
Methamphetamine and HIV Risk Among Men Who Have Sex with Men

Reports of increased use of the stimulant drug methamphetamine (also known as meth, crystal, ice, Tina, crank, speed) have heightened public health concerns.^{1 & 2} Methamphetamine use is associated with sexual risk behavior for HIV and sexually transmitted diseases (STDs).³⁻⁹ Use of methamphetamine may be more frequent among men who have sex with men (MSM) than it is among other populations vulnerable to HIV.¹⁰ The rising popularity of methamphetamine use by MSM may correspond to growing rates of HIV and STDs.^{3, 11-14} Unprotected anal intercourse has been associated with methamphetamine use by MSM.^{12, 15-19} A report from New York City calculates the likelihood of HIV seroconversion from unprotected anal intercourse for MSM reporting methamphetamine use is three times greater than MSM reporting nonuse.²⁰ Methamphetamine use has been related to the sexual risk behavior of HIV-positive MSM.^{3, 15 & 16, 21} Methamphetamine users have been shown to report more sex partners than nonusers.^{3, 11 & 12} There is also HIV risk associated with sharing injection equipment when methamphetamine is used intravenously.²²⁻²⁴

A direct causal effect of methamphetamine use on sexual behavior, including sexual risk behavior, has not been absolutely established. However, methamphetamine use and sexual behavior have been associated in a number of studies. Methamphetamine use has been reported to increase sexual capacity and pleasure.^{4, 25 & 26} It may also affect judgment and personality in ways that increase sexual risk behavior. Individuals may feel energetic^{4 & 27} and less inhibited.^{25, 28 & 29} Individuals may “self-medicate” with methamphetamine to cope with psychological issues such as low self-esteem, isolation, and depression.^{27 & 31} Gay men have reported methamphetamine use to facilitate socializing in gay male communities.³² Methamphetamine use has been associated with situations that may facilitate multiple sexual partners, such as circuit parties, commercial sex venues, Internet partnering, private sex parties, and vacation-related sex.^{18, 29, 30, 32-37} “Party and play” or “PnP” is a reference familiar to many gay men

to combining methamphetamine use with sex for recreational purposes.²⁷ Viagra use, particularly for insertive anal intercourse, has also been correlated with methamphetamine use.^{9 & 15} Viagra supports endurance in extended sexual encounters and mitigates erectile difficulties that may be caused by methamphetamine use.^{9, 29, 38-40} Methamphetamine use has also been associated with use of other substances like Ecstasy (“X” or “E”), ketamine (“K” or “Special K”), gamma hydroxyl butyrate (“GHB” or “G”), cocaine, and alcohol — substances which are also associated with “partying.”^{6, 9, 41} Increases in the use of any these substances, and combinations of them, may lead to riskier sex.

There appear to be age associations with methamphetamine use among MSM. Younger MSM use methamphetamine more frequently than older MSM.^{30 & 42} Methamphetamine use is reported more frequently among white and Latino MSM than it is among African American MSM.^{41 & 42} However, there are some indications that rates of methamphetamine use are becoming similar across MSM racial and ethnic groups. Extensive methamphetamine use has been reported in some transgender communities.³²

There is no specified and reimbursable pharmacological treatment for methamphetamine addiction. Psychological treatment like cognitive behavioral therapy and peer-based treatment like “Twelve Step” recovery support groups such as Crystal Users Anonymous and Narcotics Anonymous are the most available treatment. The Alcoholics Anonymous model programs, which are community initiated and sustained “self-help” programs, outnumber support groups provided by public and private health funds. A recent study of various treatments for methamphetamine abusers found that all treatments led to decreases in use and sexual risk.⁴³

Several of the effective HIV prevention interventions being disseminated by the CDC could be utilized to address methamphetamine use in gay communities and MSM social networks. For example, the “Popular Opinion Leader” intervention

could be adapted to disseminate a counter-methamphetamine use norm.⁴⁴ Disseminating this norm in a community where methamphetamine use is emerging may be consistent with the Popular Opinion Leader model. Correlating methamphetamine use with behavioral risk for sexually transmitted infections can be integrated into the risk elimination and prevention strategies employed by the “Mpowerment” and the “Many Men, Many Voices” interventions.⁴⁵ Neither of these two interventions could be adapted to focus only on the prevention of methamphetamine use because they are designed to target a broader range of influencing factors and associated behavioral risks. Narrowing these interventions to focus only on methamphetamine would compromise fidelity to the intervention such that no expectation of meeting their intended effects or outcomes would remain.

Concerned public health and community groups are requesting and building resources to address the problem of methamphetamine use among MSM.⁴⁶ These requests indicate awareness that methamphetamine abuse by MSM is related to the epidemics of HIV and STDs, as well as to mental health, stigma, and substance abuse issues.^{25, 47 & 48} Overlapping health risks among MSM suggests a need for integrated responses. Support for gay health issues remains underdeveloped. Existing treatment vacancies are limited. Public and private partnerships are needed to increase infrastructure and response across the full range of social institutions and contexts that affect quality of life and health-related behaviors of MSM.

Many public and private partnerships have formed to respond to the epidemic of methamphetamine use among MSM. These primarily include the mobilization of resources, including the media and community awareness and action campaigns.

Fact sheets and publications on methamphetamine use that can be downloaded

National Institutes on Drug Abuse (NIDA)

www.drugabuse.gov/DrugPages/Methamphetamine.html

Center for AIDS Prevention Studies - Fact Sheets

www.caps.ucsf.edu/FSindex.html

Prevention, treatment, and information organizations and resources

Crystal Meth Anonymous

www.crystalmeth.org/home/index.php

tweaker.org

www.tweaker.org/home/home.php4

GMHC, Inc. “Crystal: What you need to know”

www.gmhc.org/programs/crystal.html

ENDNOTES:

1. National Alliance of State & Territorial AIDS Directors (NASTAD), and National Coalition of STD Directors (NCST). *NASTAD and NCSD Issue Eight State Action Plan - Mobilization of Public Health Leadership Necessary to Combat HIV Risk Among Gay Men and MSM Who Use Crystal Methamphetamine*. Press release, November 16, 2004.
2. New York City Department of Mental Health and Mental Hygiene. *Health Bulletin: Meth and HIV*. Health and Mental Hygiene News. 2004; 3(3):
3. Molitor, F, Traux, S, Ruiz, J, and Sun, R. *Association of methamphetamine use during sex with risky sexual behaviors and HIV infection among non-injection drug users*. Western Journal of Medicine. 1998; 168: 93-97.
4. Semple, SJ, Patterson, TL, Grant, I. *The context of sexual risk behavior among heterosexual methamphetamine users*. Addictive Behavior. 2004;29:807-810.
5. Koblin, BA, Chesney, MA, Husnik, MS, Bozeman, S, Celum, CL, Buchbinder, S, Mayer, K, McKirnan, D, Judson, FN, Huang, Y, Coates, TJ, and the EXPLORE Study Team. *High-Risk Behaviors Among Men Who Have Sex With Men in 6 US cities: Baseline Data from the Explore Study*. American Journal of Public Health. 2003;93(6):926-932.
6. Colfax, G, Vittinghoff, E, Husnik, MJ, McKirnan, D., Buchbinder, S, Koblin, B, Celum, C, Chesney, M, Huang, YL, Mayer, K, Bozeman, S, Judson, FN, Bryant, KJ, and Coates, TJ. *Substance use and sexual risk: A participant- and episode-level analysis among a cohort of men who have sex with men*. American Journal of Epidemiology. 2004; 159(10): 1002-1012.
7. Newmayer, JA. *Patterns and trends of drug use in the San Francisco Bay Area*. Journal of Psychoactive Drugs. 2003; SARC Supplement: 127-132.
8. Reback, CJ, Larkins S, Shoptaw S. *Changes in the meaning of sexual risk behaviors among gay and bisexual male methamphetamine abusers before and after drug treatment*. *AIDS Behav*, 2004; 8: 87-98.
9. Halkitis, PN, Parsons, JT, and Wilton, L. *An exploratory study of contextual and situational factors related to methamphetamine use among gay and bisexual men in New York City*. Journal of Drug Issues. 2003; 33(2): 413-432
10. Stall, R. *Research on Meth Use and Sexual Risk Behavior*. Presentation at the: Consultation on Methamphetamine Use and Sexual Risk Behavior for HIV/STD Transmission. Atlanta, GA. January, 2005.
11. Mitchell, SJ, Wong, W, Kent, CK, Chaw, JK, and Klausner, JD. *Methamphetamine Use, Sexual Behavior, and Sexually Transmitted Diseases Among Men Who Have Sex with Men Seen in an STD Clinic, San Francisco 2002–2003*. Presentation to the: National STD Prevention Conference. Philadelphia, PA. 2004, March.

12. Wong, W, Chaw, J, Kent, C, Alpers, L, and Klausner, J. *Risk Factors for Early Syphilis Among Men Who Have Sex With Men Seen in an STD Clinic, San Francisco 2002-2003*. Presentation to the: National STD Prevention Conference. Philadelphia, PA. 2004, March.
13. CDC. *Outbreak of syphilis among men who have sex with men – Southern California, 2000*. MMWR, 2000;50: 117-120.
14. Golden, M. *Association of methamphetamine use with HIV among MSM in an STD clinic*. Presentation to the International Society for Sexually Transmitted Disease Research. July, 2003; Ottawa, Canada.
15. Mansergh, G, Shouse, RL, Marks, G, Rader, M, Buchbinde, S, and Colfax GN. *Crystal Use, Viagra Use, and Specific Sexual Risk Behaviors of Men who have Sex with Men (MSM) during a Recent Anal Sex Encounter*. Presentation to the: National STD Prevention Conference, Philadelphia, PA. 2004, March.
16. Purcell DW, Moss S, Remien RH, Parsons JT, Woods WJ, & the SUMIT Team. *Illicit substance use and sexual risk behavior among HIV-seropositive gay and bisexual men*. AIDS In press.
17. Mitchell, SJ, Wong, W, Kent, CK, Chaw, JK, and Klausner, JD. *Methamphetamine Use, Sexual Behavior, and Sexually Transmitted Diseases Among Men Who Have Sex with Men Seen in an STD Clinic, San Francisco 2002–2003*. Presentation to the: National STD Prevention Conference. Philadelphia, PA. 2004, March.
18. Hirshfield S, Remien RH, Humberstone, M, Walavalkar, I, and Chiasson, MA. *Substance use and high-risk sex among men who have sex with men: a national online study in the USA*. AIDS Care. 2004; 16(8): 1036-1047.
19. Rusch, M, Lampinen, TM, Schilder, A, and Hogg, RS. *Unprotected anal intercourse associated with recreational drug use among young men who have sex with men is dependent on partner type and intercourse role*. Sexually Transmitted Diseases. 2004; 31(8): 492-498.
20. Halkitis, PN, Green, KA, and Carragher, DJ. *Methamphetamine use, sexual behavior, and HIV seroconversion*. In press.
21. Kingston, S, Thiede, H, Goldbaum, G, and Golden, M. *Methamphetamine use and HIV among Seattle area MSM*. Poster presentation at the Consultation on Methamphetamine Use and Sexual Risk Behavior for HIV/STD Transmission. January, 2005. Atlanta, GA.
22. Blumenthal, RN, Kral, AH, Gee, L, Lorvick, J, Moore, L, Seal, K, and Edlin, BR. *Trends in HIV seroprevalence and risk among gay and bisexual men who inject drugs in San Francisco, 1988 to 2000*. Journal of Acquired Immune Deficiency Syndromes. 2001; 28(3): 264-269.
23. Semple, SJ, Patterson, TL, and Grant, I. *A comparison of injection and non-injection methamphetamine-using HIV positive men who have sex with men*. Drugs and Alcohol Dependence. 2004; 76(2):203-121.
24. National Institutes of Drug Abuse. *Infofacts: Methamphetamine*. June, 2004. National Institutes of Health, US Department of Health & Human Services. <http://www.nida.nih.gov/Infofax/methamphetamine.html>
25. Halkitis, PN, Parsons, JT, and Stirratt, MJ. *A double epidemic: Crystal methamphetamine drug use in relation to HIV transmission among gay men*. Journal of Homosexuality. 2001; 41(2):17-35.
26. Paul, JP, Stall, R, and Davis, F. *Sexual risk for HIV transmission among gay and bisexual men in substance abuse treatment*. AIDS Education and Prevention. 1993; 5(1): 11-24.
27. Semple, SJ, Patterson, TL, and Grant, I. *Motivations associated with methamphetamine users among HIV+ men who have sex with men*. Journal of Substance Abuse Treatment. 2002; 22(3): 149-156.
28. Urbina, A and Jones, K. *Crystal methamphetamine, its analogues, and HIV infection: Medical and psychiatric aspects of a new epidemic*. Clinical Infectious Diseases. 2004;38:890-894.
29. Colfax, GN, Mansergh, G, Guzman, R, Marks, G, Radar, M, Buchbinder, D. *Drug use and sexual risk behavior among gay and bisexual men who attend circuit parties: A venue-based comparison*. Journal of Acquired Immune Deficiency Syndrome. 2001; 28(4):373-379.
30. Gorman, EM and Carroll, RT. *Substance abuse and HIV: Considerations with regards to methamphetamine and other recreational drugs for nursing practice and research*. Journal of the Association of Nurses in AIDS Care. 2000; 11: 51-62.
31. Shoptaw, S, Peck, J, Reback, CJ, and Rotheram-Fuller, E. *Psychiatric and substance dependence comorbidities, sexually transmitted diseases, and risk behaviors among methamphetamine-dependent gay and bisexual men seeking outpatient drug abuse treatment*. Journal of Psychoactive Drugs. 2003; 35 (Suppl.1): 161-168
32. Green, AI “chem friendly”: *The institutional basis of “club drug” use in a sample of urban gay men*. Deviant Behavior. 2003; 24:427-447
33. Mansergh, G, Colfax, GM, Marks, G, Rader, M, Guzman, R, and Buchbinder, S. *The Circuit Party Men’s Health Survey: Findings and Implications for Gay and Bisexual Men*. American Journal of Public Health. 2001; 91(6):953-958.
34. Mattison, AM, Ross, MW, Wolfson, DE, and HNCR Group. *“Circuit Party Attendance, Club Drug Use, and Unsafe Sex in Gay Men*. Journal of Substance Abuse. 2001; 13:1199-126.
35. Whittier, D. K., St. Lawrence, J. S., & S. Seeley. *Sexual risk behavior of men who have sex with men: Comparison of behavior at home and at a gay resort*. Archives of Sexual Behavior. 2005; 34(1):95-102.
36. Lee, SJ, Galanter, M, Dermatis, H, and McDowel, D. *Circuits parties and patters of drug use in a subset of gay men*. Journal of Addictive Diseases. 2003; 22(4): 47-60.

-
37. Benotsch, EG, Kalichman, S, and Cage, M. *Men who have met sex with men via the Internet: Prevalence, predictors, and implications for HIV prevention*. Archives of Sexual Behavior. 2002; 32(2): 177-183.
 38. Sherr L, Bolding G, Maguire M, and Elford J. *Viagra use and sexual risk behaviour among gay men in London* [Letter]. AIDS. 2000; 14:2051–2053.
 39. Chu PL, McFarland W, Gibson S, et al. *Viagra use in a community-recruited sample of men who have sex with men, San Francisco*. Journal of Acquired Immune Deficiency Syndrome. 2003; 33:191–193.
 40. Kim AA, Kent CK, and Klausner JD. *Increased risk of HIV and sexually transmitted disease transmission among gay or bisexual men who use Viagra, San Francisco 2000-2001* [Letter]. AIDS. 2002; 16:1425–1428.
 41. Reback, CJ and Grella, CE. *HIV risk behaviors of gay and bisexual male methamphetamine users contacted through street outreach*. Journal of Drug Issues. 1999. 29, 155-166.
 42. Mansergh, G. *Association of meth use and sexual risk behavior among MSM*. Presentation at the: Consultation on Methamphetamine Use and Sexual Risk Behavior for HIV/STD Transmission. Atlanta, GA. January, 2005.
 43. Shoptaw S, Reback CJ, Peck JA, Yang X, Rotheram-Fuller E, Larkins S, Veniegas RC, Freese TE, Hucks-Ortiz C. *Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men*. Drug and Alcohol Dependence. 2005,78(2):125-134.
 44. See “Popular Opinion Leader” at www.effectiveinterventions.org
 45. See “Mpowerment” and “Many Men, Many Voices” at www.effectiveinterventions.org
 46. Task Force on Crystal Meth, Syphilis and HIV. *Confronting Crystal Methamphetamine Use In New York City, Public Policy Recommendations*. New York City Department of Mental Health and Mental Hygiene. Public Health Alert. July 2004.
 47. Bull, SS, Piper, P, and Reitmeijer, C. *Men who have sex with men and also inject drugs- Profiles of risk related to the synergy of sex and drug injection behaviors*. Journal of Homosexuality. 2002; 42(3): 31-51.
 48. Stall, R, Mills, TC, John Williamson, J, Hart, T, Greenwood, G, Paul, J, Pollack, L, Binson, D, Osmond, D, and Catania, JA. *Association of co-occurring psychosocial health problems and increased vulnerability to HIV/AIDS among urban men who have sex with men*. American Journal of Public Health. 2003; 93: 939 - 942.

The factsheet was prepared by David Whittier, Ph.D. of the Centers for Disease Control and Prevention with the assistance of the Academy for Educational Development.