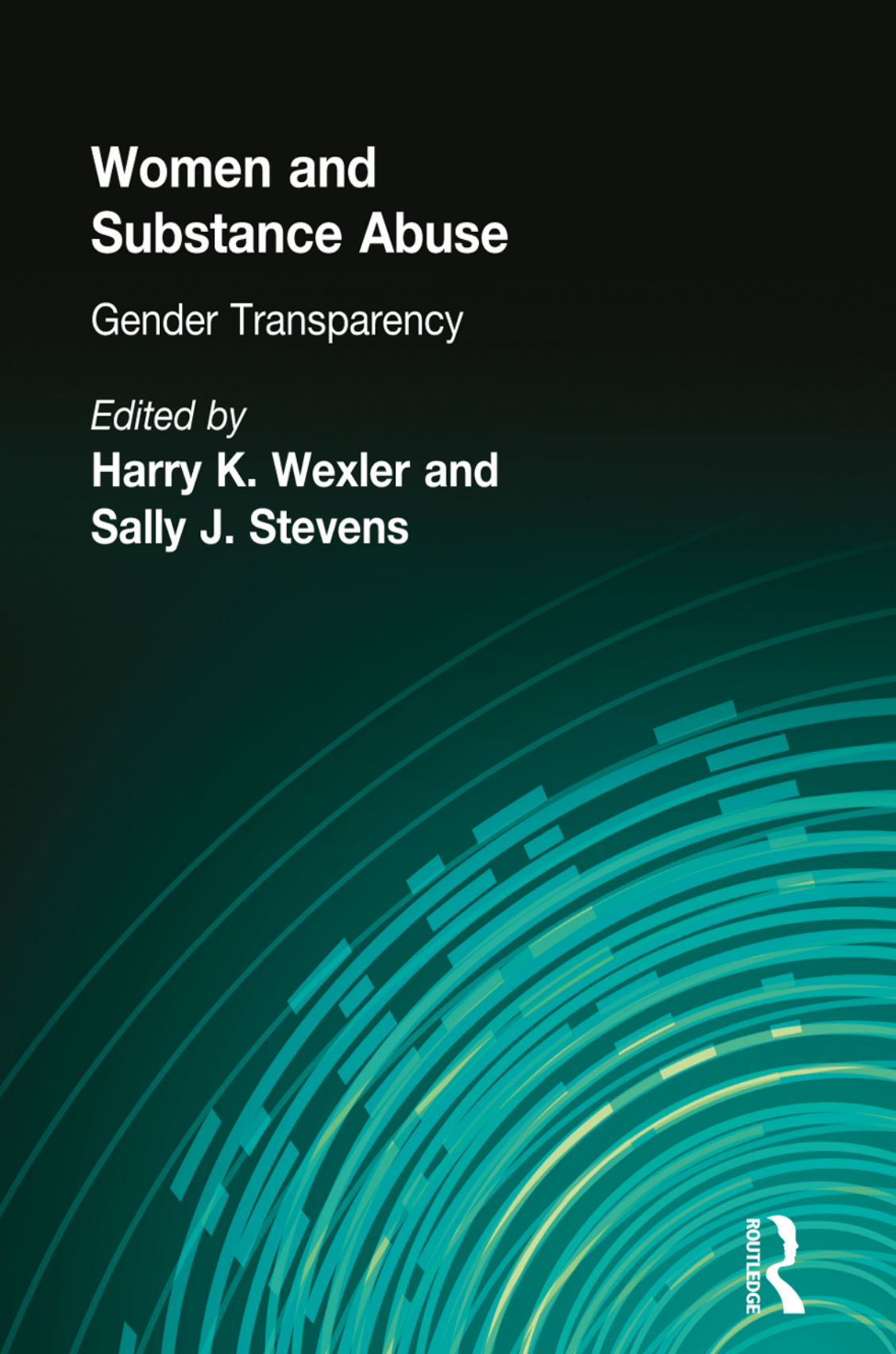
Women and Substance Abuse

Gender Transparency

Edited by

Harry K. Wexler and Sally J. Stevens



Sally J. Stevens, PhD
Harry K. Wexler, PhD
Editors

Women and Substance Abuse: Gender Transparency

Women and Substance Abuse: Gender Transparency has been co-published simultaneously as *Drugs & Society*, Volume 13, Numbers 1/2 1998.

Pre-publication REVIEWS, COMMENTARIES, EVALUATIONS . . .

"In these years of increased poverty, addiction, violence and incarceration for women, it is a welcome relief to have a book (edited by a woman) dedicated to the subject of women and substance abuse. Hopefully the efforts of Dr. Stevens will bring academic attention and research to the subject which will help shape policies so that more aid is extended to women. As a treatement professional responsible for the delivery of services to women for over a decade it is encouraging to finally see, in print, research findings and discussions that are reflective of the reality of what is occuring in the field. Substance abusing women have been on the waiting list too long in every area!"

Robin McGrath
Director of Women's Services
Desert Willow Project, NDRI
Tucson, Arizona

More pre-publication
REVIEWS, COMMENTARIES, EVALUATIONS . . .

"Stevens and Wexler have assembled an exceptional volume of the patterns, correlates and consequences of substance abuse among women. Much of the work includes data from samples that are population-based, which increases the generalizability of findings to a large population of women. *Women and Substance Abuse* underscores the urgent need to increase efforts to recruit more women into drug abuse treatment, and to reduce the barriers that restrict women from enrolling. In describing the characteristics of substance abusing women, this volume also covers the intersecting epidemics of STDs, violence and HIV and addresses the importance of integrating gynecologic services and domestic counseling into prevention programs for women. As AIDS has become the 3rd leading cause of death among 25 to 44 year old women in the US, and the leading cause of death among minority women of that same age, there is an urgent public health need to target women for intervention studies that focus on reducing high risk behaviors. This compilation of studies describes what has worked, what could be improved and what direction is needed for the future.

The findings presented in this book are timely and comprehensive and indicate the devastating societal, medical and economic consequences of substance abuse. *Women and Substance Abuse* should be read by substance abuse researchers, as well as drug treatment counselors, primary care providers, health care administrators and policy makers.

Women and Substance Abuse is a wake up call for all investigators to do the hard work necessary to recruit and maintain women in studies, and to focus interventions on topics that are relevant to women. It is also a plea to the funding institutions to base funding decisions not only on a promise to enroll women but on actual success in enrolling women in research studies. Recruiting women–especially women with children, minority, substance abusing, out of treatment, HIV positive and incarcerated women–into research projects is a major accomplishment, and the authors must be congratulated for their extraordinary success in enrolling women in numbers great enough to be able to evaluate findings specifically related to gender."

Linda B. Cottler, PhD
Associate Professor of Epidemiology in Psychiatry Washington University School of Medicine, Department of Psychiatry, St. Louis, Missouri

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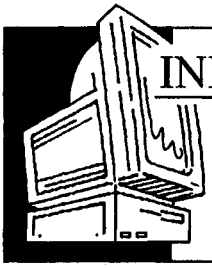
Dedicated to Evelyn Mae Walcott Stevens



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Women and Substance Abuse: Gender Transparency

CONTENTS

ABOUT THE EDITORS

Sally J. Stevens, PhD, is Research Associate Professor with the Southwest Institute for Research on Women (SIROW) in the College of Social and Behavioral Sciences at the University of Arizona in Tucson, Arizona. Dr. Stevens has received numerous large-scale federal grants to administer and research innovative drug treatment programs that serve pregnant women and women with children. She has also developed and implemented women-centered interventions that assist drug using women to reduce their risk of becoming infected with HIV. Dr. Stevens is widely published in the area of women's health, particularly health issues that encompass concerns of underserved, disenfranchised drug-involved women.

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Preface

The selected concerns and research findings presented in this volume pertain to issues involving women and substance abuse. The three papers that comprise the first section address drug use patterns and HIV risk behavior of female substance abusers. These papers provide enlightening information regarding drug use patterns and HIV risks of women from three cities: Rio De Janeiro, Brazil; Philadelphia, PA; and New Haven, CT. The authors conclude that given the intensity of drug use, the extent of HIV risk behavior, the high level of HIV seroprevalence, and the social context and forces within which the women live, there is a tremendous and immediate need to provide ethnic and gender specific concentrated harm reduction interventions including drug treatment.

The second section of this volume examines differences between women engaged in drug treatment and women who are not engaged in drug treatment. Additionally, a gender comparison identifying how women who enter treatment are different than men who enter treatment is included. These authors found significant differences on variables such as race, choice of drug, injection as a route of administration, HIV risk, and drug treatment history of women in versus out of treatment. Consequently, the authors conclude that harm reduction strategies must be tailored to meet the needs of these two different groups of women. Moreover, gender differences such as women reporting more daily use of cocaine, greater proportions of past and current physical and sexual abuse, and greater concerns about issues related to children were also noted. These differences indicate that harm reduction strategies and drug treatment interventions must be refined to fit the specific needs of substance abusing women.

Section three includes two topics of special concern for substance abusing women: sexually transmitted disease and incidents of violence. Gender differences in risk for gonorrhea infection were shown to differ between

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women and men. Risk factors for women included the trading of sex for money, being American Indian or Alaska Native, perceiving oneself as homeless, and trading sex for drugs. Results of this study may be particularly helpful in guiding public policy and public health interventions. Also helpful in developing public policy and interventions are the results from the paper on violence. While substance abusing women report frequently being the victim of violence they also report being the perpetrator of violence; treatment interventions must address both.

The fourth section looks at the role of physicians and prenatal care providers of substance abusing women. These studies explore whether physicians and prenatal care providers identify and address substance abuse and HIV with their clients. Conclusions from these authors suggest that medical settings often miss opportunities to provide prevention, referral and interventions that are clearly needed by substance abusing women. Moreover, drug treatment programs need to be multifaceted to include family planning, prenatal care, and parenting skills.

The final section of this volume addresses drug treatment strategies that may be particularly effective for addicted women. One of the papers discusses the development of a prison-based therapeutic community for women, while two papers examine the treatment effectiveness of long term residential treatment for women without children, pregnant women and women with children. Outcome data from these two papers supports the need for long term treatment and the inclusion of children in the treatment setting. The final paper discusses the economic impacts of clients before, during and after substance abuse treatment. Data from this important study supports the cost effectiveness of providing substance abuse treatment for women.

Sally J. Stevens, PhD
Harry K. Wexler, PhD

I. DRUG USE AND HIV RISK BEHAVIOR OF FEMALE SUBSTANCE ABUSERS

Drug Use and Risks for HIV/AIDS Among Indigent Women in Rio de Janeiro, Brazil

Hilary L. Surratt, MA
James A. Inciardi, PhD

SUMMARY. The PROVIVA project (*Pro*jeto *V*enha *I*nformar-se sobre o *V*irus da *A*IDS), funded by the National Institute on Drug Abuse and administered by the University of Miami School of Medicine, was established in 1993 for the purpose of developing and implementing a community-wide HIV/AIDS prevention effort in Rio de Janeiro, Brazil. Recruitment began in mid-1994 and the spe-

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cific target groups included cocaine-using women and men in Rio's *favelas* (shantytowns) and "red light" districts. Study participants were obtained through standard chain referral and targeted sampling techniques, and through May 31, 1997 over 1,500 were enrolled in the project. This analysis focuses on the first 339 women recruited.

The women ranged in age from 18 to 62, with a median of 29 years. The majority were either black or multi-racial (*morena, parda, mulata, café com leite*, and other multi-racial designations), and almost all were of low socio-economic status. The HIV risk behaviors engaged in by these women during the 30-day period prior to interview included sex with multiple partners (17%), sex with an injection drug user (3.8%), injection drug use (4.1%), and anal sex (12.7%). In addition, also during the past 30 days, 70.8% had used cocaine either daily or several times a week and 81% reported no use of condoms. Finally, 95.6% of the women had never been in drug treatment, 28.9% reported exchanging sex for money, 10.3% reported exchanging sex for drugs, and 15.5% reported histories of one or more sexually transmitted diseases.

A total of 8.5% of the women tested positive for antibody to HIV-1. The HIV test results and risk behaviors, combined with the apparent lack of drug abuse treatment services suggest that cocaine-using women in Rio's *favelas* and red light districts are in need of concentrated services in the areas of HIV and other STD prevention/intervention, substance abuse treatment, and other risk reduction initiatives. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: getinfo@haworthpressinc.com]*

Although it would be difficult to predict the future course of the AIDS epidemic, The World Health Organization anticipates that the number of HIV-infected persons worldwide will reach 26 million by the year 2000, and that 90% of all AIDS cases will be diagnosed in developing nations (Berkley, 1993). Currently, women constitute more than 40% of those infected with HIV. In absolute numbers, over 7 million women are already infected, and another 1 million HIV infections were anticipated to have occurred in 1995 alone (World Health Organization, 1995). Although women in sub-Saharan Africa display the most elevated rates of HIV seroprevalence, those in Latin America are becoming infected in ever-expanding numbers (De Bruyn, 1992).

It is believed that HIV transmission began in Latin America almost simultaneously with that in the United States, affecting primarily gay and bisexual men and injection drug users. Since the late 1980s, however, many Latin American nations have experienced dramatic increases in the

number of HIV infections acquired through heterosexual contact (Berkley, 1993). The rise in heterosexual transmission of HIV in Latin America has greatly impacted seroprevalence rates among women, given that male to female transmission is reported to be 24 times more efficient than female to male (World Health Organization, 1995).

In terms of reported cases of AIDS, Brazil ranks first among Latin American nations, and second in the world, surpassed only by the United States. Through November 1996, the Brazilian Ministry of Health National STD/AIDS Program had reported 94,997 cumulative AIDS cases (Brazilian Ministry of Health, 1996). In the late 1980s, the number of HIV-infected and AIDS symptomatic women in Brazil began to increase rapidly. Through 1987, for example, only 250 cases had been reported among Brazilian women, yet by late 1996 this number had risen to 18,320 (Brazilian Ministry of Health, 1996). Accordingly, the male to female ratio of AIDS cases dropped from 30:1 in 1985 to 6:1 in 1991 (Heise and Elias, 1995) to 3:1 at the close of 1995 (Brazilian Ministry of Health, 1996). Heterosexual contact is the major mode of transmission for females in Brazil (43.8%), followed by unknown causes (23.3%), injection drug use (19.6%), blood transfusions (7.2%), and perinatal transmission (6.0%). The actual number of AIDS cases in Brazil is likely underestimated and according to epidemiologists, the rate of underreporting may approach 100% (Goldstein, 1994). Especially troublesome is the underreporting of cases among women due to their lack of access to health care services and the belief of many physicians that "good girls do not get AIDS" (Hankins and Handley, 1992; Carovano, 1991).

The response of the Brazilian government to the AIDS epidemic has been far from adequate. Government inaction was notable as the AIDS epidemic was unfolding, with scare tactics being used as the most typical attempt at intervention rather than informational advertisements and proactive prevention programming. In fact, many campaigns actually neglected to report how HIV was contracted (Goldstein, 1994). Further, the vast majority of AIDS prevention/intervention efforts–in Brazil and elsewhere–have targeted injection drug users and commercial sex workers, to the exclusion of others at risk for HIV (Carovano, 1991; Campbell, 1990). As a result, many women who do not engage in injection drug use or prostitution do not perceive themselves to be at risk and may do little to change their behaviors (Campbell, 1990).

Despite the low perception of risk among the general population of women in Brazil, heterosexual contact with a seropositive sex partner continues to present a significant risk for contamination. In fact, the greatest need for AIDS education and intervention efforts may be among mo-

nogamous married and cohabiting women. For example, a study conducted in São Paulo–Brazil's largest city–found that just under half of all new AIDS cases among women were reported among those who were both married and monogamous (Heise and Elias, 1995). This rising seroprevalence rate might be explained in any number of ways. A 1995 study found the percentage of married or cohabiting Brazilian men reporting multiple sex partners in the past year to be approximately 20%, far surpassing that of men in the United States, Great Britain, and France (Caraël et al., 1995). Further, research in Rio de Janeiro found that *unprotected* insertive anal intercourse with male partners during a six month period was routine among men who identified themselves as bisexual. Just under 90% of these same men also reported unprotected vaginal sex with regular female partners in the same period (Heise and Elias, 1995).

The implications of these data for the spread of HIV among women in Brazil are evident, and when considered in the context of Brazilian cultural values they appear all the more troubling. As in many developing nations, the inferior social and economic position of women in Brazil elevates their risk for HIV infection. They are frequently denied both educational opportunities and the right to purchase or hold property (World Health Organization, 1995). This subordination increases women's economic dependence while lessening their negotiating power in personal relationships (World Health Organization, 1995; Carovano, 1991). For indigent women, subordination and risk would appear to be even more pronounced, particularly among those who engage in drug use as well. Within the context of these remarks, this analysis examines the drug using and HIV risk behaviors in a sample of indigent women recruited for HIV/AIDS prevention/intervention at the NIDA-funded PROVIVA project in Rio de Janeiro.

METHODS

The general purposes of the PROVIVA (*Pro*jeto *V*enha *I*nformar-se sobre o *V*irus da *A*IDS) project are to establish a community HIV/AIDS surveillance and monitoring system in Rio de Janeiro, Brazil, and to develop, implement, and evaluate a community-based HIV/AIDS prevention/intervention program for cocaine injectors and snorters, and transvestite prostitutes, in Rio's *favelas* (shantytowns) and "red light" districts. A secondary purpose is to generate an effective field-based HIV prevention program that can be utilized in other developing communities.

PROVIVA has been in the field since March 1994, and as of May 31, 1997, over 1,500 clients had been recruited, 339 of whom were women.

Eligible participants were those who were at least 18 years of age, were not in drug treatment or jail during the month prior to interview, and who reported cocaine use during the thirty days prior to interview. Project recruitment was conducted by indigenous outreach workers who were familiar with the target areas. Outreach workers located respondents in neighborhoods with high rates of cocaine use. Contacts were made on the street and in the *favelas* using standard multiple-starting-point snowball sampling techniques.

After informed consent was obtained, interviews were conducted with the clients using the Cooperative Agreement Risk Behavior Assessment (RBA), a standardized data collection instrument developed by scientists and funded investigators. Questions about drug use, sexual behavior, and health status were asked during an interview lasting approximately 1 hour, and respondents were paid the equivalent of US$10 for their time. Urine and blood samples were also collected. The characteristics, risk behaviors, and serostatus of the female clients for whom basic assessment and HIV data are available form the core of the analysis in this paper.

RESULTS

As indicated in Table 1, the 339 female respondents had a median age of 29 years, with the overwhelming majority (72.2%) under age 35. In terms of race/ethnicity, 38.9% identified themselves as black, 35.7% as "multi-racial" (mulata, parda, and morena), and 25.4% as white. Educational attainment was low, with 87.9% of the women completing 8 or fewer years of schooling, while only 6.5% had graduated from high school. Income data also indicate that the earnings of these women were extremely low. The median monthly income of the sample was $100 U.S., which is equivalent to a minimum wage rate of $0.63 per hour for a full-time job, as compared to the rate of $5.15 per hour in the U.S. Furthermore, only 14.5% reported income from a paid job, while 51.6% received support from a spouse or relatives. Interestingly, a substantial number of women reported sources of income outside of the formal sector of the economy. For example, 8.6% earned money from prostitution in the month prior to interview, and 33.6% reported income from odd jobs, which primarily included street vending.

Almost all of the cocaine-using women had histories of alcohol use (98.5%), and the majority had experience with marijuana (69.0%). Table 2 shows that in terms of sequential patterns of drug use onset, the first drug used was alcohol at a median age of 15 years, followed by marijuana and cocaine at age 18. During the past 30 days, 87.6% reported alcohol use,

TABLE 1. Selected Demographic Characteristics of 339 Cocaine Using Women in Rio de Janeiro, Brazil, 1997

	N = 339
Age at Interview	
18-24	28.1%
25-34	44.1%
35+	27.8%
Median	29.0
Race/Ethnicity	
Black	38.9%
White	25.4%
Multi-racial	35.7%
Education	
8 years or less	87.9%
Some high school	5.6%
High school graduate	6.5%
Monthly Income (In U.S. Dollars)	
Less than $100	49.9%
$101-$300	37.8%
$301+	12.4%

Note: Income data were collected as the number of minimum salaries, then converted into US$ using an average minimum salary of R$100 (Brazilian Reais) at an exchange rate of 1.00.

35.1% reported marijuana use, and *all* reported cocaine use. Only 9.7% of the sample reported a history of injection drug use, and even fewer (4.4%) had received any treatment for substance abuse. Drug use during sexual activity was not uncommon, with 38.1%, 14.7%, and 39.2% reporting alcohol, marijuana, and cocaine use, respectively, during sexual encounters in the previous month.

Of the 283 women recruited into the prevention/intervention program who consented to a blood draw, 8.5% tested positive for antibody to HIV-1.[1] As indicated in Table 3, the risk factors most related to HIV seropositivity included having ever exchanged sex for drugs, a history of any sexually transmitted disease, and having had vaginal sex with multiple partners in the last 30 days. A history of injection drug use was also

1. HIV testing was done by ELISA, with confirmatory testing through both Western Blot and Indirect Immunofluorescence Assay (IFA) procedures.

TABLE 2. Drug Use and Treatment Histories of 339 Cocaine Using Women in Rio de Janeiro, Brazil, 1997

	N = 339
Percentage Ever Using	
Alcohol	98.5%
Marijuana	69.0%
Cocaine	100.0%
Median Age at First Use	
Alcohol	15.0
Marijuana	18.0
Cocaine	18.0
Percentage Using in Last Month	
Alcohol	87.6%
Marijuana	35.1%
Cocaine	100.0%
Ever Injected Drugs	9.7%
Ever in Drug Treatment	4.4%

strongly related to HIV seropositivity. Condom use rates were extremely low, with approximately 81% of sexually active women reporting *unprotected* sex in the last 30 days. Those women who did indicate at least some condom use were significantly more likely than other women to be involved in sex for money exchanges.

DISCUSSION

With 8.5% of the women sampled in this study testing positive for HIV, it appears that cocaine-involved women in Rio de Janeiro are a highly vulnerable population. While only 9.7% (N = 33) of the respondents have histories of injection drug use (nineteen former and fourteen active injectors), it is clear that, among these women, the risk of HIV transmission associated with sharing drug paraphernalia is significant. Much more prevalent, however, are the risks associated with unprotected heterosexual contact. Although the services and intervention offered at PROVIVA provided the first HIV testing for 87.9% of the women in this study, virtually all were aware of AIDS and its consequences, and the great majority

TABLE 3. HIV Seropositivity by Selected Risk Factors Among 283 Cocaine Using Women in Rio de Janeiro, Brazil, 1997

	N (% Seropositive)	P-value
Total Sample	283 (8.5%)	
Injection Drug Use		
Yes	30 (26.7%)	.000
No	253 (6.3%)	
Exchange Sex for Drugs		
Yes	27 (18.5%)	.05
No	256 (7.4%)	
STD History		
Yes	44 (20.5%)	.001
No	239 (6.3%)	
Number of Sex Partners (previous month)		
None	60 (1.7%)	.006
One	175 (8.0%)	
Two or more	48 (18.8%)	

(76.7%) felt that they had little or no chance of becoming infected with HIV. Interestingly, even women at high risk shared this perception. For example, of the fourteen current injectors, 57% felt that they had little or no chance of getting AIDS; and of the 52 women who had multiple sex partners in the last 30 days, 46.2% believed that they had little or no chance of getting AIDS.

Apart from sexual abstinence and monogamous relationships between uninfected partners, the use of condoms is currently the only effective means available for preventing the sexual transmission of human immunodeficiency virus. Yet with women in general, and Brazilian women in particular, the opportunity to use condoms is not always viable or practical. In a recent study of sexual behavior and AIDS risks in 13 developing nations, including a sample of 1,130 men and women in Rio de Janeiro, it was clear that condom use was limited (Mehryar, 1995). Some 18% of the women in the Rio sample were not even aware of the existence of condoms, and only 9% of sexually experienced women had ever used one. Of those who had used a condom at least once, the overwhelming majority were under age 25, never married, and had at least a high school educa-

tion. Further research in Brazil has also indicated that many low-income women have very limited knowledge about condoms. Many of these women expressed concern that condoms would become lost inside the vagina and travel to the throat, or if withdrawn, would remove their reproductive organs as well (Goldstein, 1993).

Brazilian cultural norms support notions of male dominance and control in sexual encounters (Gupta and Weiss, 1993), and as such, many women feel that discussing or negotiating safe sex with their partners is not permissible. Previous studies of sexual behavior in Brazil have confirmed that sexual negotiation is indeed unacceptable to many. An extremely large number of Brazilian women have reported choosing sterilization as their method of birth control in order to avoid discussions of contraception with their partners (Gupta and Weiss, 1993). For example, the proportion of married women of childbearing age in Brazil reporting the use of condoms was only 2% at the close of the 1980s (Goldberg et al., 1989). Similarly, in a study of Brazilian women of childbearing age, Goldstein (1994) reported that 71% used some method of birth control. However, of those who practiced birth control, 44% had been sterilized, 41% took oral contraceptives, and less than 2% used condoms. In subsequent focus groups with married females, none had broached the subject of condoms with their partners (Goldstein, 1994). Oftentimes, women who attempt to negotiate condom use are viewed as unfaithful or too "prepared" for sex (Carovano, 1991). Because of male resistance to using condoms, women appear more likely to rely on contraceptive strategies which do not require their partners' participation. Clearly, then, they remain at risk for exposure to HIV.

In this study, rates of condom use were higher than in the general Brazilian population, no doubt because of the targeting of drug users with information on AIDS and the risks of exposure to HIV. Nevertheless, their condom use was quite limited. Of the 255 women who engaged in vaginal sex during the past 30 days, 81% reported never using condoms and the remaining 18% reported using condoms only sporadically. The highest frequency of condom use appears to have occurred among those women who exchanged sex for money during the past 30 days, with 65.5% of these 29 women reporting "sometimes" use. However, the numerous occasions of sex among these women suggest that many contacts went *unprotected* as well, and this may explain why condom use was not related to HIV status in this sample. Importantly, however, high rates of HIV seropositivity among women reporting condom use may also speak to the poor quality of many of the condoms available in Brazil. A 1992 study conducted by International Consumer Research and Testing Limited of

Holland reported that 5 of the 7 major condom brands produced in Brazil did *not* prevent the transmission of HIV (Folha de São Paulo, 1992).

As a final point here, it is anticipated that reducing HIV risks within this population through the promotion of condom use will be especially difficult. Research has indicated that sexual inequality and limited opportunities for sexual negotiation are inversely related to socioeconomic status (Worth, 1989; Stein, 1990; Gupta and Weiss, 1993; Ulin, 1992). In this study, as indicated earlier in Table 1, the great majority of the women interviewed were of limited education, and almost all were indigent. In fact, most were residents of Manguiera and Maré, two of Rio de Janeiro's many hundreds of *favelas*.

The *favelas* have been a feature of urban Brazil for generations (Freyre, 1986). "Favela" in Brazilian Portuguese means "slum." Yet it is a particular type of slum that takes its name from the hill near Rio de Janeiro where the first one appeared. The *favelas* began to appear on the hillsides of Rio de Janeiro at the end of the nineteenth century, and spread rapidly after 1930 as shelters for newly-arriving migrants (Burns, 1980: 569). There has been a steady stream ever since, and at the close of the 1980s it was estimated that some 1,500 "favelados" were arriving each day (Archambault, 1989).

Brazil's Municipal Planning Institute has estimated Rio's *favelas* to number 545 and house more than 1 million persons (Loveman, 1991). Clustered on the hills and mountainsides that overlook Rio's fashionable beaches, the *favelas* are slums in which only a small portion of households have electricity, running water, or sewage facilities. In the absence of public medical facilities and unemployment benefits for the more than 50% of the out-of-work favelados, disease and social problems multiply. There is prostitution and drug use, and a key feature of most *favelas* is cocaine trafficking (Guillermoprieto, 1990). And not surprisingly, rates of sexually transmitted diseases and other infections and illnesses abound.

It is within the context of these social, cultural, and economic conditions that appropriate HIV/AIDS intervention programs for women at risk need to be structured and tested. For the women in Rio's *favela* communities, individual strategies for AIDS prevention appear to be confined to limiting the number and choice of sexual partners, and condom use. The first of these options may be the easier of the two. As for the second, until Brazilian women have the power to exercise protection independently, the use of condoms will require extremely persuasive tactics. This will be quite difficult for most of the women encountered at PROVIVA, given their economic dependency and expectations of a compliant female role.