Consistency and Change in Club Drug Use by Sexual Minority Men in New York City, 2002 to 2007

Abstract (Summary)

We used repeated cross-sectional data from intercept surveys conducted annually at lesbian, gay, and bisexual community events to investigate trends in club drug use in sexual minority men (N=6489) in New York City from 2002 to 2007. Recent use of ecstasy, ketamine, and γ-hydroxybutyrate decreased significantly. Crystal methamphetamine use initially increased but then decreased. Use of cocaine and amyl nitrates remained consistent. A greater number of HIV-positive (vs HIV-negative) men reported recent drug use across years. Downward trends in drug use in this population mirror trends in other groups. [PUBLICATION ABSTRACT]

Full Text

(1977 words)
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[Headnote]
We used repeated cross-sectional data from intercept surveys conducted annually at lesbian, gay, and bisexual community events to investigate trends in club drug use in sexual minority men (N=6489) in New York City from 2002 to 2007. Recent use of ecstasy, ketamine, and γ-hydroxybutyrate decreased significantly. Crystal methamphetamine use initially increased but then decreased. Use of cocaine and amyl nitrates remained consistent. A greater number of HIV-positive (vs HIV-negative) men reported recent drug use across years. Downward trends in drug use in this population mirror trends in other groups. (Am J Public Health. 2010;100:1892-1895. doi: 10.2105/AJPH.2009.175232)

"Club drugs" are illicit substances consumed in social or party situations1 to increase social disinhibition and heighten sensual and sexual experiences.2,3 This category typically includes ecstasy (3,4 methylenedioxymethamphetamine), γ-hydroxybutyrate (GHB), and ketamine,4 although recent reports also have included cocaine5 and crystal methamphetamine.6

Concern about club drug use has increased because of consistent associations with unprotected sexual intercourse.7-9 Given the high rates of use4 among men who have sex with men, most club drug research has focused on this population-and on identified gay and bisexual men specifically.10,11 Published prevalence estimates are quite variable, ranging, for example, from 6% to 65% for crystal methamphetamine9,12 and from 7% to 93% for ecstasy.13,14 However, epidemiological trends remain unknown, and most studies contributing prevalence data have 1 or more significant limitations, including use of cross-sectional designs or small sample sizes, recruitment solely at bars or circuit parties, or investigation of some but not all club drugs.
We used a repeated cross-sectional design to investigate trends in the prevalence of recent club drug use (and amyl nitrates or "poppers") between 2002 and 2007 among urban sexual minority men. Given consistent differences in rates of use between HIV-positive and HIV-negative men, we reported differences by HIV serostatus.

METHODS

Sample characteristics (N=6489) are presented in Table 1. Cross-sectional intercept surveys were conducted annually as part of the Sex and Love Project at 2 large lesbian, gay, and bisexual community events in New York City in the autumn of 2002 to 2007, and identical recruitment and survey methods were used. Measures included questionnaires for demographics (age, race/ethnicity, HIV status) and substance use. Participants were given a list of substances (crystal methamphetamine, cocaine, ecstasy, ketamine, GHB, poppers) and indicated ("yes" or "no") which they had used in the past 90 days. The category "any drug use" reflected endorsement of any drug except poppers. "Polydrug use" comprised recent use of 2 or more drugs by the same participant (excluding poppers).

We used the c2 test to assess differences across years in the proportion of respondents endorsing recent drug use. Given the volume of tests performed, we evaluated findings with a Bonferroni adjustment (P<.008). No sexual identity differences emerged on key variables, so all participants were included in all analyses. Men reporting an unknown HIV status were considered HIV negative in serostatus analyses.

RESULTS

In the aggregated sample, we observed significant decreases in use for all categories except cocaine and poppers (see Table 2). Use of crystal methamphetamine increased and then decreased significantly.

For HIV-negative men, rates of use decreased significantly from 2002 to 2007 for almost all substances. One significant increase was found; crystal methamphetamine use increased from 2002 to 2003 (3.2%) but decreased significantly in 2004 (4.0%) and 2005 (2.4%). No significant changes were observed in use of cocaine or poppers.

For HIV-positive men, the proportion of the sample endorsing recent use of most substances was unchanged. Crystal methamphetamine use increased significantly from 2002 to 2003 (11.5%) and then decreased significantly from 2004 to 2005 (9.5%). For cocaine, a significant decrease from 2003 to 2004 (12.8%) was followed by a marginally significant increase from 2004 to 2005 (7.3%) and a decrease from 2006 to 2007 (8.3%).

After we collapsed the data across years, HIV-positive men were more likely, compared with HIV-negative men, to report the use of drugs in all categories, including crystal methamphetamine (15.4% vs 6.5%), cocaine (15.8% vs 10.8%), ecstasy (11.5% vs 8.9%),
ketamine (7.4% vs 4.1%), GHB (7.0% vs 3.0%), poppers (38.9% vs 21.3%), as well as any club drug (28.0% vs 17.7%) and polydrug use (13.4% vs 8.1%).

DISCUSSION

For the combined sample, and for each of the HIV status subgroups, rates of substance use appeared to peak in 2002 to 2003 and decline thereafter. These trends in use appear consistent with decreased drug use among other populations, including, for example, US adolescents.20 Consistently higher proportions of HIV-positive men reported drug use compared with that of HIV-negative men, replicating previous findings.21,22

Especially interesting were the changes in use of cocaine and crystal methamphetamine. Some reports have noted cocaine's resurgence in popularity in New York City, as well as anecdotal evidence that chronic stimulant users turned to cocaine after ending crystal methamphetamine use.5 Because of a high-visibility anti-crystal methamphetamine campaign, crystal methamphetamine use may have genuinely decreased or may have become more stigmatized, and, as a result, our participants may have minimized their true crystal methamphetamine use. Our data provide some support for the hypothesis that some stimulant users have little allegiance to any one particular drug but will, in fact, use whichever is most readily available—given the pattern and timing of changes in crystal methamphetamine and cocaine use. However, only longitudinal modeling of within-person changes could adequately address questions about these potentially mutually interactive trends.23

The most significant limitation to this analysis involved variables that were unmeasured, including motivations for substance use—especially for HIV-positive men versus HIV-negative men—and the potential for some third variable to account for the observed trends, including sampling bias, policy changes, cohort effects, and cultural shifts. Our sample may be skewed toward more men who have disclosed their gay identity and who might have different patterns of substance use from those who have not identified themselves as gay or bisexual men who have sex with men.

However, significant strengths of this study over previous reports included enhanced validity (measurement of all club drugs) and generalizability (recruitment at community events rather than at bars or circuit parties). Few demographic differences were observed across samples (data not reported), and the procedures and recruitment venues remained identical, lending support to the use of repeated cross-sectional methods for this analysis.

A greater number of HIV-positive men seem to be using club drugs compared with that of HIV-negative men, although use appears to have peaked in 2002 to 2003 and decreased thereafter. The use of the stimulants cocaine and crystal methamphetamine, especially, should continue to be monitored in this population.

[Reference]
References


[Author Affiliation]
David W. Pantalone, PhD, David S. Bimbi, PhD, Catherine A. Holder, BA, Sarit A. Golub, PhD, MPH, and Jeffrey T. Parsons, PhD

[Author Affiliation]
About the Authors
At the time the research was completed, all authors were with the Center for HIV/AIDS Educational Studies and Training, Department of Psychology, Hunter College, City University of New York, New York.

Correspondence should be sent to Jeffrey T. Parsons, PhD, Department of Psychology, Hunter College, City University of New York, 695 Park Ave, Room 611N, New York, NY 10065 (e-mail: jeffrey.parsons@hunter.cuny.edu). Reprints can be ordered at http://www.ajph.org by clicking on the "Reprints/Eprints" link.

This article was accepted February 12, 2010.

Contributors
D.W. Pantalone was the lead author of the brief. D. S. Bimbi was co-investigator of the studies. D. S. Bimbi and S. A. Golub performed the statistical analyses and produced the tables. C.A. Holder assisted with the literature review, references, and formatting of the manuscript. J. T. Parsons was the principal investigator. All authors contributed to the conceptualization of the brief, interpretation of findings, and editing of the final manuscript.

Acknowledgments
The Sex and Love Project was supported by the Hunter College Center for HIV/AIDS Educational Studies and Training, under the direction of J.T. Parsons, PhD.

The authors acknowledge the contributions of other members of the various Sex and Love Research Teams from 2002 to 2007 and the Drag Initiative to Vanquish AIDS.

Human Participant Protection
All study procedures were approved by the institutional review board for the protection of human research participants of Hunter College, City University of New York.

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- References (23)

Indexing (document details)

Subjects: Human immunodeficiency virus--HIV, Drug use, Men
MeSH subjects: Adolescent, Adult, African Americans, Aged, Aged, 80 & over, Asian Americans, Cross-Sectional Studies, HIV Infections -- complications, HIV Infections -- epidemiology (major), HIV Infections -- ethnology, Health Surveys, Hispanic Americans, Humans, Incidence, Male, Middle Aged, New York City -- epidemiology, Street Drugs (major), Substance-Related Disorders -- complications, Substance-Related Disorders -- epidemiology (major), Substance-Related Disorders -- ethnology, Young Adult

Author(s): David W Pantalone, David S Bimbi, Catherine A Holder, Sarit A Golub, Jeffrey T Parsons

Author Affiliation: David W. Pantalone, PhD, David S. Bimbi, PhD, Catherine A. Holder, BA, Sarit A. Golub, PhD, MPH, and Jeffrey T. Parsons, PhD

About the Authors
At the time the research was completed, all authors were with the Center for HIV/AIDS Educational Studies and Training, Department of Psychology, Hunter College, City University of New York, New York. Correspondence should be sent to Jeffrey T. Parsons, PhD, Department of Psychology, Hunter College, City University of New York, 695 Park Ave, Room 611N, New York, NY 10065 (e-mail: jeffrey.parsons@hunter.cuny.edu). Reprints can be ordered at http://www.ajph.org by clicking on the "Reprints/Eprints" link.

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Document features: Tables, References

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