in STD transmission come from a nationally representative survey of adults, the General Social Survey (GSS).⁵ A survey on social issues, the GSS uses a probability sample of the US population over 18 years of age. Respondents are asked to complete a one-page, self-administered questionnaire about sexual behaviors. For the period 1988 to 1990, the GSS response rate was about 80% for the general survey and over 90% for the sexual behavior questionnaire (n = 4390). Respondents were asked, "How many sex partners have you had in the last 12 months?" The proportion of White and Black women with four or more partners in the preceding 12 months was very low (see Table 1). However, among White men, one in fourteen reported four or more partners in the preceding 12 months, and among Black men, almost one in five reported this many partners (see Table 1).

These data may be subject to underreporting bias, and sample sizes are relatively small. Nevertheless, they suggest that a larger subset of Black men than White men practices a high rate of partner change. In an environment of insufficient condom use and limited use of health care, such a subset may suffice to keep some STDs endemic to Blacks.¹

Sexual behavior is but one component of the elevated STD incidence among Blacks. Health behaviors that are more prevalent among Blacks (such as vaginal douching and lack of male circumcision)

may enhance sexual transmission of pathogens. Socioeconomic status is strongly associated with STD incidence.² In addition, the high prevalence of STD among Blacks keeps incidence high irrespective, to some extent, of sexual behavior differentials. Even so, having multiple sexual partners clearly places the individual and the community at increased risk for STD transmission; reducing the rate of partner change among a small "high-risk" subset of a population can reduce transmission throughout the entire community.¹

Specific attention should be focused on identifying and intervening in the small subset of men who have many sexual partners. Offering these men screening and counseling for asymptomatic STD, education about STD recognition and behavioral prevention, and wider access to STD clinical services has the potential to dramatically reduce STD incidence among these men and their larger communities. □

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TABLE 1—Number of Sexual Partners and Percentage Distribution in the Year Preceding Survey, by Race and Gender

No. of Partners	Female		Male	
	White (n = 1869)	Black (n = 280)	White (n = 1472)	Black (n = 158)
0	28.3	22.5	14.3	10.8
1	63.3	62.5	67.7	52.5
2-3	7.2	12.8	11.0	19.0
4	0.6	1.1	3.1	6.6
5+	0.5	1.1	3.8	11.1

Source. General Social Survey, 1988-1990, National Opinion Research Center, University of Chicago, Chicago, Ill.