RESEARCH AND PRACTICE

Sexual and Drug Use Behavior Among Women Who Have Sex With Both Women and Men: Results of a Population-Based Survey

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Recent HIV/AIDS trends in the United States suggest a relative increase in HIV infections among women attributed to injection drug use or heterosexual contact.¹ Although the biological risk of female-to-female sexually transmitted HIV is unknown, it is thought to be much lower than the risk of transmission between men and women, including instances in which a condom is used.² However, studies focusing on women who have sex with women (WSW) have shown that some subgroups of WSW exhibit high levels of sexual risk behaviors with men as well as unsafe injection drug use.^{3,4} Thus, if risk assumptions are based on self-reported or presumed sexual identity, possible risks for HIV infection may be underestimated in some subgroups of WSW.

Few studies have estimated the proportion of WSW or characterized their behavior in samples representative of the population as a whole. Here we describe sexual and drug use behaviors associated with HIV and other sexually transmitted diseases (STDs) among WSW who took part in a door-to-door, population-based survey of women aged 18 to 29 years. The survey was conducted between April 1996 and January 1998 among residents of low-income neighborhoods in Northern California. Study methods have been described in detail in a previous article.⁵

Of 2547 women who completed the study, 2229 (88%) reported sex exclusively with men, 189 (7%) reported sex with both men and women, and 16 (1%) reported sex exclusively with women. Of the 7 HIV-positive women, 4 reported only male partners, 2 reported both male and female partners, and 1 reported only female partners. None of the 16 WSW who reported sex exclusively with women reported any injection drug use. Therefore, analyses of risk were limited to those who reported sex with both men and women and those who reported sex exclusively with men (Table 1).

Compared with women who had sex exclusively with men, women who had sex with both men and women were significantly more likely to report past and recent highrisk sexual behavior, including sex with an HIV-positive man, multiple male sexual partners, sex with a man who has sex with men, sex with an injection drug user, trading of sex for drugs or money, and anal sex. They were also more likely to report past and re-

TABLE 1—Prevalence of Sexual Behaviors, Injection Drug Use, and STD/HIV Infections: Population-Based Survey, Northern California

Risk Behavior or Marker	Women Who Reported Sex Exclusively With Men ^a	Women Who Reported Sex With Men and Women ^a	Р
Sexual risk			
Ever had sex with MSM, %	3	30	<.001
Sex with MSM within 6 months, %	<1	10	<.001
Ever had sex with an IDU, %	8	38	<.001
Sex with IDU within 6 months, %	2	19	<.001
Ever had sex with an HIV-positive man, %	1	5	<.001
Sex with HIV-positive man within 6 months, %	<1	2	<.001
Mean No. of lifetime male partners	16	307	<.001
Mean No. of male partners within 6 months	2	9	<.001
Ever traded sex for drugs or money, %	8	40	<.001
Traded sex for drugs or money within 6 months, %	4	24	<.001
Ever had anal sex, %	18	56	<.001
Injection drug use, %			
Ever injected cocaine	<1	10	<.001
Injected cocaine within 6 months	<1	5	<.001
Ever injected heroin	1	17	<.001
Injected heroin within 6 months	<1	9	<.001
Ever injected speed	1	13	<.001
Injected speed within 6 months	<1	6	<.001
Ever shared needles	43	64	.08
Shared needles within 6 months	46	27	.18
STD/HIV prevalence, %			
HIV positive	<1	<1	.27
Syphilis	<1	1	.33
Chlamydia	2	<1	.08
Gonorrhea	<1	1	.64
Hepatitis B	5	9	.03
Hepatitis C	1	8	<.001

Note. Women who reported no sex, refused to report sexual activity, or reported sex with women only were excluded. STD = sexually transmitted disease; MSM = men who have sex with men; IDU = injection drug user.

^aPopulation prevalence adjusted for the survey design.

cent injection drug use, including use of heroin, cocaine, and speed. Finally, they were more likely to have serological markers for both hepatitis B virus (anti-HBc, HbsAG, or both) and hepatitis C virus (anti-HCV). Rates of HIV and other STDs did not significantly differ owing to the small numbers of these infections.

The rates of sexual and injection drug risk activities exhibited by women in this population-based survey who reported sex with both men and women place this group at potentially higher risk of HIV and other STDs than women who were exclusively sexual with either men or women. Prevention efforts should avoid assumptions based on reported sexual identity and should acknowledge that women who report sex with both women and men may be at increased risk for HIV and other STDs.

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Contributors

S. Scheer contributed to the conception, design, analysis, and writing of the brief. I. Peterson and K. Page-Shafer assisted with management and analysis of the data. V. Delgado, J. Ruiz, F. Molitor, W. McFarland, and J. Klausner contributed to coordination of and data collection for the study; they also contributed to the interpretation of the data. A. Gleghorn contributed to the conception and design of the study. All of the authors reviewed and edited the brief.

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