

“Crystal!”:

**A study of use and sexual risk
among men who have sex with
men (MSM) who are poly-drug
users in Toronto**

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Part I:
Background Information

Introduction

This report describes an analysis of the data collected as part of the *Desired Effects* study, a multiphase study of drug use among men who have sex with men (MSM). This specific analysis was undertaken on data collected from surveys that included questions on drug use and sexual behaviour to develop a greater understanding of the use of crystal methamphetamine (crystal) in the gay community. Specifically, this analysis endeavoured to develop an understanding of the use of crystal in relation to sexual risk behaviour in this community.

This report provides an overview of the study's objectives and methods, along with a description of what is known about the context of crystal use within the gay community, the background to the current apparent increase in use, and a thumbnail sketch of the scope of published literature on this issue. Results of the analysis are presented along with a brief discussion and comment on the findings.

Background

This report does not provide an exhaustive review of the literature surrounding the use of crystal and sexual risk, but provides selected background, primarily Canadian and American, to assist in contextualizing the link between gay communities, crystal use, and other drug use.

Crystal is a potent synthetic stimulant drug that affects the central nervous system. It is sometimes referred to as speed, glass, crank, ice, or Tina. Crystal is similar to amphetamine both in chemical structure and in some effects on the body (Ringrose & Kropp, 2005). A crystal user may experience feelings of alertness, euphoria, and an increased sense of well-being (Ringrose & Kropp, 2005).

Emerging literature and anecdotal accounts suggest that the increased use of crystal is present in a number of gay communities internationally, and that its use is an important risk factor for HIV infection. It is increasingly acknowledged that it is important to understand the underlying context of drug use and sex. There continue to be considerable assumptions made about drug and alcohol use by men who have sex with men (MSM). While studies of MSM and drug use have determined that the relationship between sexual behaviour and drug use is correlated, there remains little understanding of patterns and contexts of drug use among MSM (Green & Halkitis, 2006; Rusch, Lampinen, Schilder, & Hogg, 2004). Like other communities, MSM are clearly using alcohol and drugs to various degrees. With regard to the effect HIV/AIDS has had on this particular community, a comprehensive and nuanced understanding of drug use among MSM and its relationship to sexual risk behaviour must be developed so meaningful HIV prevention and other harm-reduction programs can be created.

Several studies of crystal within gay communities are in progress, and some findings are awaiting publication so that there are limitations to the current published information available on this topic. Much of the research to date has focused on use of crystal within

the context of the gay male circuit party scene in the US, while very little has been done in Canada (Research Group on Drug Use [RGDU], 2004; Rusch et al., 2004; Schilder, Lampinen, Miller, & Hogg, 2005).

Canadian and American Situations

Data on the prevalence of crystal use across Canada, both in the general population and in the specific population of interest in this study, have not yet been collected. However, data on the use of amphetamines have been estimated. The Canadian Addiction Survey (CAS) is a national randomized survey on alcohol and other drug use. In 2005, the CAS reported that the lifetime use of speed or amphetamines for the Canadian population (ages 15 or older) was 6.4%, with men twice as likely as women to report use of speed or amphetamines (8.7% and 4.1% respectively) (Canadian Centre on Substance Abuse [CCSA], 2005). Further, data collected during previous CASs over the past decade in Canada (1994–2004) have showed that the use of speed or amphetamines increased threefold from 2.1% to 6.4% (CCSA, 2005).

In 2004 the report of the Research Group on Drug Use noted the increased popularity of crystal use in Toronto (RGDU, 2004). This report also noted that poly-drug use is especially popular in the gay club scene (RGDU, 2004). In 2005, various articles in the *Toronto Star* raised alarm regarding the possible link between crystal use and increasing HIV rates in Toronto (Chung, 2005a; Chung, 2005b). These articles focused on the perceived lack of response by public health officials and community organizations on these issues in Toronto, in comparison to the response in various US jurisdictions (Chung, 2005a; Chung, 2005b). In Vancouver, increases in use of crystal among street youth have been reported (Wood, Stoltz, Montaner, & Kerr, 2006). Recent preliminary research shows that high school students in British Columbia who self-identify as gay/lesbian or bisexual are at increased risk for reported use of crystal and other party drugs, such as ecstasy and ketamine (Lampinen, McGhee, & Martin, 2006).

In 2003, an estimated 5.2% of the US population had used methamphetamine in their lifetime; and 8.8% of the US population aged 12 or older prevalence had used stimulants in their lifetime (Substance Abuse and Mental Health Services Administration [SAMHSA], 2005). Patterns of use across different regions in the US have been noted. In 2003, a large study of MSM across the US found that amphetamine use was more frequent in West Coast cities (Los Angeles, San Francisco, and Seattle) than in the East or South; this study did note a growing concern that amphetamine use in New York could increase (Thiede et al., 2003). Other reports show an increase within the past 10 years in the popularity of crystal among gay/bisexual men in New York and other East Coast jurisdictions of the US (Halkitis, Parsons, & Stirratt, 2001; Halkitis, Parsons, & Wilton, 2003).

Published Scientific Literature

A growing body of published scientific literature looks at the topic of crystal use among MSM. Here, we briefly mention the primary challenges inherent in research on this topic

and provide a historical perspective on this research and summaries of current findings. Discussions pertinent to future research on this topic also are included.

An extensive body of literature examines the relationship between substance use (including alcohol) and sexual risk-taking with respect to HIV. Over the past two decades the understanding of the relationship between sexual behaviour and drug use has advanced, yet the perceived association between alcohol and/or drug use and the practice of unsafe sexual behaviour remains unclear. It is evident that in the research on this topic no clear causal relationship exists, and the relationship is complex.

Historical Perspective on Research on Drug Use among MSM

There has been a consistent belief that drug use is an issue among MSM. This belief historically may be rooted in the disciplines of addictions and behavioural studies. For example, studies have suggested that there are elevated rates of alcohol use among MSM compared to the general population of men (Skinner, 1994; Ungvarski & Grossman, 1999; Winters, Remafedi & Chan, 1996). However, such comparisons must be made with caution (Myers et al., 1992). As noted by Stall and Purcell (2000) these studies present significant methodological problems; the main one is that the samples of gay men were primarily or exclusively recruited from bars.

In a carefully considered review of research on substance use among MSM and HIV, Stall and Purcell (2000) note that MSM use a variety of substances and often do not have one particular substance that they consider their primary drug of choice. This poly-substance use among MSM frequently has been overlooked in the literature, and therefore patterns of substance use among MSM remain unclear (Stall & Purcell, 2000). This factor, along with others (the sometimes hidden nature of both MSM and drug using populations), poses challenges for research on drug use among MSM.

Current Research on Crystal and MSM Communities

A summary of literature on the topic of crystal and MSM was compiled by Ringrose and Kropp; it included the results from 31 articles published between 1996 and 2005 (Ringrose & Kropp, 2005). This summary examined the literature in terms of: the social contexts of and reported reasons for crystal use; crystal use associated with risky sex and transmission of sexually transmitted infections (STI) among MSM; additional considerations for HIV positive crystal use among MSM; and crystal related interventions. The findings from this summary are included below. Several reports on crystal use among MSM were not included in the Ringrose and Kropp review; new information and insights from these reports are provided in this monograph where appropriate.

Social Contexts of and Reported Reasons for Crystal Use

Ringrose and Kropp report that, in the articles they summarized, it was evident the reasons given for initiation of crystal use differed from the reasons given for current use (Ringrose & Kropp, 2005). In addition, they found the stated reasons for all reported crystal use were often associated with sexual practices (Ringrose & Kropp, 2005).

Slavin (2004) conducted an in-depth qualitative study, which looked at crystal use among gay men in Sydney, Australia. Slavin spent a considerable amount of time with several gay men who were experienced party-drug users, who used crystal and whose preferred mode of administration of crystal was through injection. His research detailed social and cultural characteristics of crystal use and associated practices among gay men in Sydney, and delved into the cultural boundaries and social exchange explained through crystal use among these men (Slavin, 2004). This research explored key social and cultural dimensions of injection crystal use, including how boundaries are deployed by users to exercise control over themselves and the drugs they use. For example, a user may classify himself as a recreational user and not a junkie in order to distinguish his perceived “controlled” crystal use from the drug use of people who are unable to exert such control. This is an example of how the concept of boundaries is practised on an individual level, but also has shared meanings and significance, and also shows that these concepts can be culturally reproduced. Slavin’s findings also highlight the idea that drug-related harms can be difficult to determine. For example, questions relating to drug use and its promotion of unsafe sex are not straightforward; however, in this author’s view, the emotional instability during the comedown period that follows the drug-induced high produces many of the problems for users (Slavin, 2004).

Schilder, Lampinen, Miller, and Hogg (2005) conducted life-history interviews with 12 HIV-positive gay men and 12 age-matched controls in Vancouver so they could qualitatively examine personal experiences, social contexts, and consequences of both crystal and ecstasy use. Their findings showed that there are differences in reported experiences, contexts, and consequences between ecstasy and crystal use among this group (Schilder et al., 2005). While use of both ecstasy and crystal were described by participants as augmenting socializing in gay milieu, participants related that crystal use had greater potential for personal harm, addiction, and extreme behaviours than ecstasy (Schilder et al., 2005). In addition, crystal use was connected with a cluster of sexual effects, for example, erotic arousal and risky sexual behaviours including anonymous, unprotected, and group sex; these experiences were most often related by HIV-positive participants in this small sample (Schilder et al., 2005). Participants also reported that crystal use helped them stay awake and increased their energy (Schilder et al., 2005).

Green and Halkitis (2006) used data collected from 49 qualitative interviews with gay and bisexual men to explore the relationship between crystal use in the social context of gay sexual subcultures in Manhattan. These authors suggest that social pressures and norms among this gay sexual subculture present sexual scripts that stress specific types of sexual performance, and that crystal users make strategic use of crystal to produce desired social-sexual effects, such as improved sexual performance and enhanced participation in sexual subcultures and events (Green & Halkitis, 2006). The authors

also argue that individual-level factors (for example, self-esteem, social awkwardness) come about because of and are affected by the social context of gay sexual subcultures, and that crystal use and sexual risk-taking are intertwined amongst participants of these subcultures:

We suggest that these interactional pressures, including the need for sexual arousal on demand, sustained sexual endurance, and the ability to have sex with newly acquainted partners—while not determining drug use—have an “elective affinity” with methamphetamine use, as gay and bisexual participants use the drug to negotiate pleasure and peak performance in the course of sexual sociality. Moreover, when using methamphetamine, study participants reported engaging in unprotected anal intercourse, and in some cases, sexually “compulsive” behaviour, to a greater degree than when not using methamphetamine. (p. 319)

Crystal Use Associated with Risky Sex and Transmission of STI among MSM

Ringrose and Kropp (2005) reported that across numerous studies, the use of crystal is associated with sexual risk behaviours. These behaviours include: unprotected anal intercourse (insertive and receptive, and with sero-discordant partners); greater numbers of lifetime sex partners; and non-disclosure of HIV status (Ringrose & Kropp, 2005). One study showed that crystal use has been directly linked to increased risk for acquiring an STI (Hirshfield, Remien, Walavalkar, & Chiasson, 2004). In multiple studies, the number of drugs used was a predictor of unprotected anal intercourse, which means poly-drug use that could include crystal also was significantly associated with high-risk sexual behaviours (Hirshfield et al., 2004).

Halkitis et al. (2005) reported the results of research on 49 gay and bisexual crystal users in New York City, and the implications of those results on the relationship between drug use and sex practices. The authors stated that their results were not able to show a causal relationship between crystal use and unprotected sex behaviours, and they suggest that crystal may attract a risk-taking group of men who engage in unprotected sexual behaviours regardless of their crystal use (Halkitis, Shrem, & Martin, 2005). According to Halkitis et al. (2005):

By no means should methamphetamine be taken “off the hook” as a contributing influence for sexual risk behaviors. However, while drugs like methamphetamine diminish inhibitions, fuel the sexual desires of its users, intensify sexual pleasure, and, in turn, enhance the full participation in a form of commercial sexuality, methamphetamine does seem to take on a catalytic role of attracting behaviors that may already have been in place within the individual. (p. 715)

Additional Considerations for HIV-Positive Crystal-Using MSM

Ringrose and Kropp reported multiple additional considerations and consequences of crystal use among HIV positive MSM (Ringrose & Kropp, 2005). These include: health concerns (such as hypertension, hyperthermia, rhabdomyolysis, stroke); mental health concerns (such as paranoia, auditory hallucinations, and violent behaviour when intoxicated); and concerns related to HIV medications (such as interfering with the effectiveness of and adherence to antiretroviral medications) (Ringrose & Kropp, 2005). Ringrose and Kropp also point out that fatal interactions between protease inhibitors (stavudine, saquinavir, and ritonavir) and crystal have been reported; the authors refer to a review on this topic by Urbania and Jones published in 2004 (Ringrose & Kropp, 2005).

Interventions for Crystal Use and Sexual Risk Behaviour

There is very limited literature on prevention and treatment interventions related to crystal use and sexual risk behaviour, especially among MSM (Ringrose & Kropp, 2005). This may be related to the newness of programming that addresses these issues. For example, various studies compare the efficacy of types of drug abuse treatment methods (Baker, Boggs, & Lewin, 2001; Rawson et al., 2004); however, these studies do not focus on MSM populations. A study by Shoptaw and colleagues (2005) evaluated the efficacy of four behavioural drug-abuse treatments aimed at reducing both crystal use and sexual risk behaviours of crystal-dependent gay and bisexual men, and found that while all groups reported a treatment-induced decrease in drug use and engagement in less sexually risky behaviour, there was no significant difference between the four treatment methods used.

Future Research on Crystal and MSM Communities

Worth and Rawstorne (2005) published an editorial on the subject of research on crystal use and unsafe sex; they for a more comprehensive picture of the link between these two phenomena. They attested that delineating the link between sex and drug use is not easy, and suggest using sociological concepts—such as considering the cultural milieu in which MSM have sex—to understand and explore crystal use and sex among MSM (Worth & Rawstorne, 2005). They called for population-level research where these behaviours are seen as part of wider community norms, and the cultural milieu of MSM. (Worth & Rawstorne, 2005).

In their carefully considered review, Stall and Purcell (2000) proposed that future avenues for research on drug use and gay and bisexual men should include research on: underlying factors that influence the relationship between substance use and high-risk sexual behaviour, dependency issues, and an emphasis on high-frequency drug users (Stall & Purcell, 2000). Stall and Purcell (2000) indicated some of the underlying factors thought to influence the relationship between substance use and high risk sexual behaviour: knowledge, attitude, and beliefs individuals use to explain sexual risk-taking; precludes to sexual events such as the participant's mood, the relationship with the sex partner, setting, reasons for using or not using condoms, perceived HIV status of the partner; and a cluster of circumstances distinguishing sexually risky events, such

emotional distancing preceding and during sex and an intense regret and concern about the sexual risk-taking after it occurs. All these factors should be considered in relation to crystal use among MSM.

Study Methodology

The *Desired Effects* study (also known as the *Dual Risk* study) was a three-phase study. Phase I consisted of qualitative interviews, Phase II consisted of quantitative cross-sectional interviews, and Phase III consisted of longitudinal diaries in which a smaller group of respondents recorded drug use and sexual events. The analysis presented in this report focuses on data collected during the Phase II quantitative interviews only.

Study Objectives

There are two main objectives to this secondary analysis of *Desired Effects* study data. The first is to develop a greater understanding of the use of crystal in the gay community. Specifically, this analysis proposed to describe the spectrum and patterns of crystal use among a sample of MSM in Toronto.

This objective was achieved by focusing on four aspects within this community:

- a. use of crystal alone, and use of crystal as well as other drugs,
- b. long-term and short-term use of crystal,
- c. modes of administration and frequency of crystal use, and
- d. the occurrence and distribution of drug problems, dependency, and addictions.

The second objective is to compare men who use crystal and those who use other drugs in relation to their participation in sexual behaviour and their HIV transmission risk. This was achieved by exploring variables that mediate or moderate the association between drug use and behaviours that put people at risk for HIV. Some of the variables explored included personal characteristics, drug-use career and experience, dependence, addiction, problem drug use, level of drug use, and context and patterns of drug use.

This report is based on data gathered from completed phases of the *Desired Effects* study. The overall aim of the *Desired Effects* study was to describe sexual risk-taking behaviour in relation to patterns of alcohol and poly-drug use, and to obtain event-based data on variables that may mediate the relationship between substance use and sexual behaviour among MSM. One purpose of the *Desired Effects* study was to derive information that may be used in education and health-promotion strategies and programs for MSM.

Project Timeline

Phase II pilot-test interviews were conducted between March and April 2002. Full implementation of study promotion and recruitment and participant interviews began in May 2002, and ended in August 2003, cumulating in 15 months of data collection.

Recruitment and Promotion

This was a study of self-identified gay, bisexual, and other men who have sex with men. It was venue-based, where the population was recruited through gay bars, bathhouses,

clubs, dances, and gay and/or drug-related community groups. Men also were recruited from community centres and organizations that provided services directly to the drug-using population. Advertisements were placed in select media, in both gay and mainstream community publications. Finally, “snowball sampling” also proved to be an important means of recruiting men into the *Desired Effects* study. Snowball sampling is a third-party referral system, where initial respondents are asked to refer members of their social network to participate in the study. Those referred to the study by snowballing contacted the study office to gain further information about the study. All potential participants were screened for eligibility upon making contact with the study office.

Eligibility Criteria

To be eligible for the *Desired Effects* study, individuals were required to meet six criteria. They were required to:

- be 15 years of age or older;
- self-identify as gay, homosexual, bisexual, or having sex with men;
- be sexually active, meaning that they had engaged in sexual activity with another male on average at least 2–3 times a month over the past 3 months. For the purposes of this study, sex was defined as participating in one of the following: mutual masturbation, oral genital stimulation, or anal intercourse, either receptive or insertive;
- have used at least one illicit drug, or licit drug for non-medical purpose, other than marijuana or alcohol, in the previous 3 months. More specifically, men were required to have used these drugs at least 2–3 times per month on an average;
- speak, read, and write English; and
- live in the Greater Toronto Area.

Interviews

The survey data were collected in an interview conducted by a trained member of the research staff. Informed consent was obtained from all participants prior to the interview, and anonymity of respondents was permitted. Participants completed the standardized interview in person; the interview lasted between one and two hours. In total, 300 gay, bisexual, and other men who have sex with men participated in the quantitative interview.

Payment of Respondents

Participants were given an honorarium of \$20 to participate in Phase II of the study.

Data Analysis

Data collected from the base questionnaire are coded and double entered into a database (SAS) for cleaning and analysis. Participants were assigned identification numbers. To describe the spectrum and patterns of drug use, frequencies and contingency tables were prepared. To examine the association between variables, such as drug use and sexual risk-taking, cross-tabulations using chi-square statistics, t-tests, and logistic regression analyses were undertaken.

Part II: Results

Chapter 1.

Characteristics of the *Desired Effects* Participants and Comparison with the *Ontario Men's Survey*

The purpose of this chapter is twofold, first to describe the *Desired Effects* study participants with respect to personal characteristics such as age, income, work status, housing situation, sexual identity, and involvement in the gay community in Toronto; and second to compare the participants of this study to the Toronto sample of the earlier conducted *Ontario Men's Survey (OMS)* (Myers et al., 2004). A comparison to the *OMS* participants is conducted to understand whether the *Desired Effects* men represent a large or small proportion of the MSM in Toronto.

The *OMS* was a cross-sectional socio-behavioural and HIV prevalence study of self-identified gay and bisexual men in Ontario (Myers et al., 2004). It was conducted through the HIV Social, Behavioural and Epidemiological Studies Unit at the University of Toronto in collaboration with community groups and venues in 13 regions of the Province of Ontario, one of them being the Greater Toronto Area (GTA). Men were recruited for the *OMS* by trained volunteers who visited gay and bisexual venues and handed out the surveys for completion. Advertising was undertaken by the use of posters and brochures, and through the Toronto edition of *Xtra!*, as well as a central website and a toll-free telephone line. For more detail on the *OMS* design and function please see the *Ontario Men's Study Report* (Myers et al., 2004). All self-identified gay and bisexual men in the 13 participating regions of Ontario were eligible to participate. There were no additional criteria based upon sexual activity, substance use, language, or any other factor. The questionnaire was translated from English into 6 additional languages so the study would reach out to the broader Ontario MSM community. In total, 5,080 men filled out a self-completed survey, and 2,428 of them came from the GTA.

For the *Desired Effects* study, cross-sectional interviews were conducted with 300 men from the Greater Toronto Area, about their sexual behaviour and their use of 20 different drugs or substances. To qualify for admittance into the study, men were required to meet two behavioural criteria in the 90 days prior to their screening. They had to 1) have used drugs that were not limited to alcohol and marijuana, and 2) have had oral or anal sex with another man.

When the *Desired Effects* sample was compared with the *OMS* sample from the Greater Toronto Area:

- The proportion of *OMS* men who met the drug criteria of *Desired Effects* was 48.6%
- The proportion of *OMS* men who met the sexual criteria of *Desired Effects* was 85.0%
- The proportion of *OMS* men who met **both** *Desired Effects* criteria was 43.8%

Therefore, while *Desired Effects* recruited a very specific sample of men in Toronto, just less than half (43.8%) of the participants in the earlier *OMS* would have been qualified to participate. Therefore the results of *Desired Effects* may be applied to large numbers of men.

This chapter outlines the social and demographic characteristics of the men participating in the *Desired Effects* study, as well as those participating in the *OMS* (Toronto region) where similar questions were asked. The *Desired Effects* sample differed from the *OMS* Toronto Region sample on a number of key characteristics.

Age, First Language, and Highest Education Level of the Participants

The age distribution of participants was similar in both the *Desired Effects* and the Toronto sample of *OMS*. The majority of the participants in both studies were between 21 and 40 years of age. The most notable difference between the ages of the two study groups was in the 50+ age group; slightly more than 5% of the participants in the *Desired Effects* study were in this group, while nearly 10% of the *OMS* sample was in this age group (see Table 1.1).

A large majority of respondents in both studies reported English as their mother tongue (that is, first language spoken and which is still spoken), with similar percentages in both study samples. A smaller proportion of the men in *Desired Effects* reported French as their mother tongue than in the *OMS* (3.7% and 5.2% respectively). Similar proportions in each study stated that a first language was other than English, French, or Spanish.

Table 1.1
Characteristics of the Participants, Including Age, First Language Spoken and Highest Level of Education

| Characteristic | Desired Effects Study N=300 % | OMS Toronto Region N=2,428 % |
|-----------------------------------|-------------------------------------|------------------------------------|
| Age Group | | |
| 20 years of age or younger | 8.3 | 6.7 |
| 21–30 | 31.0 | 29.3 |
| 31–40 | 35.7 | 35.4 |
| 41–50 | 19.7 | 19.2 |
| 51 years of age or older | 5.3 | 9.4 |
| Mother Tongue | | |
| English | 78.1 | 76.6 |
| French | 3.7 | 5.2 |
| Spanish | 3.4 | 3.6 |
| Other | 14.8 | 14.6 |
| Highest Level of Education | | |
| Some high school or less | 20.3 | 8.1 |
| Completed high school | 16.3 | 13.2 |
| Some college or university | 23.0 | 25.1 |
| Completed college or university | 29.3 | 38.8 |
| Postgraduate | 11.0 | 14.8 |

The greatest difference between the participants in the two studies was in education level. The *Desired Effects* participants included a much larger proportion (slightly more than 20%) of men who reported having some high school or less, while only 8.1% of the *OMS* sample were in this group. Both studies included men with higher levels of education, but a larger proportion of the *OMS* sample had completed college or university or gone on to postgraduate study.

Table 1.2
Characteristics of the Participants, Including Work Status, Student Status and Income

| Characteristic | Desired Effects Study N=300 % | OMS Toronto Region N=2,428 % |
|---|-------------------------------------|------------------------------------|
| Work Status | | |
| Employed full-time | 37.5 | 62.1 |
| Employed part-time | 14.7 | 15.3 |
| Unemployed | 27.1 | 10.2 |
| Unemployed student | 3.3 | 3.4 |
| On disability | 9.7 | 4.4 |
| Retired/other | 7.7 | 4.7 |
| Student Status | | |
| Not currently a student | 83.7 | 80.9 |
| Full-time student | 7.0 | 11.7 |
| Part-time student | 9.3 | 7.4 |
| Income ^a | | |
| Less than \$10,000 | 16.3 | 12.5 |
| \$10,000–\$19,999 | 17.7 | 13.4 |
| \$20,000–\$29,999 | 17.0 | 14.1 |
| \$30,000–\$39,999 | 15.6 | 17.1 |
| \$40,000–\$49,999 | 10.7 | 11.5 |
| \$50,000–\$59,999 | 7.6 | 9.3 |
| \$60,000–\$69,999 | 4.8 | 7.3 |
| \$70,000–\$79,999 | 4.2 | 4.5 |
| \$80,000–\$89,999 | 1.7 | 2.7 |
| \$90,000–\$99,999 | 0.3 | 1.7 |
| \$100000 or more | 4.2 | 5.9 |
| Main Source of Income ^b | | |
| Salary/self-employment (no sex work) | 57.7 | |
| Sex work | 5.4 | |
| Employment Insurance, social assistance | 8.4 | |
| Pension, OAS | 21.1 | |
| Family or friends | 7.4 | |

^a This question was not answered by 11 respondents in the *Desired Effects* study.

^b These data were not available from the *OMS* (Toronto).

Current Work Status, Student Status, and Income of the Participants

The majority of the men from the *OMS* were employed full-time; however, the proportion of *Desired Effects* participants in this category was nearly half that of the *OMS* (37.5% and 62.1% respectively). The proportion of participants who were unemployed, on disability, or retired/other was greater in the *Desired Effects* study than in the *OMS* (see Table 1.2).

Less than 20% of each sample were students at the time of their participation in the study. Of the participants who were students, a greater proportion of the *Desired Effects* men were part-time rather than full-time students also. The proportion of part-time students in this study was greater than the proportion in the *OMS*. There was a greater percent (4% greater) of full-time students in the *OMS*.

Overall, the men in the *OMS* reported a higher income than those in the *Desired Effects* study. The *Desired Effects* study involved greater proportions of men in each of the three lowest income categories (making less than \$30,000 annually). The largest proportion of participants from the *OMS* Toronto sample reported earning \$30,000 to \$39,999 per year. A higher proportion of the *OMS* men reported making \$50,000 or more annually when compared to the *Desired Effects* study, with higher proportions of men in each of the top six income brackets (see Table 1.2).

More than half (57.7%) of the men in the *Desired Effects* study earned their income from salaried work or self-employment that did not include sex work. Nearly a quarter of the sample collected a pension or Old Age Security (OAS). The smallest proportion of the group, 5.4%, earned their living through sex work. Source of income information was not available for men participating in the *OMS*.

Housing and Marital Status of Participants

Most participants in the *Desired Effects* study left home when they were 16 years of age or older, and the largest proportion left home between the ages of 16 and 18. Approximately one fifth of the study participants reported leaving home when they were 15 years old or younger (see Table 1.3). Comparable data were not collected in the *OMS*, except for information regarding the number of cities in which the participants had lived.

The number of cities the men reported living in was quite similar across studies. Three-quarters of each group (74.0% of the *Desired Effects* participants and 74.9% of the Toronto *OMS* participants) had lived in 2–4 cities. The smallest proportion of men in both groups had lived in 10 or more cities.

More than two-thirds of the *Desired Effects* participants lived alone (39.6%), or with roommates or in a rooming house (33.7%). Similar proportions of the participants lived with a regular male sex partner (10.7%) as lived with a female partner or family members (9.0%). The smallest proportion of participants in this study had no permanent housing. When asked about legal marital status, the vast majority of the *Desired Effects* participants (more than 80%) reported being single. Only 7.0% reported living common-law with a same-sex partner (see Table 1.3).

Table 1.3
Characteristics of Participants, Including Housing History, Current Housing Situation and Marital Status

| Characteristic | Desired Effects Study N=300 % | OMS Toronto Region N=2,428 % |
|---|-------------------------------------|---------------------------------------|
| Age Left Home ^a | | |
| 15 or younger | 20.3 | |
| 16–18 | 41.7 | |
| 19 or older | 38.0 | |
| Number of Cities Lived In | | |
| 1 | 10.0 | 12.9 |
| 2–4 | 74.0 | 74.9 |
| 5–9 | 10.0 | 10.2 |
| 10 or more | 6.0 | 2.0 |
| Current Housing Situation ^a | | |
| Alone | 39.6 | |
| With regular male sex partner | 10.7 | |
| With female partner or family | 9.0 | |
| With roommates or in rooming house | 33.7 | |
| No permanent housing | 7.0 | |
| Legal Marital Status ^a | | |
| Single | 81.7 | |
| Common law with same sex partner | 7.0 | |
| Separated/widowed/divorced | 11.3 | |

^a These data were not available from the OMS (Toronto).

Sexual Orientation

Sexual orientation was measured in two ways in the *Desired Effects* study—self-identification and behaviourally. It was measured only by self-identity in the *OMS*. Some differences were seen in sexual identity between the studies (see Table 1.4). The majority of the participants in both studies reported a gay (or homosexual) self-identity. However, the proportion of gay men was greater in the *OMS* by nearly 15%. One in 5 of the *Desired Effects* participants categorized themselves as bisexual. A slightly smaller proportion of the *OMS* participants (one in 7) reported the bisexual orientation. Almost one-tenth of the *Desired Effects* population were self-described as either two-spirited, transsexual or “Other.” “Other” included “I don’t categorize my identity,” “experimenting,” and “don’t know.” These categories were not distinguished in the *OMS*; however, they would likely all be represented in the 1.7% indicating “Other.”

The *Desired Effects* study collected information regarding the participant’s behavioural sexual orientation over the past 5 years. As shown in Table 1.4, roughly two-thirds of the participants had sexual contact solely with men; this percentage was slightly lower than the percentage of men who identified themselves as gay. Interestingly, a larger proportion of men said they “had sexual contact with both men and women to some extent” (38.2%

of the participants) than those who identified themselves as bisexual (20.1%). Finally, although 2.0% of the men identified themselves as straight, all reported sex with men in the past three months (as specified in the eligibility criteria).

Table 1.4
Sexual Orientation of Participants

| Characteristic | Desired Effects Study N=300 % | OMS Toronto Region N=2,428 % |
|---|--|---------------------------------------|
| Self-Categorized Sexual Identity | | |
| Gay | 68.2 | 82.9 |
| Straight | 2.0 | 2.3 |
| Bisexual | 20.1 | 13.0 |
| Transgender | 0.3 | 0.1 |
| Two-spirit | 1.7 | — ^b |
| Transsexual | 0.7 | — ^b |
| Other | 7.0 | 1.7 |
| Behavioural Sexual Orientation in Past 5 years^a | | |
| Only sex with men | | |
| Mostly sex with men, occasionally women | 61.8 | |
| Equally sex with men and women | 25.4 | |
| Mostly sex with women, occasionally men | 6.4 | |
| | 6.4 | |

^a These data were not available from the OMS (Toronto).

^b These categories were included in the "Other" category.

Attachment to, and Involvement in, the Gay Community

Participants in both studies were asked questions regarding their attachment to and involvement in the gay community. The *Desired Effects* participants were asked a general question: "How attached to, or a part of, the Toronto gay community would you say you are?" More than half the participants (57.3%) felt somewhat attached, and another quarter (25.9%) felt very attached (see Table 1.5).

Men in both studies were asked about the frequency with which they attend gay bars and bathhouses. The largest proportion of each study group, approximately one-third, reported attending gay bars 1–2 times per week. A larger proportion of the *Desired Effects* study participants attended gay bars more frequently (more than once a week) than the *OMS*. Interestingly, a larger proportion of *Desired Effects* than *OMS* participants also reported never attending gay bars. Fewer men in the *OMS* than in the *Desired Effects* study reported attending bathhouses (57.2% and 73.0% respectively).

Circuit parties have been frequently tied to crystal use in the literature (Clatts & Goldsamt, 2005; Mansergh, 2001). The *Desired Effects* men did not report frequent attendance at these events, and the *OMS* men were not asked this question (see Table 1.5).

Table 1.5
Participants' Attachment to, and Involvement with, the Gay Community

| Characteristic | Desired Effects Study N=300 % | OMS Toronto Region N=2,428 % |
|--|--|---------------------------------------|
| Attachment to Toronto Gay Community ^a | | |
| None at all | 16.8 | |
| Somewhat attached | 57.3 | |
| Very attached | 25.9 | |
| Frequency Attending Gay Bar(s) | | |
| Never | 5.7 | 2.5 |
| Less than once a month | 11.3 | 14.8 |
| 1 to 3 times a month | 25.3 | 27.1 |
| 1 to 2 times a week | 33.0 | 32.1 |
| 3 or more times a week | 24.7 | 19.5 |
| Frequency Attending Bathhouse(s) | | |
| Never | 27.0 | 42.8 |
| Less than once a month | 30.3 | 38.2 |
| 1 to 3 times a month | 26.0 | 12.9 |
| 1 to 2 times a week | 12.0 | 5.2 |
| 3 or more times a week | 4.7 | 2.1 |
| Frequency Attending Gay Circuit Parties, Past Year ^a | | |
| Never | | |
| Less than once a month | 52.3 | |
| 1 to 3 times a month | 43.7 | |
| | 4.0 | |

^a These data were not available from the OMS (Toronto).

Chapter 2.

Use of Crystal and Other Recreational Drugs

This chapter presents information collected on drug use, including use of crystal. *Desired Effects* survey participants were asked a number of questions about use of 20 drugs in their lifetime, in the past 12 months, and in the 90 days prior to the interview. Participants were asked about age of first use and length of use and questioned about the number of days the drugs were used and the contexts of drug use. Comparisons are made with the Toronto region of the *OMS* participants where possible.

Prevalence of Alcohol and Drug Use

Alcohol, marijuana, and cocaine were the drugs used by the largest proportion of men within the 12 months prior to the survey (see Table 2.1). Almost 95% of the men involved in the survey drank alcohol, and 91% used marijuana or hash during that time period. Crystal use was reported by slightly less than 36% of the men, making it the eighth most commonly used drug in the past 12 months. About the same number of men reported using crack or tranquilizers.

Table 2.1
Drug Use in the Past 12 Months: Comparison of the *Desired Effects* and the *OMS* (Toronto) Studies

| Drug | Desired Effects Study N=300 % | OMS Toronto Region N=2,428 % |
|--|-------------------------------------|------------------------------------|
| Alcohol | 94.3 | – |
| Marijuana (cannabis) | 91.0 | 46.2 |
| Cocaine | 67.3 | 20.6 |
| Poppers (amyl nitrite) | 65.3 | 23.1 |
| Ecstasy | 61.7 | 22.9 |
| Special K (ketamine) | 48.3 | 15.7 |
| Psychedelics | 40.0 | 3.4 |
| Crystal (crystal methamphetamine) ^a | 35.7 | – |
| Crack (freebase cocaine) | 35.3 | 4.6 |
| Tranquilizers | 33.0 | 5.7 |
| Opioids (not heroin) | 30.3 | 1.7 |
| GHB | 25.0 | 6.6 |
| Viagra | 24.0 | 10.5 |
| Other amphetamines ^a | 15.7 | 6.1 |
| Heroin | 8.3 | 0.8 |
| Barbiturates | 3.3 | 1.1 |
| PAVA/PABA | 2.7 | – |
| Speedball | 2.3 | 1.9 |
| Steroids | 2.0 | 1.9 |
| Solvents | 0.3 | 0.5 |

^a In the *OMS* (Toronto), crystal was included with all other amphetamines.

Drug use, for each of the drugs included, was less common in the *OMS* than in the *Desired Effects* study; this was mainly because each study targeted a different group of men who have sex with men. The *Desired Effects* study sought out men who had sex with men and who used drugs other than alcohol and marijuana; the *OMS* included all gay, bisexual, and other men who had sex with men across Ontario, including men who did not use drugs. Most of the drugs asked about in the *Desired Effects* study were also asked about in the *OMS*; however in the *OMS*, there were questions about amphetamine use but no questions specifically about crystal use.

Drug use was more common across the lifetime than in the past 12 months or 90 days. This shows that a lot of men may have some experience with a drug at some point in their lives, but not all of them have used a drug recently. Table 2.2 shows the proportion of men who reported using each of the 20 drugs within their lifetime and more recently (within the past 90 days). For example, 97.3% of men had used marijuana during their lifetimes, and only 87.7% had used it within the past 90 days. The lifetime and 90-day rates of marijuana use were quite similar, but that is not the case with every drug, as can be seen with crystal and with psychedelic drugs. About half the lifetime users of crystal had used crystal within the past 90 days (54.7% lifetime, 27.7% 90-day); whereas roughly one-third of lifetime users of psychedelics had used within the past 90 days (83.0% lifetime, 30.0% 90-day). Typically, the smaller the discrepancy between lifetime and 90-day use, the more popular the drug is at present.

Table 2.2
Recreational Drug Use in the Past 90 Days and Lifetime ^a

| Drug | 90 Days % | Lifetime % |
|----------------------|--------------|---------------|
| Alcohol | 93.3 | 99.3 |
| Marijuana | 87.7 | 97.3 |
| Poppers | 59.7 | 84.0 |
| Cocaine | 58.3 | 86.7 |
| Ecstasy | 53.7 | 78.0 |
| Special K | 41.0 | 63.0 |
| Psychedelics | 30.0 | 83.0 |
| Crack | 29.3 | 50.3 |
| Crystal | 27.7 | 54.7 |
| Tranquilizers | 27.3 | 46.7 |
| Opioids (not heroin) | 27.0 | 43.0 |
| GHB | 19.3 | 37.0 |
| Viagra | 18.7 | 33.3 |
| Other amphetamines | 12.3 | 41.0 |
| Heroin | 6.0 | 26.7 |
| PAVA/PABA | 2.7 | 5.0 |
| Barbiturates | 2.7 | 13.0 |
| Speedball | 1.3 | 9.3 |
| Steroids | 1.3 | 4.7 |
| Solvents | 0.0 | 7.3 |

^a Total number of participants was 300.

Drug Dependence

In this study, questions were asked to determine dependence on specific drugs. The proportion of the men surveyed who were dependent was determined using the DSM-IV criteria.¹

As shown in Table 2.3, crystal showed one of the lowest reported dependency rates. Drugs have different dependency rates; for example, men who used heroin or crack during the 12 months prior to the study were much more likely to be dependent on them than were crystal users (66.0%, 53.8%, and 22.4% respectively).

When considering drug dependence it is also important to consider how many people use the drugs in question. For example, although many heroin users are dependent on

Table 2.3
Drug Dependence in the Past 12 Months^a

| Drug | Percent of 12-Month Users Dependent ^b | Percent of Sample Dependent ^c |
|----------------------|--|--|
| Heroin | 66.0 | 5.7 |
| Crack | 53.8 | 19.0 |
| Alcohol ^d | 38.1 | 36.0 |
| Cocaine | 35.2 | 23.7 |
| Marijuana | 34.1 | 31.0 |
| Ecstasy | 31.0 | 19.0 |
| Special K | 25.5 | 12.3 |
| Other amphetamines | 23.4 | 3.7 |
| Crystal | 22.4 | 8.0 |
| GHB | 8.0 | 2.0 |

^a Persons were considered dependent on a drug if they met three or more of the seven DSM-IV criteria for dependence at any time in the same 12-month period. The seven criteria are: 1. Tolerance, 2. Withdrawal, 3. Consumed more than intended, 4. Wants to cut down, 5. Drug-seeking behaviour, 6. Experienced social repercussions, and 7. Experienced health repercussions.

^b Percent dependent was calculated as a percent of the participants who reported using the drug in the past 12 months.

^c Percent dependent was calculated as a percent of the total study sample (N=300).

^d Percent of participants reporting frequent heavy use of alcohol (consumed at least 5 standard drinks on an occasion, at least once per week or more often), since alcohol dependence was not measured.

heroin (66.0%), very few people use heroin, so heroin dependence was an issue for only a small proportion of the study participants (5.7%) in the previous 12 months. Crystal use was somewhat higher with 8.0% dependent; marijuana was the drug with the highest overall dependency rate.

Many men (38.1%) in the *Desired Effects* study drank alcohol heavily (5 or more drinks on one occasion) and frequently (once or more per week) over the past 12 months (see Table 2.3). Although this is not a measure of dependence on alcohol, it has been included

¹ To be classified as dependent on a drug according to the American Psychiatric Association's DSM-IV criteria, a person must have experienced at least three of the possible seven conditions for a minimum of one month. The conditions are 1. increased tolerance, 2. withdrawal symptoms, 3. consumed more than meant to, 4. wants to cut down, 5. drug-seeking behaviour, 6. experienced social repercussions, and 7. experienced health repercussions (APA, 1994).

in the table, since the men were not asked the dependence questions for alcohol, and it is an indicator of the experience of alcohol problems.

First Drug Use and Length of Use

Table 2.4 shows the average age at which use of each of the drugs was started, as well as its length of use. Solvents such as gasoline, glue, and paint thinner were used at the youngest age, but only for a very short time. They were followed by alcohol then marijuana, as is the traditional pattern of drug initiation. Alcohol was also used the longest—this is likely because alcohol is legal and available. Marijuana is not far behind alcohol in this study population.

Table 2.4
Age of First Drug Use and Number of Years Drugs Have Been Used ^a

| Drug | First Use | | Years of Use | |
|------------------------|-------------|-----------|--------------------|---------------------|
| | Average Age | Age Range | Average # of Years | Range of # of Years |
| Solvents | 13.7 | 8–23 | 3.0 | 1–38 |
| Alcohol | 14.3 | 6–45 | 19.6 | 3–48 |
| Marijuana | 16.6 | 7–50 | 17.7 | 1–48 |
| Psychedelics | 18.6 | 10–52 | 15.9 | 0–38 |
| Other amphetamines | 21.6 | 8–41 | 12.3 | 0–44 |
| Poppers | 22.0 | 11–50 | 13.0 | 0–37 |
| Tranquilizers | 22.2 | 9–42 | 12.4 | 1–37 |
| Cocaine | 23.1 | 12–55 | 11.4 | 0–35 |
| Barbiturates | 23.2 | 12–50 | 14.9 | 1–35 |
| Opioids (not heroin) | 23.7 | 12–51 | 11.1 | 0–38 |
| Heroin | 25.4 | 15–50 | 10.4 | 0–35 |
| Speedball | 26.1 | 14–40 | 9.1 | 0–27 |
| Ecstasy | 26.6 | 12–55 | 6.3 | 0–38 |
| Crystal | 26.7 | 11–50 | 6.7 | 0–48 |
| Steroids | 27.3 | 15–39 | 6.4 | 1–13 |
| Special K | 28.3 | 14–52 | 3.9 | 0–20 |
| Crack | 28.4 | 13–60 | 8.0 | 0–30 |
| GHB | 28.6 | 15–50 | 2.6 | 0–8 |
| Viagra | 33.8 | 17–54 | 2.0 | 0–6 |
| PAVA/PABA ^b | 39.9 | 23–52 | 4.0 | 0–16 |

^a Total number of participants was 300.

^b Injectable Viagra, Bimix – mixture of papaverine and phentolamine, Trimix (PPP) adds PGE1.

Men began using crystal later in life; it was the fourteenth drug in terms of the average starting age. Some other drugs first used at a similar age were ecstasy (26.6 years) and Special K (28.3 years). On average, crystal use started at age 26.7, 12 years later than alcohol and 10 years later than marijuana. However, the age at first use of Viagra and

GHB was much older still. The age one starts using a drug is related to both the market availability of the drug, which has been quite recent for crystal in Toronto, and a gradual introduction of drugs to the person, starting with softer drugs such as alcohol and marijuana, and working up to harder drugs. As a result, crystal has been used for a relatively low number of years by study participants (6.7 years).

New information emerged when the age of first use and the number of years of crystal use examined by age group. Older men (older than 41) who reported using crystal at some point started crystal later in life (see Table 2.5) and had used it for a longer period than younger groups (see Table 2.6). Although the average age of starting crystal has increased for each age group, the lower end of the range is relatively early for all age groups except for those older than 51. This indicates that across the years, some boys

Table 2.5
Age of First Use of Crystal by Age Group, Desired Effects Participants Who Used Crystal in Lifetime^a

| Participants' Current Age | Number of Participants in this Category | Age at First Use | |
|---------------------------|---|------------------|-------|
| | | Average | Range |
| 20 or younger | 16 | 16.5 | 11–18 |
| 21–30 | 53 | 21.1 | 12–29 |
| 31–40 | 60 | 29.4 | 13–39 |
| 41–50 | 26 | 35.7 | 14–50 |
| 51 or older | 9 | 34.3 | 22–50 |

^a Number of participants who used crystal during their lifetime was 164.

Table 2.6
Years of Use of Crystal by Age Group, Desired Effects Participants Who Used Crystal in Lifetime^a

| Participants' Current Age | Number of Participants in this Category | Years of Use | |
|---------------------------|---|--------------|-------|
| | | Average | Range |
| 20 or younger | 16 | 2.7 | 0–5 |
| 21–30 | 53 | 4.7 | 0–13 |
| 31–40 | 60 | 6.1 | 0–25 |
| 41–50 | 26 | 9.8 | 0–34 |
| 51 or older | 9 | 21.3 | 6–48 |

^a Number of participants who used crystal during their lifetime was 164.

were always trying crystal for their first time at about age 12–13. However, as expected, older men have used crystal longer than those in younger age groups. This is true even with the recent increase of crystal use overall and is especially noticeable for men who are currently 51 and older. This small group (only 9 men) reported their first use at 34.3 years of age, and on average they have used the drug for 21.3 years (with a wide range of 6–48 years of use).

Context of Drug Use

Some drugs are used daily; others may be used with different frequency patterns, for example, at parties on weekends. Their rate of use and context of use are related to the problems that can arise from their use.

An examination of the context of drug use was started by asking some questions about frequency of use of all drugs grouped together; the results are seen in Figure 2.1. The figure summarizes answers to four questions:

1. In the past 90 days, on how many days did you use drugs?
2. In the past 90 days, on how many days were you drunk or high for most of the day?
3. In the past 90 days, on how many days were you kept from meeting responsibilities due to drug use?
4. In the past 90 days, on how many days *in a row* were you able to go *without* using drugs?

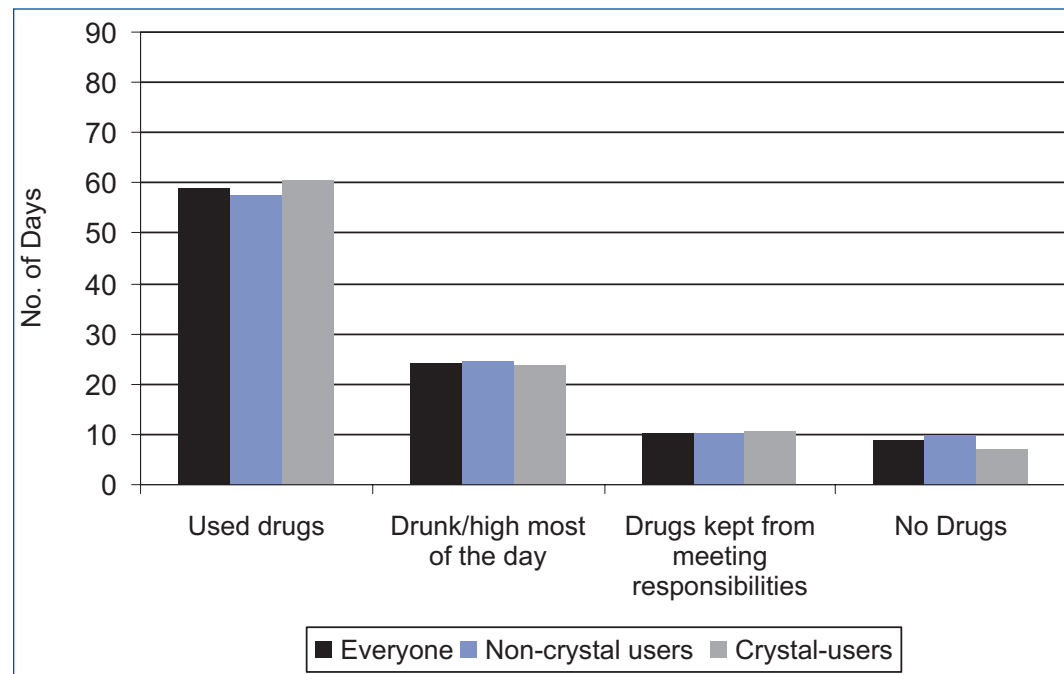


Figure 2.1
Average Number of Days, in the Past 90 Days, Study Participants Used Drugs, Were High or Could Not Meet Their Responsibilities ^a

^a Total number of participants was 300

Although the questions were asked about use of “drugs” the answers have been shown according to whether the participant used crystal within the past 90 days.

Drugs were used on two-thirds of the days in the past 90 days (average 59.2 days, range 7–90 days), as shown in Figure 2.1. Men were drunk or high on an average of 24 days (range 0–90 days), and were unable to meet their responsibilities on an average of 10.4 days (range 0–90 days). Men who had used crystal were no different than those who had not. When it came to the number of days in a row they were able to go without using drugs, men who had used crystal were not able to last as long without drugs (7.1 days) as non-crystal users (average 9.5 days).

Location of Crystal Use

Men used crystal in many different places (see Table 2.7). The three most common places were: at home (32.5%), at a male sex partner’s place (32.5%), and at a friend’s home (32.5%). Also, using at a club or bar or at a bathhouse was common (28.9% and 26.5% respectively). Home was the most typical place to use (17.1%), with a sex partner’s place (15.8%) and a bathhouse not far behind (14.5%).

Table 2.7
Location of Crystal Use ^a

| Crystal was Used at ... | Total Percent Using the Location % | Typical Location % |
|--------------------------------|---|---------------------------|
| Home | 32.5 | 17.1 |
| Male sex partner’s place | 32.5 | 15.8 |
| Friend’s home | 32.5 | 10.5 |
| Club or bar | 28.9 | 13.7 |
| Bathhouse | 26.5 | 14.5 |
| Sex party | 15.7 | 5.3 |
| Dealer’s house | 12.1 | 2.6 |
| Gay dance/circuit party | 10.4 | 6.6 |
| Rave | 9.6 | 3.9 |
| Outdoor public area | 9.6 | 3.9 |
| Hotel | 9.6 | 2.6 |
| Work | 4.8 | 0 |
| School | 3.6 | 0 |
| Restaurant | 2.4 | 0 |
| Prison | 1.2 | 0 |
| Other | 3.6 | 3.6 |

^a Table includes only participants who reported using crystal in the past 90 days (83 men).

Context of Crystal Use

As shown in Table 2.8, crystal users most frequently cited using with a male sexual partner (62.7%) or friends (61.5%). Almost a quarter (24.1%) reported using crystal alone. Using with family members, clients, co-workers, and classmates was rare; less than 4% indicated each of these contexts.

Table 2.8
Context of Crystal Use ^a

| Crystal was used with ... | Total Percent Using in this Context |
|----------------------------------|--|
| Male sexual partner | 62.7 |
| Friend or a number of friends | 61.5 |
| Alone | 24.1 |
| Drug dealer | 16.9 |
| Female sexual partner | 6.0 |
| Male sexual client or “john” | 3.6 |
| Family member | 1.2 |
| Co-worker(s) | 1.2 |
| Classmate | 1.2 |
| Someone else | 0.0 |

^a Table includes only participants who reported using crystal in the past 90 days (83 men).

Method of Crystal Use

Snorting was by far the most popular method of using crystal among men who had reported its use in the past 90 days (see Table 2.9). Of the 83 men who had recently used the drug, 80.5% listed snorting as a method they had used, and 71.3% said that snorting was the way they typically took crystal. Smoking was the next most popular method. Anecdotal evidence suggests that smoking has increased in popularity since this study was completed in 2003.

Table 2.9
Method by which Crystal Was Used ^a

| Crystal was used by ... | Total Percent Using Crystal by this Method | Typical Use % |
|--------------------------------|---|----------------------|
| Snorting/inhaling | 80.5 | 71.3 |
| Smoking | 29.3 | 11.3 |
| Orally | 9.8 | 7.5 |
| Injecting | 7.3 | 5.0 |
| Suppository/other method | 4.8 | 3.6 |

^a Table includes only participants who reported using crystal in the past 90 days (83 men).

Drug Injection

As can be seen in Table 2.9, few men took crystal by injection; only 6 indicated that they had injected crystal in the past 90 days (this question was only asked of that time frame). Four of the 6 had also injected at least one other drug during that time. Although these numbers are small and limited confidence can be placed in them, none of the 6 men indicated that they had shared needles or works in the 90 days.

Drugs were taken by injection by more than these 6 men. Of the 300 men in the study, 39 men (13.0%) indicated that they had injected any type of drug within the past 90 days. However, Table 2.10 shows that a higher proportion of men who had used crystal during their lives had injected drugs (15.9%) than men who had not used crystal (9.6%). The highest proportion of drug injectors was seen among current crystal users (20.5%), even though most of these men did not inject crystal. Three of the 39 men (7.7%) reported that they had shared a used needle during the past 90 days; all 3 used a shared needle; one man used a clean needle and then passed it to another person to use.

Table 2.10
Participants' Use of Drugs by Injection within the Past 90 Days, by Crystal Use

| Use of Crystal | Percent Who Injected Any Drug in the Past 90 Days | |
|------------------------------|---|------|
| | n | % |
| Total Sample | 300 | 13.0 |
| Used Crystal During Lifetime | | |
| No | 136 | 9.6 |
| Yes | 164 | 15.9 |
| Used Crystal in Past 90 Days | | |
| No | 217 | 10.1 |
| Yes | 83 | 20.5 |

Chapter 3.

Use of Crystal and Association with Other Participant Characteristics

This chapter presents the association between a broad range of participant characteristics and crystal use, specifically crystal use in the 90 days prior to the interview. As seen in Chapter 1, *Desired Effects* survey participants were asked a number of questions related to their education, income, age, housing, sexual activity, sexual identity, feelings of attachment to the gay community, and drug use. Eighty-three of the 300 men interviewed (27.7%) had used crystal in the previous 90 days; these men will also be referred to as current crystal users or current users. The percentage of current crystal users who met the criteria of crystal dependence will also be presented and assessed to determine whether dependence is related to education, income, age, housing, and so on. Dependence was defined using the DSM-IV criteria (American Psychiatric Association, 1994).

Age, First Language, and Highest Education Level of the Participants

Results of the *Desired Effects* study showed that the proportion of men who currently use crystal was similar across all age groups, except in the 41–50 year-old group, where current use was clearly lower at 16.9% (see Table 3.1). Younger men were more dependent than older men on crystal: 37.5% of the 20 and younger age group and 39.2% of the 21–30 year old age group current users showed symptoms of crystal dependence. Dependence in men older than 30 was in the range of 10%–20%.

A greater percentage of men who reported English as their mother tongue (first language spoken, and still spoken) were current crystal users than any other language group. However, this group was not the most likely of the current users to report being dependent on the drug. The proportion dependent was 20.5%. Only 18.2% of French speakers were current crystal users. All were dependent according to the criteria (see Table 3.1). None of the men who used crystal in the past 90 days who reported Spanish as their first language were dependent on crystal, while 46.2% of the men who stated their first language was “other” than English, French or Spanish were dependent on crystal.

Similar proportions of men in all education levels reported current crystal use. The highest use was seen in current users who reported having some college or university education. Dependence differed more across educational groups than did use. Dependence was lowest for men who completed high school and highest for men who had some high school or less and for those who had completed college, university or postgraduate studies (see Table 3.1). Therefore, there was no clear trend regarding dependence either increasing or decreasing with education.

Table 3.1
Characteristics of Participants, Including Age, First Language and Highest Level of Education

| Characteristic | Percent Using Crystal in Past 90 Days ^a | Percent of 90-Day Users Dependent on Crystal According to DSM-IV Criteria |
|---|---|--|
| | % | % |
| Age Group | | |
| 20 or younger | 32.0 | 37.5 |
| 21–30 | 30.1 | 39.2 |
| 31–40 | 29.9 | 18.8 |
| 41–50 | 16.9 | 10.0 |
| 51 or older | 31.3 | 20.0 |
| Mother Tongue | | |
| English | 28.0 | 20.5 |
| French | 18.2 | 100.0 |
| Spanish | 20.0 | 0.0 |
| Other | 15.8 | 46.2 |
| Highest Level of Education | | |
| Some high school or less | 24.6 | 33.3 |
| Completed high school | 24.5 | 8.3 |
| Some college or university | 39.1 | 25.9 |
| Completed college/university or post grad | 23.9 | 31.0 |

^a In total, 83/300 (27.7%) of the men used crystal in the past 90 days.

Current Work Status, Student Status, and Income of the Participants

As seen in Table 3.2, current crystal use was most apparent for men who were unemployed students (40.0%), while the group of men who were retired or reported “other” work status and those on disability had lower proportions of current crystal users. Current use of crystal was similar for men who were employed full- or part-time or were unemployed non-students. While only one-fifth of the men on disability were current users, half of the men who used crystal were dependent, the highest rate of dependence. In contrast, although 31.8% of the men who were employed part-time used crystal recently, only 14.4% were considered dependent. Of the men who reported being full-time students, 40.0% of current users were dependent on crystal, much higher than the proportion of either part-time or non-students who were dependent.

Crystal use was highest in middle-income brackets, but there was no clear trend with respect to dependence. While approximately one-quarter of the men in each of the lowest three income levels were current users, 6%–10% more of the men in the middle-income brackets used regularly. Use dropped again in the highest income bracket. However, one-third of the men in each of the lowest, middle and highest income brackets were dependent. The highest combination of use (26.5%) and dependency (38.5%) appeared in the \$20,000–\$29,000 income bracket (see Table 3.2).

Table 3.2
Characteristics of Participants, Including Work Status, Student Status and Income

| Characteristic | Percent Using Crystal in Past 90 Days ^a | Percent of 90-Day Users Dependent on Crystal According to DSM-IV Criteria |
|---|---|--|
| | % | % |
| Work Status | | |
| Employed full-time | 29.5 | 33.3 |
| Employed part-time | 31.8 | 14.4 |
| Unemployed | 27.2 | 18.2 |
| Unemployed student | 40.0 | 25.0 |
| On disability | 20.7 | 50.0 |
| Retired/other | 17.4 | 25.0 |
| Student Status | | |
| Not currently a student | 27.6 | 25.0 |
| Full-time student | 23.8 | 40.0 |
| Part-time student | 32.1 | 33.3 |
| Income ^b | | |
| Less than \$10,000 | 25.5 | 33.3 |
| \$10,000–\$19,000 | 23.5 | 16.7 |
| \$20,000–\$29,000 | 26.5 | 38.5 |
| \$30,000–\$49,000 | 31.6 | 33.3 |
| \$50,000–\$69,000 | 36.1 | 7.7 |
| \$70,000 or more | 20.0 | 33.3 |
| Main Source of Income | | |
| Salary/self-employment (no sex work) | 27.9 | 25.0 |
| Sex work | 31.3 | 40.0 |
| Employment Insurance, social assistance | 36.0 | 22.2 |
| Pension, OAS | 28.6 | 27.8 |
| Family or friends | 13.6 | 33.3 |

^a In total, 83/300 (27.7%) of the men used crystal in the past 90 days.

^b 11 participants did not respond.

The majority (58%) of the men who participated in the study were employed (either receiving a regular wage, or self-employed), and these men were average in terms of both current crystal use and dependence. Many of the men (36%) who were receiving income through employment assistance, social assistance or welfare were current crystal users; although this group was the least likely to be dependent. The second highest use (31%) was seen among men who reported earning their income through sex work. This latter group also showed the greatest proportion of men who were dependent on crystal. Although only 13% of the men who reported that their income came from their family or friends, were current users; and 33.3% of this group were dependent on crystal.

Housing and Marital Status of Participants

Table 3.3 shows that men who left home between the ages of 16 and 18 were most likely to be current crystal users (36.0%); they were also most likely to be dependent on the drug (31.1%) compared to men who left home at earlier and later ages.

Table 3.3
Characteristics of Participants, Including Housing History, Current Housing Situation and Marital Status

| Characteristic | Percent Using Crystal in Past 90 Days ^a | Percent of 90-Day Users Dependent on Crystal According to DSM-IV Criteria |
|------------------------------------|---|--|
| | % | % |
| Age Left Home | | |
| 15 or younger | 24.6 | 13.3 |
| 16–18 | 36.0 | 31.1 |
| 19 or older | 20.2 | 26.1 |
| Number of Cities Lived In | | |
| 1 | 23.3 | 28.6 |
| 2–4 | 29.6 | 22.6 |
| 5–9 | 23.8 | 37.5 |
| 10 or more | 33.3 | 28.6 |
| Current Housing Situation | | |
| Alone | 31.4 | 24.3 |
| With regular male sex partner | 21.9 | 14.2 |
| With female partner or family | 29.6 | 37.5 |
| With roommates or in rooming house | 23.8 | 29.2 |
| No permanent housing | 33.3 | 28.6 |
| Legal Marital Status | | |
| Single | 27.8 | 26.5 |
| Common law with same sex partner | 14.3 | 33.3 |
| Separated/widowed/divorced | 35.3 | 25.0 |

^a In total, 83/300 (27.7%) of the men used crystal in the past 90 days.

The number of cities a participant lived in was not a predictor of current crystal use. The proportion of men reporting crystal use in the past 90 days was highest for those who lived alone and those who had no permanent housing; however, dependence was highest in the group of men who lived with a female partner or family members. As a side note, not seen in the table, many of the men who lived with their female partner also sold sex for money or goods. A higher proportion of men who were separated, widowed, or divorced (35.3%) were current users of crystal when compared with other men. Dependence was lowest for this group at 25.0%, and highest for men who lived common-law with a same-sex partner (33.3%).

Sexual Orientation and Crystal Use

Table 3.4 indicates that the largest proportion of the men in the *Desired Effects* study who were current crystal users thought of themselves as gay (or homosexual). However, this group had the smallest proportion of men who were dependent on crystal. The highest level of dependence was seen in the men who thought of themselves as “other”; they were three times more likely to be dependent than those who saw themselves as gay. This was consistent with the results of the question about behavioural sexual orientation. In the *Desired Effects* study men were asked, “In terms of your sexual activity, which following statement best describes what you actually did over the past 5 years?” Men who reported having sex only with men were the most likely to use crystal and least likely to be dependent on it. Men who reported having sex equally with men and women had the greatest proportion of dependent users (60%).

Table 3.4
Participants’ Use of Crystal and Their Sexual Orientation

| Characteristic | Percent Using Crystal in Past 90 Days ^a | Percent of 90-Day Users Dependent on Crystal According to DSM-IV Criteria % |
|---|---|---|
| Self-Categorized Sexual Identity | | |
| Gay | 31.7 | 20.3 |
| Bisexual | 18.3 | 36.4 |
| Other | 22.9 | 62.5 |
| Behavioural Sexual Orientation (5 years) | | |
| Only sex with men | 30.8 | 21.1 |
| Sex mostly with men, occasionally women | 22.4 | 35.3 |
| Equally men and women | 26.3 | 60.0 |
| Mostly sex with women, occasionally men | 21.8 | 25.0 |

^a In total, 83/300 (27.7%) of the men used crystal in the past 90 days.

Attachment to, and Involvement in, the Gay Community and Crystal Use

Based on the results shown in Table 3.4, it would be expected that men who are the most involved in the gay community would show the largest proportion of current users and the smallest proportion of dependence. This was in fact the case. In Table 3.5 it can be seen that men who consider themselves to be “very attached” to the Toronto gay community, and men who attend gay bars, bathhouses, and circuit parties most frequently, showed the largest proportion of current crystal use. These two groups, however, were among the least likely to be dependent on crystal. The proportion of men who are dependent on crystal was greatest in the group of men who did not feel at all attached to the gay community and who attended bars and bathhouses 1–2 times per week (33.0%–38.0%) or not at all (37.5%). Of those who had never attended a bathhouse, 19.8% were current users; of those, 37.5% were dependent. On the other hand, although 29.4% of the men who reported never attending gay bars were current crystal users, none

was dependent on crystal. However, in Table 1.5 it can be seen that this group is very small: only 17 men reported that they hadn't been to gay bars.

Table 3.5
Participants' Use of Crystal and Their Attachment to, and Involvement with, the Gay Community

| Characteristic | Percent Using Crystal in Past 90 Days ^a | Percent of 90-Day Users Dependent on Crystal According to DSM-IV Criteria |
|---|--|---|
| | % | % |
| Attachment to Toronto Gay Community | | |
| None at all | 12.0 | 33.3 |
| Somewhat attached | 28.1 | 29.2 |
| Very attached | 37.7 | 20.7 |
| Frequency Attending Gay Bar(s) | | |
| Never | 29.4 | 0.0 |
| Less than once a month | 26.5 | 22.2 |
| 1 to 3 times a month | 17.1 | 30.8 |
| 1 to 2 times a week | 31.3 | 38.7 |
| 3 or more times a week | 30.1 | 16.0 |
| Frequency Attending Bathhouse(s) | | |
| Never | 19.8 | 37.5 |
| Less than once a month | 25.3 | 21.7 |
| 1 to 3 times a month | 34.6 | 22.2 |
| 1 to 2 times a week | 33.3 | 33.3 |
| 3 or more times a week | 35.7 | 20.0 |
| Frequency Attending Gay Circuit Parties, Past Year | | |
| Never | | |
| Less than once a month | 22.3 | 25.7 |
| 1 to 3 times a month | 33.8 | 27.9 |
| | 41.7 | 20.0 |

^a In total, 83/300 (27.7%) of the men used crystal in the past 90 days.

Crystal Use and the Use of Other Drugs

As the number of drug types being taken currently increased, so did the proportion of current crystal users and the proportion of men dependent on crystal. This suggests that crystal is not one of the first drugs tried by men, and as poly-drug use increases, so too does the chance that a man will try crystal, use it, and become dependent upon it. As can be seen in Table 3.6, the largest group of men (55) reported that they had used 5 types of drugs in the past 90 days. Similar numbers of men reported they were current users of 4 and of 6 types of drugs. Few of the men who currently used 4 to 6 drugs had tried crystal (7.8%–19.1%), and among them dependence on crystal was minimal (0%–5%).

The proportion of current crystal users increased dramatically between men who used 6 types of drugs (19.1%), seven types of drugs (40.5%) and 8 types of drugs (62.5%). All men who used 13 or more types of drugs were current crystal users. The proportion of men dependent on crystal did not make the same dramatic increase when men moved from taking 6 types of drugs to taking 7 types of drugs. The likelihood of dependence on crystal increased greatly for those using and remained high as the variety of drug types used increased.

Frequent heavy alcohol use² was not particularly related to crystal use; of those who drank heavily and frequently and used crystal, (33.3%) were dependent on crystal. Of current crystal users who were not heavy drinkers, 23.2% were dependent on crystal (see Table 3.6).

Table 3.6
Participants' Use of Crystal and Their Use of Other Drugs

| Number of Drug Types Used in the Past 90 Days (maximum possible=20) | Number of Participants in this Category | Percent Using Crystal in Past 90 Days ^a | | Percent of 90-Day Users Dependent on Crystal According to DSM-IV Criteria |
|---|---|--|------|---|
| | | n | % | |
| 1 | 0 | — | — | — |
| 2 | 6 | 0.0 | 0.0 | 0.0 |
| 3 | 39 | 2.6 | 0.0 | 0.0 |
| 4 | 51 | 7.8 | 0.0 | 0.0 |
| 5 | 55 | 9.1 | 5.5 | 5.5 |
| 6 | 42 | 19.1 | 0.0 | 0.0 |
| 7 | 37 | 40.5 | 5.4 | 5.4 |
| 8 | 16 | 62.5 | 25.0 | 25.0 |
| 9 | 25 | 68.0 | 12.0 | 12.0 |
| 10 | 8 | 62.0 | 37.5 | 37.5 |
| 11 | 12 | 91.7 | 41.7 | 41.7 |
| 12 | 5 | 60.0 | 0.0 | 0.0 |
| 13 | 2 | 100.0 | 50.0 | 50.0 |
| 14 | 2 | 100.0 | 50.0 | 50.0 |
| Frequent Heavy Alcohol Use ^b | | | | |
| No | 186 | 29.1 | 23.2 | 23.2 |
| Yes | 114 | 25.0 | 33.3 | 33.3 |

^a In total, 83/300 (27.7%) of the men used crystal in the past 90 days.

^b Men who reported frequent heavy use of alcohol indicated that they had consumed at least 5 standard drinks on an occasion at least once per week, or more often, over the 12 months prior to their interview.

Shown a slightly different way (see Table 3.7), it can be seen that men who used crystal at any point in their lives used an average of 3 more types of drugs than those who were not current users of crystal. The men in the *Desired Effects* survey had tried a large number of drugs during their lives, an average of 9 different types of drugs. A little more than

² Men who reported frequent heavy use of alcohol indicated that they had consumed at least 5 standard drinks on an occasion at least once per week or more often over the 12 months prior to their interview.

half of the participants (55%) had used crystal in their lifetime, and 45% had not used crystal. Although the mean number of drug types used in their lifetime was greater for those men who had used crystal (10.4) compared to those who hadn't (7.5), the range of number of drug types used was similar for both groups.

Table 3.7
Number of Drug Types (Excluding Crystal) Used by Participants During Their Lifetimes, by Crystal Use

| Used Crystal During Lifetime | Number of Participants | Mean | Range |
|------------------------------|------------------------|------|-------|
| No | 136 | 7.5 | 3–16 |
| Yes | 164 | 10.4 | 4–15 |
| Total Sample | 300 | 9.1 | 3–16 |

Patterns of Drug Use

An analysis was undertaken (called Factor Analysis) to see whether men who used crystal were more likely to use some of the other drugs we asked about and not others. The analysis examined the number of days each type of drug was used and looked for similarities in the patterns across drugs. The results of the analysis can be seen in Figure 3.1. The figure groups drugs that are commonly used by the same individuals with similar frequencies. Men who used crystal in the past 90 days were also likely to use cocaine, other amphetamines, ecstasy, GHB, and ketamine on a similar number of days during the time period. Men who used this pattern of party drugs were different than men who used mostly prescription drugs, steroids, more common drugs, only drugs with hallucinogenic effects, a poppers-and-crack combination, or primarily opioid drugs.

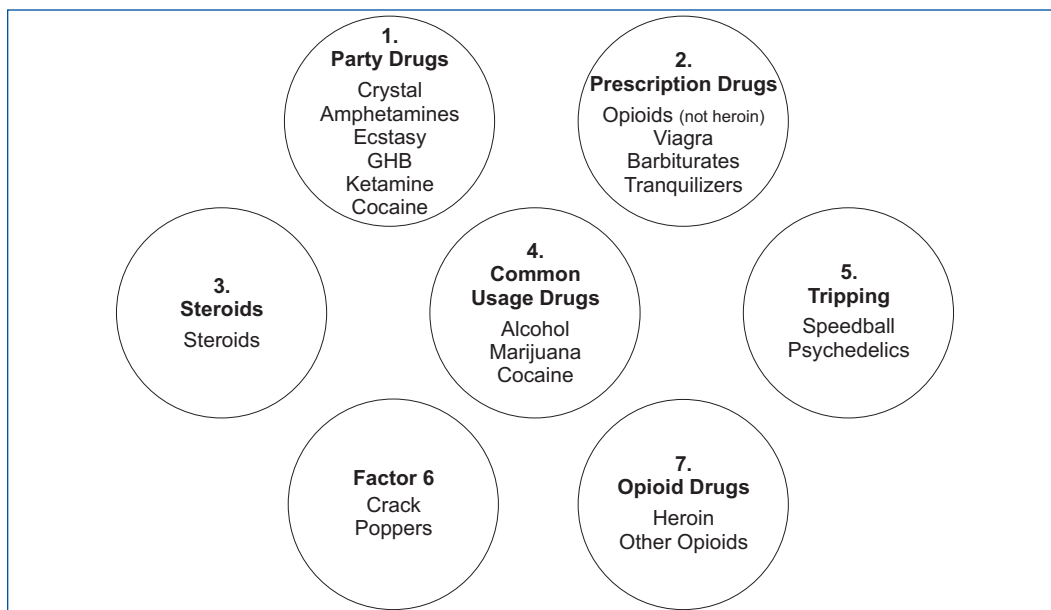


Figure 3.1
Drug Groupings Resulting from a Factor Analysis of the Number of Days Each Type of Drug Was Used in the Past 90 Days

Chapter 4.

Use of Drugs and the Participants' Expectations of Sexual Enhancement

This chapter presents information on the *Desired Effects* participants' attitudes and experiences with drugs and sexual behaviour. The men were asked a number of questions to determine their perceptions regarding how drug use enhanced sexual activity. In a separate question, the men were asked whether they had used each drug. If a participant had not used a drug, he was asked if he believed that drug would enhance his sexual activity.

Drugs Perceived by Participants to Enhance Their Sexual Activity

Men in the *Desired Effects* study were asked, "Regardless of whether you have used this drug, how would you expect this drug to affect your sexual experience?" They were asked to rate their expectations of the effects of 15 drugs on a scale of 0 to 4 with 0 being "much worse" and 4 being "much better"—that is, with the drug, the sexual experience would be much better or much worse.

Table 4.1
Participants' Perceptions about Drugs' Abilities to Enhance Sexual Ability

| | | Question: Regardless of whether you have used this drug or not, how would you expect this drug to affect your sexual experience? Would it make sex... | | | | |
|------|----------------------|---|-------|----------------|--------|-------------|
| | | Possible Responses ^a : | | | | |
| | | 0 | 1 | 2 | 3 | 4 |
| | | much worse | worse | about the same | better | much better |
| Rank | Drug | Mean Response | | | | |
| 1 | Viagra | 3.08 | | | | |
| 2 | Ecstasy | 2.91 | | | | |
| 3 | PAVA/PABA | 2.76 | | | | |
| 4 | Poppers | 2.70 | | | | |
| 5 | Marijuana | 2.53 | | | | |
| 6 | Cocaine | 2.26 | | | | |
| 7 | Crystal | 2.25 | | | | |
| 8 | GHB | 2.17 | | | | |
| 9 | Psychedelics | 2.08 | | | | |
| 10 | Alcohol | 1.97 | | | | |
| 11 | Special K | 1.80 | | | | |
| 12 | Opioids (not heroin) | 1.47 | | | | |
| 13 | Crack | 1.46 | | | | |
| 14 | Speedball | 1.29 | | | | |
| 15 | Heroin | 1.15 | | | | |

^a Actual responses ranged between 0 and 4 on all questions for both groups, where 0 = much worse and 4 = much better.

Participants expected GHB, psychedelics, and alcohol to have no effect on the sexual experience. Viagra was expected to enhance the sexual experience the most. Ecstasy, PAVA/PABA, and poppers also were expected to make sex better. Crystal was ranked as the seventh most likely drug to enhance sexual experiences; and participants thought it would enhance sex a small amount. Heroin was thought to be the drug most detrimental to sexual experiences, although participants thought several other drugs would also make sex worse (see Table 4.1).

Does Experience of Using Crystal Influence the Perceived Effect of Crystal?

The expectation of sexual enhancement after using crystal was assessed for men who had used crystal in the past 90 days, the past 12 months and ever (see Table 4.2). Men who were current users of crystal reported the highest expectation of sexual enhancement due to the drug (mean effect = 2.82). As time since past use increased the perceived benefit of crystal decreased (mean effect = 2.56 for those who had used within the past 12 months, mean effect = 2.36 for those who had used the drug more than a year ago). The mean for all groups of users indicated that they perceived crystal enhanced their sexual activity at least slightly. Men who had never used crystal indicated they expected crystal would make sex worse (mean effect = 1.65).

Table 4.2
Does Participants’ Perceived Effect of Crystal Differ Depending on Whether They Have Used the Drug in the Past?

| Participant Had Used Crystal | Mean Perceived Effect ^a |
|------------------------------|------------------------------------|
| In the past 90 days | |
| No | 1.96 |
| Yes | 2.82 |
| In past 12 months | |
| No | 1.82 |
| Yes | 2.56 |
| Ever | |
| No | 1.65 |
| Yes | 2.36 |

^a Responses ranged between 0 and 4 on all questions for both groups, where 0 = much worse and 4 = much better.

Reported Use of Crystal as a Sex Drug

If they had used crystal in their lifetime, *Desired Effects* participants were asked if they had used it in the past 90 days for the specific purpose of enhancing their sexual behaviour. Table 4.3 illustrates that only 39 of the men (23.8%) reported using crystal to enhance sex. More than a quarter of the 39 (28.2%) indicated that they were dependent upon the drug. Only 4.7 % of the men who had not used crystal as a sex drug were considered dependent.

Table 4.3
Reported Use of Crystal for the Purpose of Enhancing Sexual Behaviour in the Past 90 Days

| Used Crystal as a Sex Drug | Number of Participants | Percent Dependent on Crystal |
|----------------------------|------------------------|------------------------------|
| No | 125 | 4.7 |
| Yes | 39 | 28.2 |

N = 164 men who had tried crystal in their lifetime.

Patterns of Drug Use—Why Current Users Are Using Drugs

Participants were asked questions about why they used drugs. The results were analysed using a factor analysis to determine if participants gave common explanations for using drugs. Four main reasons were identified: for medication; for fun and celebration; for sexual enhancement; and for sociability.

How responses fit into the categories:

Medicinal/Escape

- Because I am addicted
- Getting high helps me forget my worries and problems
- I get high when I feel tense and nervous
- I get high to escape
- Because there is not anything else to do

Fun and Celebration

- Getting high is a good way to celebrate
- I like the feeling of getting high
- I get high to cut loose and go wild
- It helps me to relax
- It helps me to enjoy a party
- To enhance the music
- Because it is fun

Sexual Enhancement

- So I can expand my sexual limits
- So I can have more pleasurable sex
- So I don't have to worry about using a condom during sex
- So I can be more comfortable sexually

Sociability

- To be liked
- It is what most of my friends do when we get together
- Getting high gives me more confidence
- To be sociable
- So I will not feel left out

Table 4.4 displays the results of the factor analysis summarizing the four main reasons men used drugs in the 90 days prior to the *Desired Effects* study. “Fun and celebration” was the most frequent reason men reported for their current use of drugs. Sexual enhancement and sociability were the least important.

Table 4.4
Mean Scores Resulting from a Factor Analysis of the Participants’
Reported Reasons for Using Drugs in the Past 90 Days ^a

| Factor | Mean Score ^b |
|------------------------|-------------------------|
| 1. Medicinal/Escape | 1.38 |
| 2. Fun and celebration | 2.10 |
| 3. Sexual enhancement | 1.18 |
| 4. Sociability | 1.10 |

^a Total number of participants is 300.

^b Actual participants’ responses covered the full range from 0 to 3, where 0 = not a reason for using drugs, and 3 = a very important reason for using drugs, except for fun and celebration where the actual range was 0.17 to 3.

Association between Reasons for Using Drugs and the Participant’s Use of Crystal

The questions were asked about drug use in general, so it was not possible to examine why the men used a particular drug, for example crystal. To see if there were any differences in reasoning between users and non-users of crystal in the 90 days before the survey, the four main reasons were examined separately; then the results of current crystal users (27.7% of the participants) were compared with results of men who were not current users. As seen in Table 4.5, current users used drugs for fun and celebration. Non-users of crystal did not place as much importance on this factor. Crystal users also indicated that they used drugs for sociability more than did non-users of crystal. There was little difference between the responses of men who were and who were not current crystal users for medicinal/escape reasons or for sexual enhancement.

How Drugs Make Men Feel Sexually

To understand how men think drugs influence sexual interactions, we asked participants to agree or disagree with a number of sexual statements (one equalled strongly disagree with the statement, and four equalled strongly agree). Once again, the questions were asked only about drugs in general, and not about any specific drug or drug type. A sample question is: “When I am drunk or high, I feel more attractive. Do you strongly disagree, disagree, agree or strongly agree with this statement?” A factor analysis was run on the answers to determine if any common themes emerged. Four themes did emerge, and the participant responses were categorized into four groups: sexual facilitation, crossing borders, more intercourse, and less sexual/less sexually attractive.

Table 4.5
Association between Reasons for Using Drugs and Participants' Use of Crystal

| Reason for Using Drug | Mean Score ^a |
|------------------------------|--------------------------------|
| Medicinal/Escape | |
| Used crystal in past 90 days | |
| No | 1.37 |
| Yes | 1.40 |
| Fun and Celebration | |
| Used crystal in past 90 days | |
| No | 2.04 |
| Yes | 2.24 |
| Sexual Enhancement | |
| Used crystal in past 90 days | |
| No | 1.14 |
| Yes | 1.24 |
| Sociability | |
| Used crystal in past 90 days | |
| No | 1.06 |
| Yes | 1.23 |

^a Actual participants' responses covered the full range from 0 to 3, except for fun and celebration, where the range for men who had not used crystal was 0.17 to 3, as opposed to 0.86 to 3 for men who had used crystal in the past 90 days.

How responses fit into the categories:

Sexual Facilitation

- I feel more attractive
- I find it easier to approach/meet sex partners
- I tend to look for casual male sex partners
- [Being drunk/high] makes me more comfortable sexually
- I often feel more sexual
- I am more sexually responsive

Crossing Boundaries

- I am more likely to have sex with people I ordinarily would not have sex with
- I am more likely to do sexual things I usually would not do
- I will do anything with anyone
- I find it difficult to stay within my sexual limits

More Intercourse

- I am more likely to want to fuck
- I am more likely to want to be fucked

Less Sexual/Less Sexually Attractive

- I cannot get a hard-on
- I feel less attractive

Results of the factor analysis of how sexual drugs made men feel are displayed in Table 4.6. If 2.5 is considered to indicate that a participant neither agreed nor disagreed with a set of statements, it can be seen that participants slightly agreed that drugs were useful for sexual facilitation and promoted the desire for intercourse. The participants slightly disagreed that taking drugs made them more likely to cross sexual boundaries they would otherwise not cross. They did not think drugs made them less attractive sexually.

Table 4.6
Mean Scores Resulting from a Factor Analysis of Participants' Reports on How Drugs Make the Participants' Feel Sexually^a

| Factor | Mean Score^b |
|---|-------------------------------|
| 1. Sexual Facilitation | 2.75 |
| 2. Crossing Boundaries | 2.08 |
| 3. More Intercourse | 2.62 |
| 4. Less Sexual/Less Sexually Attractive | 1.93 |

^a Total number of participants is 300.

^b Responses ranged between 1 and 4 on all questions, where 1 = strongly disagree and 4 = strongly agree.

Table 4.7
Association between How Drugs Make Participants Feel Sexually and the Participants' Use of Crystal

| Reason for Using Drug | Mean |
|---|-------------|
| Sexual Facilitation | |
| Used crystal in past 90 days | |
| No | 2.70 |
| Yes | 2.86 |
| Cross Boundaries | |
| Used crystal in past 90 days | |
| No | 2.04 |
| Yes | 2.18 |
| More Intercourse | |
| Used crystal in past 90 days | |
| No | 2.58 |
| Yes | 2.72 |
| Less Sexual/Less Sexually Attractive | |
| Used crystal in past 90 days | |
| No | 1.88 |
| Yes | 2.06 |

^a Responses ranged between 1 and 4 on all questions for both groups, where 1 = strongly disagree and 4 = strongly agree.

Association between How Drugs Make the Participant Feel Sexually and the Participant's Use of Crystal

Using the categories described in the previous section, a comparison was made between the responses of current crystal users and participants who were not current users. Again, since the questions were asked of drug use in general, it was not possible to examine whether it was crystal that men were referring to when they agreed or disagreed with the statements. However, although none of the differences is very large, current crystal users were more likely to agree with each of the statements than were non-users. For example, current crystal users felt slightly more strongly that drugs help with sexual facilitation. On average, the crystal-using men did not agree that drugs can make them cross sexual boundaries and make them participate in actions they would not otherwise participate in (mean score = 2.18, which is lower than the 2.5 score required to agree with the statement).

Chapter 5.

Association between Crystal Use and Health

This chapter presents information about various aspects of the health of *Desired Effects* study participants. The men in the study were asked a number of questions related to their health status and social relationships. By health, the survey referred not only the absence of disease or injury but also physical, mental, and social well-being. The association between participants' experience of health and their involvement in sex work and use of crystal also is presented. Comparisons to the *OMS* are made where possible.

Health Status

Desired Effects participants were asked how they rated their current health status, compared to other people of their own age. The majority of the men, 250 out of 300, reported that their health was good, very good, or excellent. Only 2.7% of the group reported poor health (see Table 5.1). Men were asked specifically whether they had been told by a doctor that they had any of the following infections: oral gonorrhoea, rectal gonorrhoea, penile gonorrhoea, chlamydia, general or anal warts, syphilis, herpes, hepatitis A, hepatitis B, hepatitis C, or another sexually transmitted infection. (Hepatitis is transmissible by means other than sexual contact. Questions about hepatitis were combined with questions about sexually transmitted infections [STIs] for ease of questionnaire flow.) If a man reported a diagnosis of any of the 11 named conditions, his

Table 5.1
Health Indicators: Comparison of the *Desired Effects* and the *OMS* (Toronto) Studies

| Characteristic | Desired Effects Study N=300 % | OMS Toronto Region N=2,428 % |
|---|-------------------------------------|---------------------------------------|
| Health Status ^a | | |
| Poor | 2.7 | |
| Fair | 12.9 | |
| Good | 24.0 | |
| Very good | 32.4 | |
| Excellent | 28.0 | |
| Sexually Transmitted and Other Infections (past 12 months) | | |
| No | 83.7 | 95.1 |
| Yes | 16.3 | 8.7 |
| Current HIV Status—Self Reported | | |
| HIV positive | 22.3 | 9.9 |
| HIV negative | 68.3 | 63.4 |
| Don't know ^b | 9.3 | 26.7 |

^a Compared to other people of the same age. *OMS* (Toronto) did not assess health status.

^b No test, or test result was inconclusive.

response was coded as “Yes.” Table 5.1 shows that, over a 12-month time period, the rate of infection among the men in the *Desired Effects* study (16.3%) was roughly double that seen in the Toronto region of the *OMS* (8.7%).

The men were also asked to report on their HIV status. Similar proportions of men in both studies reported being HIV negative, as seen in Table 5.1. A larger proportion of the *Desired Effects* men reported being HIV positive (22.3%) than in the *OMS* (9.9%); however, the number of uncertain answers was much smaller in the *Desired Effects* study than in the *OMS*.

Sexually Transmitted Infections and Hepatitis

In both studies, men were asked about the specific STIs and types of hepatitis they had been diagnosed with, within their lifetimes and within the past 12 months. The rate of infection over the past 12 months for the men in the *Desired Effects* study was almost twice that of men in the Toronto region of the *OMS*, as can be seen in Table 5.2. However, lifetime reports of STIs did not show quite as large a discrepancy between the groups (49% and 32%).

Table 5.2
Sexually Transmitted and Other Infections Reported by Men in the *Desired Effects* and the *OMS* (Toronto) Studies

| Sexually Transmitted and Other Infections ^a | Desired Effects Study N=300 | | OMS Toronto Region N=2,428 | |
|--|--------------------------------|---------------|-------------------------------|---------------|
| | Past 12 months % | Lifetime % | Past 12 months % | Lifetime % |
| Any STI or hepatitis diagnosis | 16.3 | 49.0 | 8.7 | 31.8 |
| Specific infections | | | | |
| Oral gonorrhoea | 1.3 | 5.0 | 1.3 | 5.0 |
| Rectal gonorrhoea | 1.3 | 6.7 | 0.8 | 3.2 |
| Penile gonorrhoea | 4.0 | 24.0 | 2.3 | 11.2 |
| Chlamydia | 4.4 | 6.1 | 2.1 | 6.3 |
| Genital or anal warts ^b | 5.0 | 19.7 | 2.6 | 11.2 |
| Syphilis | 1.0 | 6.7 | 0.6 | 4.5 |
| Herpes | 2.0 | 7.0 | 0.7 | 3.6 |
| Hepatitis A | 1.0 | 11.4 | 0.9 | 6.4 |
| Hepatitis B | 1.7 | 4.5 | 0.8 | 6.6 |
| Hepatitis C | 2.0 | 10.1 | 0.7 | 4.7 |
| Other ^c | 1.0 | 4.7 | 0.9 | 3.3 |

^a Hepatitis A, B and C may be acquired sexually or by other means.

^b Genital warts are caused by the presence of certain strains of the Human Papilloma Virus (HPV).

^c The “other” category includes: scabies, parasites, yeast infections, epididymitis and crabs.

In the past 12 months, penile gonorrhoea, chlamydia, and genital/anal warts were reported most commonly by the *Desired Effects* participants (4.0–5.0%) and the *OMS* participants (2.1–2.6%). For these infections and for herpes, hepatitis B, and hepatitis C, the rates of infection among the *Desired Effects* men were double those of the *OMS* men. For other infections there was little difference between the study groups.

Lifetime reports of penile gonorrhoea, genital/anal warts, hepatitis A, and hepatitis C were highest amongst the *Desired Effects* men; penile gonorrhoea was clearly the most common at 24.0%, and the others ranged from 10.1%–19.7%. Men in the *OMS* reported similar results, although the rates were, once again, much lower. However, *OMS* participants were more likely to report having hepatitis A & B, rather than A & C, as seen in the *Desired Effects* study. For both groups, hepatitis A, B & C may have been acquired sexually or by other means.

Sex Work

Men in both studies were asked whether they had sold or bought sex during the previous 12 months, and if they indicated yes, whether payment was via money, goods (for example, shelter, clothing, drugs), or both (see Table 5.3). The majority of participants in both studies had not sold or bought sex. Differences between the two studies were most apparent when comparing the proportions of men who had sold sex for goods, money, or both. Less than 10% of the *OMS* sample had sold sex for goods and/or money; 14.3% of the *Desired Effects* group had sold sex for both; an additional 7.7% sold sex for goods alone, and 6.0% for money alone.

Table 5.3
Involvement in Sex Work Reported by Men in the *Desired Effects* and the *OMS* (Toronto) Studies

| Characteristic | Desired Effects Study N=300 % | OMS Toronto Region N=2,428 % |
|---|--|---------------------------------------|
| Sex work: sold sex for ... (past 12 months) | | |
| Neither | 72.0 | 89.0 |
| Goods | 7.7 | 2.0 |
| Money | 6.0 | 4.7 |
| Both | 14.3 | 3.3 |
| Sex work: bought sex for ... (past 12 months) | | |
| Neither | 82.7 | 88.7 |
| Goods | 8.0 | 2.8 |
| Money | 4.7 | 6.2 |
| Both | 4.7 | 2.3 |

Similar proportions of men from each study reported not buying sex in the past 12 months. Table 5.3 shows that fewer of the *Desired Effects* men reported buying sex than selling it; there was no such discrepancy among the *OMS* men. As well, *Desired Effects* participants were most likely to have paid for sex with goods; *OMS* participants were most likely to have paid for sex with money. The study sample from the *Desired Effects* study reached a different and perhaps broader spectrum of participants, based on their involvement with sex work,

Health Status and Crystal Use

STI experience and HIV status are associated with the current use of crystal; however, there is no clear association between self-reported health status and crystal use. About a third of the men who reported their health status as good, used crystal in the past 90 days (35.2%). This was more than all other self-reported levels of health status (see Table 5.4). However, men who reported their health status to be good or fair were more likely to be dependent on crystal than men who rated their health as very good or excellent. Interestingly, none of the current users who reported poor health were dependent on crystal.

Table 5.4
Health Status by Crystal Use

| Characteristic | Percent Using Crystal, Past 90 Days % | Percent Dependent on Crystal According to DSM-IV Criteria % |
|--|---|--|
| Health Status ^a | | |
| Poor | 12.5 | 0.0 |
| Fair | 23.7 | 33.3 |
| Good | 35.2 | 32.0 |
| Very Good | 23.9 | 9.1 |
| Excellent | 27.7 | 8.7 |
| Sexually Transmitted Infection (Past 12 months) | | |
| No | 23.7 | 27.4 |
| Yes | 42.8 | 23.8 |
| Current HIV Status | | |
| HIV Positive | 41.8 | 21.4 |
| HIV Negative | 24.4 | 28.0 |
| Don't know ^b | 17.9 | 40.0 |

^a Compared to other people of the same age.

Sexually Transmitted Infections, Hepatitis and Crystal Use

Overall, 16.3% of the men in the *Desired Effects* study reported being diagnosed with a STI (including hepatitis) in the 12 months prior to the study. The rate was higher for current crystal users (25.3%) than for men who had not used crystal in the 90 days before the study (12.9%). If we look at crystal use by STI status (as seen in Table 5.4), we can see that the proportion of men who reported an STI and were current users (42.8%) was much higher than the proportion of men who did not report an STI (23.7%). But men who did not have an STI (27.4%) were more likely to be dependent on crystal than those who did (23.5%).

If we look at both crystal use and diagnosis of STIs over the 12 months prior to the survey, we see that crystal users were more likely to report having an STI, and they also reported being diagnosed with more types of STIs during the year on average (see Table 5.5). (The types of STIs asked about are listed in Table 5.2.) On average, men who had not used crystal during the year were diagnosed with fewer STIs per year (0.24 STIs) than men who had used crystal (0.43 STIs) when men with no diagnosed STIs are included in the calculation. However, if the average is only taken for men who reported having one or more STIs diagnosed, we see that men who didn't use crystal reported having more STIs than men using crystal. Thus men who used crystal were at greater risk of getting an STI, but once that risk is considered the risk of further STIs is not higher for them.

Table 5.5
Experience of Sexually Transmitted Infections by Use of Crystal in the Past 12 Months

| Use of Crystal in the Past 12 Months | Experience of STIs in the Past 12 Months | | |
|--|--|--|---|
| | Percent of Participants Experiencing at Least One STI | Mean Number of STIs Experienced (all participants) | Mean Number of STIs Experienced (only participants who reported having at least one STI) |
| | % | Mean | Mean |
| No | 11.4 | 0.24 | 1.43 |
| Yes | 25.2 | 0.43 | 1.31 |
| Total sample | 16.3 | 0.31 | 1.37 |

HIV Status and Crystal Use

HIV status also was related to crystal use. While 22.3% of the men in the study reported being HIV-positive, the HIV rate was higher for men who were current crystal users (33.7%) than those who were not (18.0%). Further, HIV-positive men were most likely to use crystal, but least likely to report being dependent upon it. Specifically, if we look at crystal use by HIV status (as seen in Table 5.4), a much higher proportion of HIV-positive men were current users (41.8%) than HIV-negative men (24.4%). Twenty-eight percent of HIV-negative men reported being dependent upon crystal compared to only 21.4% of HIV positive men.

The main hypothesis in the literature has been that crystal use leads to increased participation in unprotected intercourse and is fuelling a new epidemic of HIV infection among MSM. A glance at the results in Table 5.4 combined with the finding that current crystal users were more likely to be HIV-positive might give credence to this hypothesis. However, Table 5.4 does not tell us what came first, the HIV or the crystal use; nor does it tell us whether unsafe sex occurred while people under the influence. This study cannot address the issue of whether crystal use directly led to seroconversion of the men participating in the study. However, Table 5.6 does address the timing of the men's HIV-positive test and their initiation of crystal use. Just less than one-third of the HIV-positive participants had never used crystal in their lifetimes (28.4%). Those who had tried crystal were almost evenly split between receiving their HIV-positive test *before* starting crystal and receiving their HIV-positive test *after* starting crystal. Thus there is no clear evidence of crystal use before seroconversion for the majority of the HIV-positive men in the study.

Table 5.6
Crystal Use and Date of First HIV-Positive Test

| Date of HIV-Positive Test | n | % |
|---------------------------------|----|------|
| Prior to first use of crystal | 23 | 34.3 |
| After first use of crystal | 25 | 37.3 |
| No crystal used in lifetime | 19 | 28.4 |
| Total HIV-positive participants | 67 | 100% |

Table 5.7
Sex Work and Crystal Use

| Characteristic | Percent Using Crystal Past 90 Days % | Percent Dependent on Crystal According to DSM-IV Criteria % |
|---|--------------------------------------|---|
| Sex work: sold sex for...(past 12 months) | | |
| Neither | 26.4 | 21.1 |
| Goods | 17.4 | 25.0 |
| Money | 22.2 | 50.0 |
| Both | 41.9 | 38.9 |
| Sex work: bought sex for...(past 12 months) | | |
| Neither | 27.8 | 26.1 |
| Goods | 25.0 | 33.3 |
| Money | 21.4 | 33.3 |
| Both | 35.7 | 20.0 |

Sex Work and Crystal Use

As seen in Table 5.3, men in the *Desired Effects* study were asked whether they had sold or bought sex during the previous 12 months. The results were also reviewed by crystal use, as seen in Table 5.7. The analysis reveals that men who sold sex for both goods and money were most likely to be current crystal users: 41.9% of the men who had sold sex for both goods and money were current users of crystal, and only 26.4% of the men who had not sold sex in the past 12 months were current users. Of the men who did use crystal, dependence was highest among those who sold sex for money (50.0%) and for both goods and money (38.9%). Similarly, men who reported buying sex in the 12 months prior to the study were also more likely to be current crystal users than were other men.

Chapter 6.

Association between Crystal Use and Sexual Behaviour

Desired Effects participants were asked about their sexual activity with male partners, female partners, and clients. Men were asked about their participation in specific types of sexual activities only during the 90 days prior to the interview. While 12% of the men reported having at least one female partner, and 28% reported having sold sex in the 90 days before their interview, only sex with male partners will be presented here, as all men had sexual contact with at least one non-client male partner within that time period. For the sex questions, participants were given the choice whether they wanted these questions to be asked in polite and technical language (for example, receptive anal intercourse) or common or street language (for example, got fucked). The majority of participants preferred common or street language. Chapter 6 reports the men's participation in anal intercourse, specifically unprotected anal intercourse. It compares the sexual activity of the *Desired Effects* participants to the *OMS* Toronto region study participants. Finally, the chapter summarizes associations between the use of a variety of drugs and unprotected anal intercourse.

Anal Intercourse and Unprotected Sex with Male Partners

Men interviewed for the *Desired Effects* study were asked questions about their participation in a number of specific sexual activities with male partners. The same questions were asked about a casual partner, regular partner and any male partner. For the purpose of this study a casual partner was defined as a partner with whom a man has had sexual contact on only one occasion. If there was any repeat sexual contact with the partner, he was defined as a regular partner. All the men interviewed had some sexual contact with other men; 88.7% reported having anal intercourse with at least one man in the 90 days prior to the interview, and 47.7% of the men did so without the use of a condom on at least one occasion (see Table 6.1). While this will be called unsafe sex for the duration of the report, it must be noted that 47 men (15.6%) indicated that they did have some form of negotiated safety agreement with their partner(s) indicating that either there would be no sex, no anal intercourse, or no unprotected anal intercourse outside their partnership. The vast majority of *Desired Effects* participants (83.3%) had sexual contact in the previous 3 months with both casual and regular partners. Unprotected anal intercourse occurred slightly less frequently with casual partners (25.0%) than with regular partners (39.3%).

Comparison of *Desired Effects* Study and Toronto *OMS* Participants: Participation in Anal Intercourse and Unprotected Sex

Participants in the *OMS* were asked the same questions regarding sexual activity, with the same partner definitions, as the men in the *Desired Effects* study. More *Desired Effects* men (88.7%) than *OMS* men (72.2%) reported participating in anal intercourse,

Table 6.1
Participation in Anal Intercourse and Unprotected Sex with Male Partners
by *Desired Effects* Participants in the Past 90 Days

| Sexual Act | % of Desired Effects Participants |
|---|--|
| Any Male Partner(s) | |
| Anal intercourse | 88.7 |
| Unprotected anal intercourse | 47.7 |
| Casual Male Partner(s) ^a | |
| Any sexual contact | 87.3 |
| Anal intercourse | 72.7 |
| Unprotected anal intercourse | 25.0 |
| Regular Male Partner(s) ^a | |
| Any sexual contact | 85.0 |
| Anal intercourse | 76.7 |
| Unprotected anal intercourse | 39.3 |

^a A "Casual Male Partner" is a man the participant has had sexual contact with on only one occasion.

A "Regular Male Partner" is a man the participant has had sexual contact with on more than one occasion.

Table 6.2
Comparison of *Desired Effects* and *OMS* (Toronto) Study Participants: Participation in Anal Intercourse and Unprotected Sex in the Past 90 Days

| Sexual Act | Desired Effects Study N=300 % | OMS Toronto Region N=2,428 % |
|---|--|---|
| Any Male Partner(s) | | |
| Anal intercourse | 88.7 | 72.2 |
| Unprotected anal intercourse | 47.7 | 30.2 |
| Casual Male Partner(s) ^a | | |
| Anal intercourse | 72.7 | 58.7 |
| Unprotected intercourse | 25.0 | 18.9 |
| – Insertive | 19.7 | 12.8 |
| – Receptive | 16.0 | 10.0 |
| Regular Male Partner(s) ^a | | |
| Anal intercourse | 76.7 | 55.5 |
| Unprotected intercourse | 39.3 | 29.7 |
| – Insertive | 29.3 | 19.5 |
| – Receptive | 28.6 | 16.1 |

^a A "Casual Male Partner" is a man the participant has had sexual contact with on only one occasion.

A "Regular Male Partner" is a man the participant has had sexual contact with on more than one occasion.

and a higher proportion also indicated that they had done so without using a condom (47.7% and 39.2%) (see Table 6.2). In all categories, *Desired Effects* men were more active sexually than *OMS* men. They reported more unprotected intercourse, both insertive and receptive, with regular and casual partners. In general, the *Desired Effects* study recruited a group of men whose sexual behaviour was more risky than the *OMS* recruited.

Association between Current Drug Use and Participation in Unprotected Anal Intercourse

Table 6.3 presents information regarding the likelihood of a current user of drugs having unprotected intercourse. The *unadjusted OR* (odds ratio) indicates the odds of a person having unsafe sex if that person used a particular drug, for example, crystal, in the past 90 days, irrespective of what other drugs the person may also have used during the same period. The *adjusted OR* indicates the odds of a person having unsafe sex if that person used a particular drug, for example, crystal, in the past 90 days, considering all other drugs that person had used during the same period. There will be differences between the unadjusted and adjusted odds for each partner type.

Unprotected Intercourse with a Regular Partner

As noted in Table 6.3, men who used crystal were nearly four times more likely to have unsafe sex with a regular partner than were non-crystal users, when not considering other drugs. However, once other drugs were considered, the likelihood decreased somewhat—men who used crystal were only three times more likely to have unsafe sex than were non-crystal users. The asterisk in the table indicates that this is still an important increase in the likelihood of participating in unprotected intercourse. That said, study findings do not indicate that crystal causes unsafe sex; the study questions did not ask about drug use *at the time of sex*. The result instead indicates that people who used crystal were more likely to have unsafe sex with a regular partner than those who did not.

Independently, the use of crystal, ecstasy, GHB, Special K, poppers, and Viagra were all associated with unprotected intercourse with regular partners. However, once all other drugs were controlled for, only crystal, crack, and ecstasy were associated with unsafe sex with regular partners; and crystal was the drug most strongly associated with unsafe sex.

Unprotected Intercourse with a Casual Partner

Independently, the use of crystal, GHB, poppers, and Viagra were associated with participation in unsafe sex with a casual partner. In particular, men who used crystal in the 90 days prior to the survey were 3.6 times as likely to have unsafe sex with a casual partner during that time, compared to men who had not used crystal. When the use of all other drugs was controlled for, crystal users were still 2.5 times more likely to have unsafe sex with a casual partner as non-crystal users, and men who used Viagra and poppers were also more likely to have unsafe sex than those who did not use them.

Table 6.3
Association between Drug Use in the Past 90 Days and Participation in Unprotected Anal Intercourse with Regular and Casual Partners

| Drugs Used in Past 90 Days | Participation in Unprotected Anal Intercourse by Partner Type | | | |
|-------------------------------|---|--------------------------------------|--|--------------------------------------|
| | Regular Partner(s) ^a (n=255) | | Casual Partner(s) ^a (n=262) | |
| | Unadjusted OR (95% CI) | Adjusted OR (95% CI) ^b | Unadjusted OR (95% CI) | Adjusted OR (95% CI) ^b |
| Crystal | 3.94 (2.19 – 7.06) * | 3.18 (1.54 – 6.57) * | 3.62 (2.03 – 6.44) * | 2.52 (1.17 – 5.40) * |
| Alcohol | 1.36 (0.51–3.63) | 1.46 (0.49 – 4.36) | 1.79 (0.49 – 6.48) | 1.42 (0.35 – 5.72) |
| Marijuana | 0.56 (0.26 – 1.23) | 0.54 (0.23 – 1.29) | 1.94 (0.77 – 4.91) | 2.06 (0.73 – 5.83) |
| Cocaine | 1.31 (0.79 – 2.17) | 0.79 (0.42 – 1.49) | 1.67 (0.95 – 2.92) | 1.30 (0.64 – 2.65) |
| Crack | 1.47 (0.84 – 2.59) | 2.29 (1.14 – 4.59) * | 1.16 (0.63 – 2.11) | 1.33 (0.64 – 2.80) |
| Other amphetamines | 1.05 (0.49 – 2.20) | 0.86 (0.34 – 2.23) | 0.67 (0.28 – 1.62) | 0.38 (0.12 – 1.21) |
| Ecstasy | 2.06 (1.24 – 3.43) * | 2.09 (1.02 – 4.27) * | 1.35 (0.78 – 2.33) | 1.53 (0.65 – 3.62) |
| GHB | 2.03 (1.08 – 3.82) * | 0.87 (0.38 – 2.00) | 1.94 (1.04 – 3.61) * | 1.77 (0.71 – 4.42) |
| Special K | 2.11 (1.28 – 3.50) * | 1.26 (0.61 – 2.59) | 1.26 (0.74 – 2.16) | 0.51 (0.21 – 1.24) |
| Heroin | 1.83 (0.63 – 5.31) | 2.81 (0.79 – 9.99) | 1.71 (0.59 – 5.01) | 2.27 (0.56 – 9.24) |
| Speedball | 2.38 (0.21 – 26.6) | 5.17 (0.32 – 83.75) | 1.25 (0.11 – 14.0) | 0.89 (0.05 – 15.9) |
| Opioids (not heroin) | 0.96 (0.55 – 1.66) | 1.12 (0.54 – 2.32) | 1.20 (0.66 – 2.18) | 1.51 (0.68 – 3.38) |
| Psychedelics | 0.79 (0.47 – 1.35) | 0.69 (0.35 – 1.36) | 1.09 (0.61 – 1.95) | 1.00 (0.48 – 2.09) |
| Poppers | 1.73 (1.04 – 2.88) * | 1.82 (0.98 – 3.38) | 3.71 (1.94 – 7.09) * | 4.15 (1.90 – 9.06) * |
| Viagra | 2.40 (1.26 – 4.57) * | 1.70 (0.80 – 3.61) | 3.09 (1.64 – 5.83) * | 2.24 (1.06 – 4.74) * |
| PAVA/PABA | 3.68 (0.73 – 18.57) | 2.34 (0.39 – 14.24) | 3.46 (0.75 – 15.8) | 0.93 (0.16 – 5.37) |
| Steroids | 10.98 (0.58 – 206.14) | – | 2.53 (0.35 – 18.3) | 1.10 (0.11 – 8.98) |
| Barbiturates | 1.59 (0.35 – 7.27) | 1.51 (0.24 – 9.69) | 1.25 (0.22 – 6.99) | 0.87 (0.11 – 7.31) |
| Tranquilizers | 0.78 (0.45 – 1.36) | 0.56 (0.28 – 1.11) | 1.07 (0.60 – 1.95) | – |

^a A “Casual Male Partner” is a man who the participant has had sexual contact with on only one occasion.

A “Regular Male Partner” is a man who the participant has had sexual contact with on more than one occasion.

^b Adjusted for all other types of drugs used.

* There is a significant association between the drug and participating in unprotected intercourse.

Since all men who participated in this study used multiple drugs, rather than just one drug, it is important to consider the adjusted odds ratio. However, we also must keep in mind that people who used crystal also were most likely to use other “party” drugs, such as ecstasy, GHB, Special K, cocaine, and other amphetamines. Since most of these drugs are associated with a trend towards unsafe sex, it may be lifestyle factors that account for the association between crystal and unprotected intercourse; there may be no direct causation.

The Difference between Dependent and Non-Dependent Use of Crystal and Its Relation to Unprotected Anal Intercourse

Table 6.4 differentiates between who were dependent and non-dependent crystal in the 90 days prior to the *Desired Effects* interview, and describes their participation in unprotected anal sex (adjusting for use of all drugs listed in the table). Non-dependent crystal users were approximately four times more likely to have unprotected sex with

regular partners (4.4 times as likely) and casual male partners (3.9 times as likely). Dependence on crystal was not associated with increased participation in unprotected intercourse with either partner type. This finding is similar to that seen with STIs and HIV status; use, not dependence, is associated with sexual risk and unhealthy sexual outcomes.

Table 6.4
Differentiation between Current Use of and Dependence on Crystal and the Association with Participation in Unprotected Anal Intercourse with Regular and Casual Partners, Controlling for the Use of Other Drugs

| Drugs Used in Past 90 Days | Participation in Unprotected Anal Intercourse by Partner Type | |
|----------------------------|--|---|
| | Regular Male Partner(s) ^a Adjusted OR (95%CI) ^b | Casual Male Partner(s) ^a Adjusted OR (95%CI) ^b |
| Used Crystal | 4.44 (2.20–8.94) * | 3.93 (2.00–7.76) * |
| Dependent on Crystal | 1.80 (0.66–4.95) | 1.10 (0.38–1.15) |
| Crack | 1.89 (1.10–3.52) * | – |
| Ecstasy | 1.77 (1.00–3.12) * | – |
| Poppers | – | 2.87 (1.45–5.68) * |
| Viagra | – | 2.17 (1.09–4.33) * |

^a A “Casual Male Partner” is a man who the participant has had sexual contact with on only one occasion.

A “Regular Male Partner” is a man who the participant has had sexual contact with on more than one occasion.

^b Adjusted for all other types of drugs used.

* There is a significant association between the drug and participating in unprotected intercourse.

Part III:
Summary & Discussion

Implications of the Research

For the past half decade there has been expressed concern across Canada and internationally about the increased use of Crystal Methamphetamine. The concern raised by politicians, the media and community service providers primarily has been reflected in the major urban areas such as Toronto and Vancouver. More recently, concern about the use of this drug has been raised in smaller urban communities.

The initial perception in Toronto was that this drug was associated with poly-drug use, and popular in the gay club scene. Concern is largely focused on its widespread use and availability, the addictive properties of the drug, and the belief that the use of this drug in particular may lead to the downward spiral of youth. Throughout North America, the association of the drug with the gay community perhaps has received greater attention because of its perceived contribution to the ongoing or increasing sexual risk-taking behaviour of this population.

The Study

Data on crystal use within a segment of the gay community were collected as part of a larger study of drug use, namely the *Desired Effects* study. These data were collected in 2003, a time which coincided with the reported increase in availability and popularity of the drug. Since that time there has been a reported increase in use, and more concern has been expressed.

This study of poly-drug users was undertaken with an interest in understanding broader issues related to drug use in the gay community, drug use careers, the routes to drug dependence or addiction, and relationships between drug use and unsafe sex. The study presents some unique and important insights. When developing the study, initially it was thought to be important to focus on heavy drug users. However, because of the different properties of drugs, this concept was not an easy one to operationalize, and the concept of poly-drug use was chosen as a focus for the recruitment of the study population, and as a major consideration in the analysis. Further, we recruited a highly sexually active population—largely a result of the eligibility criteria for entrance into the study.

The purposive sampling undertaken to achieve the study objectives led to the recruitment of a population that would not normally be highlighted with a random or venue-based community sample commonly used to estimate HIV prevalence and associated risk behaviour in the gay community. The population that was recruited was generally less educated, from a younger age group, reported lower income levels and less full-time employment—with a greater proportion being retired or on disability and pension than in studies with a broader community sample. The majority of men identified themselves as gay (68.2%), but a larger proportion of the study population were bisexual (20.1%) than those recruited in previous studies. While the men reported more frequent attendance at gay bars and bathhouses many, approximately 75%, indicated that they did not feel attached or felt only somewhat attached to the gay community.

The unique characteristics of the recruited population must be noted. Clearly we recruited a population sometimes hidden in studies of gay and bisexual men. Throughout the report we use the term MSM, which reflects the diversity of men who participated in the study. The difference between the participants recruited for this study when compared to previous studies such as the *OMS* permits a snapshot of the “gay and bisexual community” that is seldom acquired. A sizeable proportion did not feel attached to the gay community and expressed this alienation. Whether this reflects unique characteristics associated with drug use is difficult to determine. Nevertheless, the lack of association with the community and the uniqueness of the sample suggest that the study population may be somewhat marginalized within the “gay and bisexual community.”

Despite the uniqueness of the study population there was still variation in the characteristics of the men. Income, for example, ranged from low to high, and the study included both unemployed and highly professionally trained men. To assume that poly-drug use within the gay communities lies within a small segment of low-income persons might well be erroneous.

Crystal Use

The use of crystal has received much attention in the press and from governing and drug-control authorities, but is not new. Various forms of methamphetamine have been used for a number of years. In fact this study verified that some of the respondents had used crystal for close to 50 years. However, we also found that men may be using the drug for the first time at a younger age. Further, these data suggest that the use of crystal within our study population was a more recent phenomenon with the average length of use being approximately seven years compared to use of marijuana, poppers, and psychedelics which had been used for between thirteen and twenty years of use (average mean number). What is important to note is that this substance may have been used by some for the first time at the age of 12 or 13.

The crystal phenomenon clearly seems to be related to the use of other drugs, such as those that might be associated with the party scene. However, this study, while not denying the use of crystal within the gay party scene, indicated that the drug, at least in the study population, is not solely a party drug but rather one that may be used in a variety of contexts. Although crystal users were more likely than other men in the study to use other party drugs, participants reported that they were almost three times more likely to use crystal at friend’s home and at bars and bathhouses than at a gay dance, a circuit party, or a rave. With regard to the context of use, the majority (greater than 60%) used with someone else such as a sex partner, a friend or friends.

The most common means of administration of the substance was snorting or inhaling, followed by smoking. Less than 10% consumed orally, injected, or used as a suppository. While a low percent injected crystal in the previous 90 days, among the crystal users slightly more than 20% injected other substances in the previous 90 days. Crystal users, while not injecting with crystal itself, were more likely to inject other substances than were non crystal users. Of those who had injected a substance, just under 8% reported

sharing a used needle. This may be an indication that they are more hard-core or experienced drug users in general.

Dependence

The study provides important information regarding dependence on crystal and other drugs. Utilizing criteria from DSM-IV, we determined that a lower proportion were dependent on crystal (22.4%) than were dependent on heroin (66.0%), crack (53.5%), alcohol (38.1%), and cocaine (35.2%). Within the total study population, dependence on crystal only ranked seventh among all substances.

The prevalence of crystal use varied with the demographic characteristics of men in this study; however, the extent of use did not necessarily reflect the same profile as dependence. For example, use varied little across age groups. However, the dependency on crystal was greater in younger age groups. This dependence may not be permanent, and may be related to transitional and maturational processes in men's lives. As happens with other substances such as alcohol, a portion of men who are dependent may spontaneously develop control over the use of the crystal. Further research of this aspect is required.

There was no clear association between dependence and educational level. With regard to work status, the highest level of use was among men on disability. This also would seem to relate to the fact that the highest use, in the past 90 days, was among those who receive employment insurance or social assistance. While men who reported that their main source of income was through sex work were not the highest users, this subgroup reported the highest percent of dependence. Again the need to distinguish between use and dependence was seen in the association with sexual orientation. Men who identified as gay or homosexual were the highest users but had the smallest proportion who were dependent.

It is apparent that dependence was greater among more marginalized men within the community. In general, while men attending gay bars, circuit parties, and bathhouses had the highest percent of users, the greatest percent who were dependent were among those who felt less attached to the gay community. It is not clear how the processes of marginalization operate: men may become marginalized through the drug use, or marginalization may lead to the greater dependence.

Crystal, Sex, and HIV Risk

Men's perception and expectation of crystal as an enhancer of the sexual experience was considerably lower than other drugs explored in this study, such as ecstasy, Viagra, poppers, and marijuana. Clearly men used crystal for a variety of reasons; the most predominant was for "fun or celebration." While "medicinal" or "escape" also were common reasons for use there was little difference in the percent of men who used crystal and those who used other drugs in this regard. Questions were asked in this study with regard to how drugs made men feel sexually. Men agreed that drug use could be

a means of “sexual facilitation.” Crystal users associated drugs with sexual facilitation and having intercourse more than non-crystal users. Despite this perception men scored crystal considerably lower than other drugs on increasing their likelihood of “crossing boundaries,” indicating they felt that crystal was less likely than many other drugs to entice them into having sex with someone they wouldn’t ordinarily have sex with, or to have sex without using a condom if they usually would use one. If crystal is initiating a wave of unsafe sex and a re-vitalized HIV epidemic, we would have expected more men to attribute unexpected and unsafe sex to the drug.

Sexual Health

A greater proportion of men recruited for this study self-reported that they had tested HIV positive (22.3%) than in other studies based on a larger or broader-based convenience sample of MSM in Toronto. Also, the men in this study reported higher rates of sexually transmitted infections and hepatitis. Among those who reported that they were HIV positive, a greater proportion, almost double, reported current use of crystal compared to those who were HIV negative. A very similar pattern was seen with regard to reported sexually transmitted infections in the past 12 months. Lower proportions of HIV positive men were dependent on crystal than those who were HIV negative.

One of the central beliefs is that crystal leads to unprotected anal intercourse and is fuelling a new epidemic among MSM. An initial examination of the data in this study appears to support this. Nevertheless, it is not evident from this study what the mechanisms are and what may occur first—the use of crystal or the infection. We undertook an analysis that examined the relationship between men testing HIV positive and first use of crystal. While slightly more than one-third (37.3%) of men reported crystal use prior to testing positive (seroconversion), approximately one-third (34.3%) first used crystal after seroconversion, and another 28.4% of HIV positive men did not report crystal use at all. Therefore, there was no clear indication of crystal use prior to seroconversion for the majority of HIV positive men in the study.

Sexual Risk

A greater proportion of men in this study reported participating in anal sex, and in unprotected anal sex, than in previous community-based samples within the Toronto gay community. This was true with both casual and regular male partners. The association of drug and reported unprotected anal sex was examined both independently for each of the drugs examined in this study and when controlling for all other drugs. Separate analyses were undertaken for regular and casual sex partners. When adjusting for all other drugs, with regular sex partners, crystal was the drug most strongly associated with unprotected anal sex, followed by crack and ecstasy. With casual partners crystal also was significantly associated, but to a lesser extent than poppers and to an only slightly greater extent than Viagra.

When interpreting the results of this analysis it is important to remember that crystal users also were more likely to use other party drugs such as ecstasy, GHB, Special K,

cocaine and other amphetamines—all of which showed a trend in an association with unprotected sex. Therefore, it is important to consider some of the common elements that might explain and be necessary or contribute to unprotected sex and drug use, such as attitudes, beliefs, values, and other lifestyle and contextual factors and social determinants. In addition, the nature of this investigation did not allow for a thorough analysis of these questions because the data were cross-sectional and the association between crystal and sexual behaviour was global, meaning that it was not measured within the sexual occasion. The *Desired Effects* study did include a diary component where participants recorded crystal (and other alcohol and drug) use within the sexual occasion; however, there were not enough diary days where crystal was taken to provide confidence in the results. Further quantitative and qualitative research with a primary focus on crystal use within the sexual event is required to begin to address any causal role crystal may or may not have in promoting unsafe sex.

Interestingly, dependence on crystal was not related to unprotected sex. Men who were not dependent were approximately four times more likely to report unprotected sex than those who reported dependence with either partner type.

The recruitment of men for this study presented many challenges. Largely, this is a study population that has not been recruited before. The time required to recruit was longer than the reduced funding allowed for. This fact in itself informs us of some of the challenges faced in undertaking research with this highly marginalized population, and in providing and ensuring appropriate interventions for prevention and care either for safer drug use, for safer sexual practices, or for HIV infection.

An awareness that the subgroup of men who participated (or did not participate) in this study were marginalized emphasizes the challenges of accessing the population. It is important to acknowledge the difficulties. This population of MSM is clearly at risk both for health issues related to drug use and for HIV infection related to drug use or related to risky sexual behaviour. Dealing with these issues may be exacerbated by the limited resources many of this population may face such as inadequate housing, low income and low education.

Further research is required not only to understand the dynamics of drug use and sexual risk behaviour but also to assess the effectiveness of interventions for this group. Further, as the sample size was small, it is not possible with this analysis to undertake research to examine the role and associations within different subgroups and subcultures of the community. Specific research of some of these subgroups would be helpful in developing prevention and care interventions. More research also is required to understand the stigma and processes of marginalization experienced by this population from within the gay community and the community at large, and to understand the support that is available to them and needed by them.

Part IV: References

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