

Predicting HIV transmission risk among patients in care: The HIV Prevention with Positives Initiative

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Background

- The Health Resources and Services Administration's (HRSA) HIV "prevention with positives" initiative is a five-year project examining the effectiveness of diverse interventions delivered in clinical settings across the country.
- Interventions aim to reduce HIV transmission risk through risk assessment and behavioral counseling.

Objective

- This analysis presents factors associated with HIV sexual transmission risk (HTR) among subpopulations of HIV-infected patients in primary care.

Methods

- Individual computer-assisted interviews were conducted among HIV-infected men who have sex with men (MSM, n=1969), women (n=964) and heterosexual men (n=689) in 15 primary care clinics.
- Interviews assessed patients' sexual behavior in the last 6 months, non-injection drug use in the last 3 months, injection drug use in the last 30 days, HIV clinical status and demographic characteristics.
- HIV sexual transmission risk (HTR) was defined as unprotected vaginal or anal sex with a partner who was HIV-negative or of unknown serostatus.

Demographics by Subpopulation

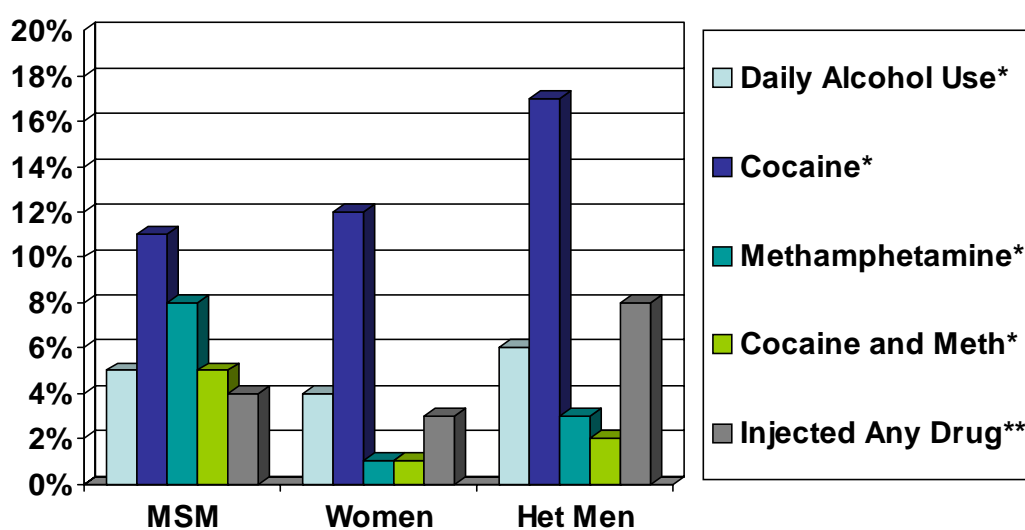
	MSM N=1959	Women N=964	Heterosexual Men N=689
African American	28%	66%	65%
White	52%	17%	17%
Age 40 or Greater	59%	58%	78%
Employed	52%	24%	29%
College Education	41%	24%	23%

Clinical Overview

- MSM were more likely to report CD4 cell counts over 200 (66%) than were women (58%) or heterosexual men (53%).
- About half of all patients reported that their most recent viral load was undetectable.
- More men (68% of MSM and 71% of heterosexual men) than women (59%) were currently on antiretroviral therapy.

Drug and Alcohol Use

Alcohol, Stimulant and Injection Drug Use



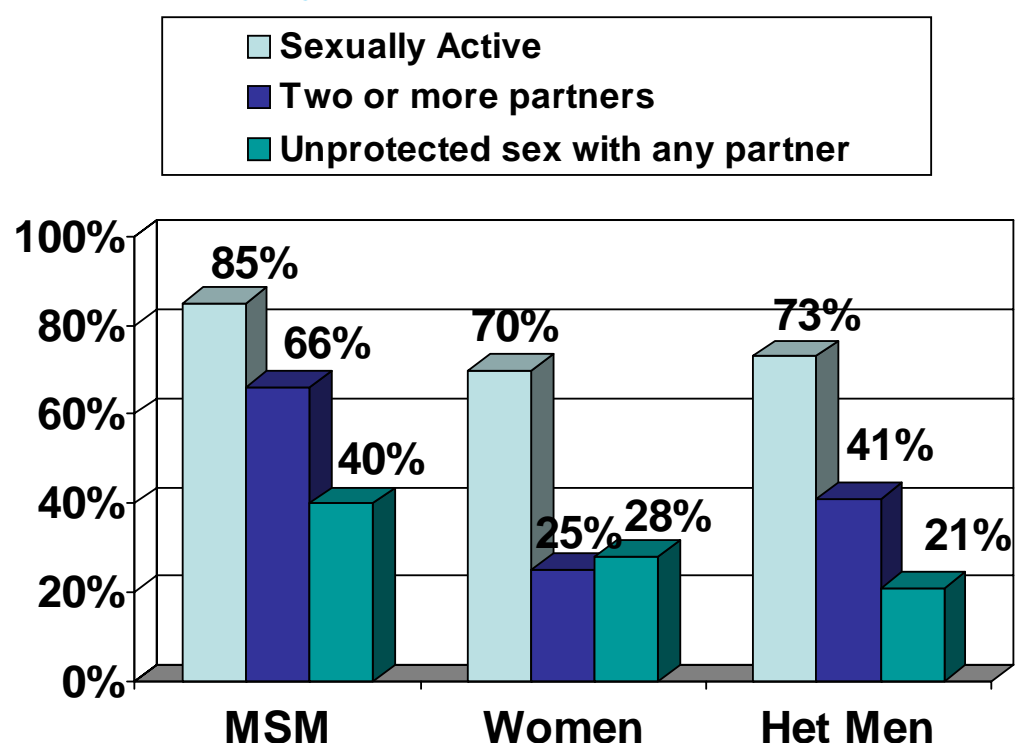
*In the last 3 months **In the last 30 days

- MSM were more likely to use methamphetamines, while women and heterosexual men were more likely to use cocaine.
- Women were less likely than heterosexual men to report alcohol (p<.001), stimulant (p=.018) or other drug use (p=.002), while MSM were more likely than heterosexual men to report both alcohol and drug use.

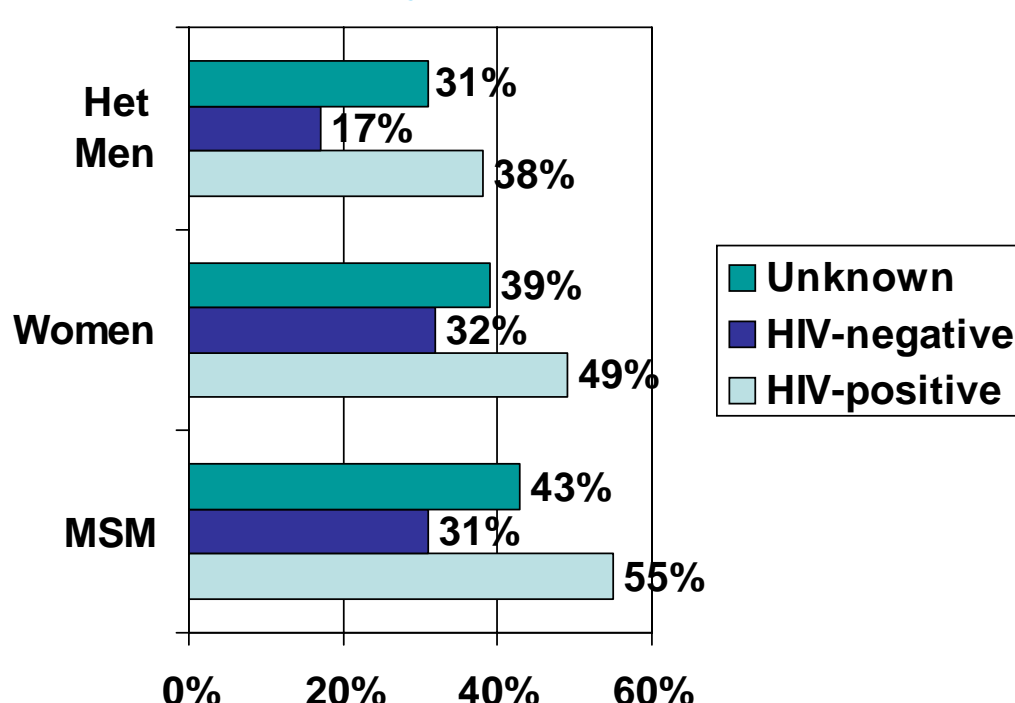
Sexual Activity Overview

- Reports of unprotected sex were high among MSM and women compared to heterosexual men regardless of the serostatus of the sexual partner (MSM: p<0.001 for HIV+ and HIV- partners and p=0.026 for unknown status partners; women: p=0.017 for HIV+, p<0.001 for HIV- and p=0.22 for unknown status partners).

Sexual Activity in the Last Six Months

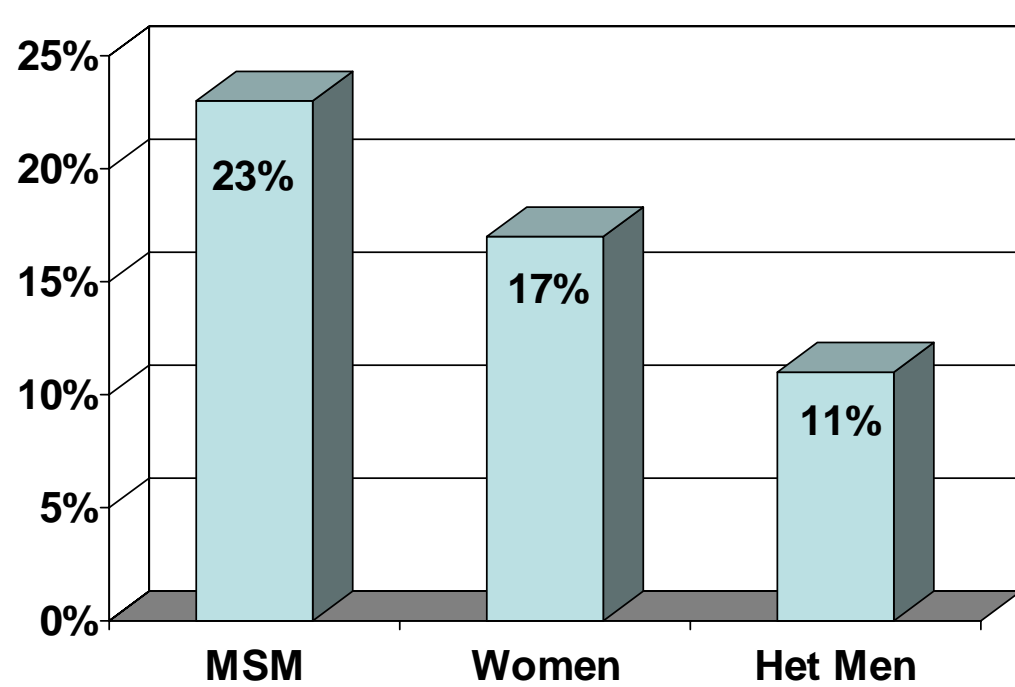


Unprotected Sex by Partner HIV Status



- HIV-infected patients report the highest frequency of sex with other positives, compared to other serostatus partners.
- MSM also appear to be using risk reduction strategies such as being the receptive partner in sex (65% vs. 59% insertive).

HIV Transmission Risk Sex in the Last 6 Months



- Overall, MSM were more than twice as likely to report any unprotected vaginal or anal sex with and HIV-negative or unknown status partner in the past 6 months compared to heterosexual men (Odds Ratio [OR]=2.41; 95% Confidence Interval [CI]=1.85, 3.13; p<0.001). Women were also more likely than heterosexual men to report HIV transmission risk sex (OR=1.63; 95% CI=1.21, 2.19; p<0.001).

Adjusted Odds Ratios for Factors Associated with HIV Sexual Transmission Risk by Subpopulation

	MSM	Women	Heterosexual Men
Stimulant Use	2.28* (1.78, 2.91)	2.25* (1.43, 3.54)	2.13* (1.21, 3.77)
Daily Alcohol Use	2.03* (1.21, 3.39)	NS	NS
Age 40 or Greater	.60* (0.48, 0.75)	.53* (0.37, 0.75)	NS
Employed	1.39* (1.11, 1.75)	NS	1.80** (1.05, 3.07)
College Education	NS	NS	2.20* (1.29, 3.76)
African American (v. White)	.74** (0.57, 0.97)	NS	NS

*p<.01 **p<.05 NS=not significant

Conclusions

- Stimulant use was associated with HTR in all three groups, although differences in other factors associated with HTR suggest that the context of use is different across subpopulations.
- In this sample, young, gay men who used drugs and alcohol were at increased risk of transmitting HIV as were heterosexuals using stimulants (primarily cocaine).
- Clinical settings offer opportunities for responding to emerging HIV prevention challenges.
- HIV prevention interventions in clinical settings—prevention with positives—may offer potential for responding to the specific needs of patients at risk of transmitting by integrating behavioral risk assessment and tailored counseling into clinical HIV care.

Acknowledgments

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