

Crystal clear:

The social determinants of gay men's
use of crystal methamphetamine
in Victoria

William Leonard

Gary Dowsett

Sean Slavin

Anne Mitchell

Marian Pitts



Crystal Clear:

The social determinants of
gay men's use of crystal
methamphetamine in Victoria

William Leonard

Gary Dowsett

Sean Slavin

Anne Mitchell

Marian Pitts



Australian Research Centre
in Sex, Health and Society

Australian Research Centre in Sex, Health & Society

La Trobe University, Melbourne



© Australian Research Centre in Sex, Health & Society, La Trobe University February 2008

Australian Research Centre in Sex, Health & Society (ARCSHS)

La Trobe University

1st Floor 215 Franklin Street

Melbourne 3000

Australia

Tel (03) 9285 5382

Fax (03) 9285 5220

Email: arcs@latrobe.edu.au

Website: www.latrobe.edu.au/arcs

Monograph Series Number 67

ISBN 9781921377310

Suggested citation:

Leonard, W., Dowsett, G., Slavin S., Mitchell, A. and Pitts, M. (2008) *Crystal Clear: The social determinants of gay men's use of crystal methamphetamine in Victoria*. Monograph Series Number 67. Melbourne: La Trobe University, The Australian Research Centre in Sex, Health & Society.

CONTENTS

ACRONYMS	4
EXECUTIVE SUMMARY	5
1. Introduction	
1.1. Background	8
1.2. Structure of the paper	10
1.3. Methodology	10
2. Profiling crystal methamphetamine	
2.1. History	13
2.2. Pharmacology and physiological effects	15
2.3. Social and economic costs	18
2.4. Health costs	20
3. Illicit drug use in mainstream communities	
3.1. Rates and trends	24
3.2. Patterns	25
4. Crystal methamphetamine and gay men	
4.1. Epidemiological data	28
4.2. Behavioural data	34
4.3. Findings from the Delphi Scan	39
5. Treatment and prevention	
5.1. Treatment options	41
5.2. Treatment for gay men	42
5.3. Prevention and promotion	44
6. Framing policy	
6.1. Summarising the data	45
6.2. Current approaches	47
6.3. New policy frameworks	47
7. A coordinated response	
7.1. Policy and programs	50
7.2. Treatment and prevention	51
7.3. Research	52
Appendices	
A. Literature review and Factiva search	53
B. Literature review – Search terms	54
C. Melbourne-based data	55
D. Delphi Scan – Questionnaire	66
E. Delphi Scan – Expert reference group	70
F. Delphi Scan – Stage 2 results in full	71

ACRONYMS

ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
ANCD	Australian National Council on Drugs
ARC	Australian Research Council
ARCSHS	Australian Research Centre in Sex, Health and Society
BBV	Blood Borne Viruses
CBT	Cognitive Behavioural Therapy
DHS	Victorian Department of Human Services
ED	Emergency Department
ERDRS	Victorian Ecstasy and Related Drugs Reporting System
GHB	Gamma Hydroxy Butyrate
GLHV	Gay and Lesbian Health Victoria
GLMA	Gay and Lesbian Medical Association (US)
HCV	Hepatitis C
IDRS	Illicit Drug Reporting System
MACS	Multicenter AIDS Cohort Study
MSM	Men Who have Sex with Men
NDARC	National Drug and Alcohol Research Centre
NSDUH	National Survey on Drug Use and Health (US)
PDI	Victorian Party Drugs Initiative
SOPV	Sex On Premises Venue
STD	Sexually Transmissible Disease
STI	Sexually Transmissible Infection
UAI	Unprotected Anal Intercourse

EXECUTIVE SUMMARY

Background

Crystal Clear provides a comparative analysis of epidemiological, behavioural and social research on crystal methamphetamine use among gay men living in Melbourne and gay men living in other urban centres in Australia, the US, and the UK. The analysis focuses on the harms associated with gay men's use of the drug and in particular on research that indicates an association between crystal methamphetamine use and increased sexual risk-taking and rising rates of HIV and STIs. The paper reviews current crystal methamphetamine treatment and prevention options for gay men and provides a framework for the development of a coordinated research, policy and program response that will reduce the harms to gay men associated with the use of crystal methamphetamine and other illicit drugs.

The paper is based on a report on rates and patterns of crystal methamphetamine use among gay men living in Melbourne funded by Communicable Diseases Branch, Victorian Department of Human Services (DHS).

Key findings¹

Comparative data

Rates of illicit drug use, including crystal methamphetamine, among gay men in Australia, the UK and the US are higher than their respective national averages. Rates of crystal methamphetamine use among gay men living in Melbourne in 2006 have been estimated at between 8 and 15 per cent compared with 3.2 per cent for the population as a whole. Despite widespread media concerns of an impending "ice epidemic", national Australian data show that rates of crystal methamphetamine use have stabilised since 2000 and have fallen slightly over the last two years. This is the case for young people, in particular. However, the limited data available suggest that over this same period rates of crystal methamphetamine use among gay men living in Melbourne have increased, with one survey reporting that rates have more than doubled from 6.3 per cent in 2000 to 15.1 per cent in 2006.

According to national Australian data, rates of illicit drug use are highest among 18 to 29 year olds, with 10 per cent of this age group having used crystal methamphetamine in the last 12 months. In contrast, national data show that rates of crystal methamphetamine are highest among gay men aged 30 to 39 years.

This research also shows that polydrug use is the norm in both mainstream and gay communities, with crystal methamphetamine usually taken in combination with one or more other illicit substances, including prescription drugs. In Australia, over 90 per cent of gay men who reported taking crystal methamphetamine in a 2006 national survey reported doing so in combination with one or more other drugs.

Physiological effects

Short term use of crystal methamphetamine may result in fever, sweating, erectile dysfunction (in men), headache, blurred vision and dizziness, and at high doses may lead to convulsions. Medium to longer-term use may result in neuronal damage, permanent memory loss and impaired motor coordination. Use of crystal methamphetamine is associated positively with feelings of euphoria, confidence, invincibility and increased libido, and negatively with severe mood changes, depressive episodes, sleep disorders, physical exhaustion and violent behaviour. Injecting crystal methamphetamine carries the greatest risk of dependency and ill effects, followed by smoking, snorting and ingesting.

¹ Sources of data presented in the Executive Summary are referenced in full as a footnote when first used in the body of this report.

Social and health-related costs

Mainstream community

Mainstream studies and policies have focused on the personal, social and economic costs of crystal methamphetamine use, including its links to crime, violence and family breakdown. A national Australian survey of hospital emergency department admissions has shown an increase in the percentage of drug-induced psychosis separations due to amphetamine, from 41 per cent in 2000 to 55 per cent in 2004. However, it is not clear whether this signals an increase in the number of problematic users or more intense and frequent use among a relatively fixed population of users.

Gay men

In contrast, research and policy that address gay men's use of crystal methamphetamine have focused almost exclusively on the links between drug use, sexual risk-taking and rising rates of HIV and STIs. Apart from a few ethnographic studies, no Australian research has looked at the personal, social and economic costs to gay men and the wider community associated with gay men's use of crystal methamphetamine and other drugs. This narrow focus on infectious diseases may reflect an inability to consider gay men's health—and well-being—outside the confines of HIV and AIDS.

» Personal, social and financial costs

There is little research on the extent of dependent and problematic crystal methamphetamine use among gay men in Melbourne. However, international research suggests that problematic use is restricted to a small percentage of gay male users. A US study of gay men living in Miami found that long-term use of crystal methamphetamine was linked to loss of friends, employment and committed relationships. A small ethnographic study of gay men resident in Sydney found that chronic, long-term use was associated with loss of employment, financial hardship, depression, loss of friends and social isolation.

» HIV and STIs

There is considerable disagreement among researchers over the nature of the association between gay men's use of crystal methamphetamine and rising rates of HIV and STIs. A longitudinal US study demonstrates that methamphetamine use is associated with HIV seroconversion. Behavioural studies have documented increased sexual activity and sexual risk taking among gay men who use crystal methamphetamine, including increased rates of unprotected anal intercourse.

However, there is little evidence that gay men who use crystal methamphetamine change their sexual behaviours under the influence of the drug. US research shows that the association between methamphetamine and HIV infection is directly related to the frequency and intensity of the drug's use. Australian and international research suggests that frequent and intense use of crystal methamphetamine is most common among a very small cohort of gay men engaged in what has been termed "adventurous sex". Among this subpopulation of gay men, crystal methamphetamine is not the cause of risky sexual behaviours but rather its use is one of a number of ways of increasing the range and intensity of sexual experience (see below). The limited data available also suggest that injecting drug use, including crystal methamphetamine, is higher among this group, increasing the risk of hepatitis C transmission.

» HIV-positive gay men's health

Research on the effects of crystal methamphetamine use on the health of HIV-positive gay men suggests that the drug may impair the functioning of the immune system, interfere with antiretroviral medications, reduce adherence to antiretroviral medications and treatments, and lead to physiological changes to the mucosa that may increase the risk of HIV transmission.

Problematic use among gay men

National and international research shows that most gay men who use crystal methamphetamine use the drug recreationally and manage their recreational drug use with few, if any, problems. Epidemiological, behavioural and social studies suggest that problematic use is restricted to two discrete but overlapping populations of gay men: dependent users, and those who take crystal methamphetamine primarily to enhance their sexual capacity. There is a growing body of research demonstrating that homophobic abuse and discrimination are risk factors for dependent drug use. Behavioural studies identify three groups of gay men who are potentially exposed to greater levels of homophobia and stigma and hence are at increased risk of problematic drug use: young gay men in the process of coming out; MSM who are uncomfortable with their sexuality; and HIV-positive men.

Recent national and international research suggests that many of the gay men who take crystal methamphetamine to enhance their sexual capacity are part of an emerging gay subculture formed at the intersection of the gay commercial scene and private sex parties. The gay men who are part of this subculture tend to be older (30 to 39 years), are more likely to be HIV-positive, are more likely to inject crystal methamphetamine, and often use crystal methamphetamine in combination with other sexual performance enhancing drugs, in particular Viagra™.

However, the research suggests there is significant overlap and movement between these different ways of using crystal methamphetamine. This includes movement from and between recreational and dependent use of the drug and the blurring of the distinction between recreational/social and sexual use of the drug in the highly sexualised social spaces of contemporary gay commercial culture.

Limitations of current data

It is impossible to measure the total number of gay men in Australia (or Victoria), accurately, nor the total number of gay men who use crystal methamphetamine and the percentage of these who are problematic users. Furthermore, epidemiological, behavioural and social studies of gay men, nationally and internationally, rely on convenience sampling and are weighted in favour of community-attached gay men. The findings of this report also suggest that there is a lack of expertise among academics, policy makers and health care workers regarding gay men's use of crystal methamphetamine and the most appropriate and effective ways of minimising the harms associated with its use.

At the same time, there is little or no current Australian or Victorian research on the ways in which contemporary social and political processes are structuring gay identities, both collective and individual, and how new ways of being gay are affecting gay men's social and sexual practices. Such research is vital to understanding the changing relationships between gay men's drug use, including crystal methamphetamine, and sexual practices that carry an increased risk of HIV and STI transmission.

The notion that the world around us is continually evolving is a platitude; we rarely grasp its full implications. We do not ordinarily think, for example, of an epidemic disease changing its character as the epidemic spreads.²

1. Introduction

1.1. Background

Over the past two years in Australia, there has been an explosion of mainstream media interest in crystal methamphetamine, commonly known as "ice".³ According to more sensational reports, Australia is in the grip of an "ice epidemic", with increasing supply from markets in South East Asia matched by growing local demand.^{4,5} The drug's ready availability, and research suggesting it may be more addictive than other illicit substances, have fuelled media images of a drug with near universal appeal that poses a particular threat to the vulnerable and the young.⁶ Use of crystal methamphetamine has been linked to increases in drug-related crime and random acts of violence (including violence in hospital emergency departments), loss of income and employment, and the destruction of "ordinary Australians' lives".^{7,8,9}

Mainstream media hype over the social and economic costs of crystal methamphetamine use has been paralleled in the gay and lesbian press by concerns that crystal methamphetamine is feeding the collective libido of gay men, engendering a disregard for safe sex and with it a rise in HIV and sexually transmissible infections (STIs).¹⁰ "I think", declared respected author and gay activist Edmund White, "that the biggest single enemy of the gay community is crystal methamphetamine".¹¹ As early as 2000, researchers in the US suggested that increased use of club drugs, and in particular methamphetamine, may be one of the major factors driving increased rates of HIV infection among gay men on the West Coast.¹² Between 1999 and 2006, increasing rates of new HIV and STI diagnoses have been reported among urban gay men living in Western Europe, North America and other regions where the epidemic has a similar profile to that in Australia.¹³ Over this same period, Victoria has experienced a 99 per cent increase in newly diagnosed HIV infections, rising from 132 in 1999 to 263 in 2006, with the majority of new infections occurring among gay men living in Melbourne.¹⁴

² Crichton, M. (2002) *Prey*. Harper Collins: New York, USA, p. ix.

³ See, for example, the *Sunday Telegraph*, 11 September 2005, "the ice-cold killer"; *The Advertiser*, 28 September 2006, "Enter a new Ice Age"; *The Courier-Mail*, 30 September 2006, "facing up to the ice age"; and *The Age*, 14 October 2006, "Fear of the ice age".

⁴ According to King, reporting of crystal methamphetamine in the US has "followed a generally formulaic approach...based on instilling fear about a substance through dramatised descriptions and images of the consequences coupled with a notion of treating people with harsh punishments out-of-step with the harm caused by the drug". See King, R.S. (2006) "The Next Big Thing? Methamphetamine in the United States". Washington, Sentencing Project, p. 16.

⁵ *Sunday Mail*, 22 April 2007, "Squad fights spread of 'ice'", which reports that "The federal Government is to establish an international 'flying squad' of elite police to target production of the killer drug crystal methamphetamine".

⁶ See, for example, *The Australian*, 2 October 2006, "Police redesign drug tactics to break the rise of ice". The article reports that, "Police have recast their crime-fighting strategies to take on the proliferation of the illicit drug ice among the young"; *Canberra Times*, 26 September 2006, "Ice worse than heroin: Police", which quotes NSW Police Commissioner Ken Moroney "Australia was at risk of losing a generation of young people to the drug 'ice' [which] could be a worse problem than heroin".

⁷ *Canberra Times*, 10 May 2007, "Ice a huge challenge for society: Police", which opens: "Police have confiscated knives, slingshots, batons, syringes and tasers from aggressive ice users on Canberra streets...".

⁸ For the most recent examples, see *The Sydney Morning Herald*, 2 April 2007, "Hospitals bear brunt of raging ice addiction"; *The Age*, 2 April 2007, "Ice abuse leads to rise in psychotic episodes"; and *The Australian*, 1 February 2007, "Deadly ice scourge: Violence increases as 500,000 try drugs".

⁹ See *Herald-Sun*, 7 April 2007, "Ice breaker", which opens with "Brett Pascoe was spending up to \$2000 a week on his ice habit. He broke his wife's legs in a fit of rage... and that was before they lost the house and nearly each other"; *Sunday Age*, 18 March 2007, "Did ice turn this man into a sadistic rapist?"; and *Sunday Times* (Perth), 19 November 2006, "On the slippery slide to hell", which tells us that "Mark had a dream life before ice destroyed it".

¹⁰ What Shernoff has referred to in a review of current research on gay men's use of the drug as "crystal's sexual persuasion". Shernoff, M. (2005) "Crystal's sexual persuasion". *The Gay & Lesbian Review Worldwide*. XII:4, p. 24.

¹¹ White goes on to claim "In America the rising rates of HIV among young gays are almost all associated with crystal methamphetamine." "Life or Meth" at <http://www.lifeormeth.com/australasiapacific/4510297645>

¹² "The party drug is fueling a new epidemic of unsafe sex", reports Brown in 2002 in *NY Metro*, "and...some experts fear the party has just begun". Brown, E. (April 29 2002) "Crystal Ball". *NY Metro* at <http://www.newyorkmetro.com/news/articles/02/gay/crystalball>

¹³ Victorian Department of Human Services (2007) *Something borrowed, something new: Addressing rates of HIV and STI transmission among gay men in Victoria*. Prepared by William Leonard for the Public Health Branch, Victorian Department of Human Services Melbourne, p.6

¹⁴ Victorian Department of Human Services (2007) p.2 op cit.

Despite fevered media interest, a great deal of confusion and disagreement exists among researchers, policy makers and health care workers regarding the scale, scope and consequences of crystal methamphetamine use within both mainstream and gay communities. In a recent report by the National Drug and Alcohol Research Centre (NDARC), senior health officials from all jurisdictions in Australia ranked methamphetamine as the top priority area in drug and alcohol policy.¹⁵ However, their call for more research was not formed in response to compelling evidence of a looming "ice epidemic", but rather to counter what they perceived as media beat-ups and misrepresentations.¹⁶

Similar concerns were expressed by members of a reference group that provided expert comment, as part of this project, on the scale and scope of crystal methamphetamine use among gay men in Melbourne.¹⁷ All members noted the paucity of research and "hard data" on rates and patterns of crystal methamphetamine use in the gay male community.¹⁸ A number believed that media reports of increasing use among the general population were indicative of increasing use by gay men. However, a minority argued that talk of an ice epidemic is just "media hype" and that use in both mainstream and gay communities peaked in 2003 and was now declining.

There was also disagreement among members of the reference group regarding the types and levels of harm associated with gay men's use of crystal methamphetamine. This disagreement reflects divisions within the international research community and, in particular, diverging views regarding the nature of the association between crystal methamphetamine use among gay men and rising rates of HIV and STIs. While some researchers argue that rising rates of HIV and STIs are a direct result of increasing use of crystal methamphetamine, others suggest that increasing infection rates are the result of much broader and ongoing changes within the gay community over the last 10 to 15 years.¹⁹ These include changes to gay men's sexual practices, their use of drugs (including crystal methamphetamine) and the relationships between these two.

Clearly, there is a pressing need for more research on crystal methamphetamine use among mainstream and gay communities in Australia. In particular, there is a need to review and build on current research on gay men's use of crystal methamphetamine and on the relationship between drug use and changing sexual norms and practices within the gay male community. This will provide an evidence-based framework for developing effective, long-term policy, programs and services that reduce the harms to gay men associated with the use of crystal methamphetamine.²⁰

¹⁵ Ritter, A. (March 2007) Monograph No. 15: Priority areas in illicit drug policy: Perspectives of Policy Makers. *DPMP Monograph Series*. Sydney: National Drug and Alcohol Research Centre, p. 3.

¹⁶ As the authors of the report put it, "In light of the extensive media interest and debate, respondents felt that we need to get it [crystal methamphetamine] back into perspective". A number also argued that there was little hard data on crystal methamphetamine use in Australia and that what research had been done was limited in scope and contradictory in its findings.

¹⁷ The reference group was convened as part this project. See Section 1.4 "Methodology: Delphi Scan" for details.

¹⁸ See Appendix F for details.

¹⁹ Victorian Department of Human Services (2007) op cit.

²⁰ King argues that, "Misleading media reports of a methamphetamine 'epidemic' have hindered the development of a rational policy response". Topp echoes King's concerns, arguing that in Australia sensational media reporting of the harms associated with crystal methamphetamine may have fed a perception that effective treatment is impossible and that the only options for tackling the drug are supply reduction and increased law enforcement and criminal penalties. King, R.S. (2006) op cit. and Topp, L. (2006) "Focusing on Methamphetamines". *Of Substance: The national magazine on alcohol, tobacco and other drugs* 4:3, p. 10.

1.2. Structure of the paper

The paper is divided into 7 sections:

Section 1 – Outlines the aims of the project and structure of the paper

Section 2 – Profiles crystal methamphetamine including recent media appearances, a history of the drug and its uses, an overview of its pharmacology and physiological effects, and the harms and costs associated with its use

Sections 3 and 4 – Provide a comparative analysis of epidemiological data on illicit and recreational drug use in mainstream versus gay male communities using US, UK and Australian sources and an analysis of epidemiological and behavioural data on gay men's use of crystal methamphetamine internationally and in Australia

Section 5 – Looks at treatment and prevention options for dealing with crystal methamphetamine use, and the need for and effectiveness of interventions that target gay men

Section 6 – Outlines a policy framework aimed at addressing gay men's illicit drug use including crystal methamphetamine

Section 7 – Suggests the development of a coordinated research, policy and service system response to gay men's use of illicit drugs consistent with the framework outlined in Section 6.

1.3. Methodology

The report has drawn on three data sources:

- A literature review of national and international epidemiological, behavioural and social research on illicit drug use, including crystal methamphetamine, among mainstream and gay male communities;
- Current survey data on crystal methamphetamine use among gay men living in Victoria; and
- A survey of expert opinion regarding the extent of problematic crystal methamphetamine use among gay men living in Melbourne and the capacity of current health-related services to meet their specific needs.

1.3.1. Literature review

Review process

A search of Australian newspapers was conducted using the Factiva database for articles on "crystal methamphetamine" or "ice" published between January 2000 and May 2007.²¹ The search was also used to determine the number of articles published in Victoria during this same period and the number of articles published after 2005 both nationally and in Victoria. At the same time a review of national and international research on illicit and recreational drug use among gay men and drug prevention and treatment options was conducted using: CINAHL; Ovid Medline (R); Current Contents; APAFT; and CSA Sociological Abstracts.²² Searches were conducted for articles published in English between January 2000 and May 2007 and covered the fields of sociology, anthropology, social policy, clinical studies and the biomedical sciences. A more detailed account of the search process is included as Appendix A. The search terms used are listed in Appendix B. An EndNote file consisting of 97 articles has been generated from the research literature review (including full abstracts wherever possible). The articles were grouped according to the key search terms.

²¹ News and Business Information (Factiva).

²² Cumulative Index to Nursing and Allied Health Literature (CINAHL), Australian Public Affairs Information Service Full Text (APAFT), Cambridge Scientifics Abstracts (CSA).

1.3.2. Melbourne data

Table 1 lists in full the four surveys that were used to mine unpublished data on crystal methamphetamine use among gay men living in Melbourne. It includes the name of the organisation and individual responsible for providing the data.

Table 1 – Melbourne Data Sources

Name of survey	Responsible agency & individual
Grierson, J. et al. (2006) <i>HIV futures five: Life as we know it</i> . Monograph series number 60. The Australian Research Centre in Sex, Health and Society, La Trobe University: Melbourne HIV futures is run every two years and surveys the health and well-being of HIV-positive people living in Australia.	The Australian Research Centre in Sex, Health and Society, La Trobe University (Dr Jeffrey Grierson)
Pitts, M. et al. (2006) <i>Private Lives: A report on the health and well-being of GLBTI Australians</i> . Gay and Lesbian Health Victoria and The Australian Research Centre in Sex, Health and Society, La Trobe University: Melbourne <i>Private Lives</i> was a one-off national survey of the health and well-being of GLBTI Australians.	The Australian Research Centre in Sex, Health and Society, La Trobe University (Professor Marian Pitts)
Hull, P. et al. (2006) <i>Gay Community Periodic Survey: Melbourne 2006</i> (GCPS Report 4/2006). National Centre in HIV Social Research, The University of New South Wales: Sydney The <i>Melbourne Periodic Survey</i> is an annual survey of GLBTI health and well-being that uses convenience sampling of GLBT people attending the Mid-summer Carnival and a number of other GLBTI community events and venues.	National Centre in HIV Social Research, The University of New South Wales (Dr Garrett Prestage)
<i>Pivotal, peripheral or positional: Understanding SOPVs for intervention</i> (2007) final report pending. The SOPV Survey was a one-off Melbourne-based survey targeting MSM who attended saunas and other SOPVs.	The Australian Research Centre in Sex, Health and Society La Trobe University (Professor Anthony Smith)

Data

The four surveys all included questions related to illicit drug use, while the Sex on Premises Venues (SOPV) Survey included specific questions on crystal methamphetamine. Two are national surveys, one Victorian, and one is restricted to Melbourne. The Melbourne SOPV Survey results have yet to be published. The data provided for this project were restricted to males resident in Victoria who identified as men who have sex with men (MSM), gay, bisexual or queer.

The researchers listed in Table 1 were asked to analyse their respective databases for information and data relating to:

- Patterns of crystal methamphetamine use among gay men in Melbourne;
- Demographic variations in patterns of use among this population; and
- Health service usage for problematic gay male crystal methamphetamine users in Melbourne.

The data provided varied considerably in detail, depending on the respective survey's focus and range of questions. It was also presented in different formats. The results are presented in tabular form (with the exception of the Melbourne Periodic data) in Appendix C. The data provide a preliminary picture of crystal methamphetamine use among gay in Melbourne. They have been used throughout the report to compare rates and patterns of crystal methamphetamine use among gay men living in Melbourne with those of gay men living in other urban centres, both national and international.

1.3.3. Delphi Scan

What it is and what it is used for

The Delphi Scan is an iterative research tool aimed at clarifying areas of consensus and disagreement among expert informants regarding a critical issue or issues in their shared area of expertise in the absence of sufficient data from research and other published reports. It was developed by the RAND Corporation in the 1950s as a means to engage collective expert opinion in research and policy development.²³ The method has undergone continued development, but retains three key elements:

- Repeated individual questioning of experts;
- Maintaining the anonymity of the expert group to minimise conflict and undue influence; and
- Controlled feedback to enable participants to comment on and reconsider their own responses and those of the other members.

A number of recent reviews have highlighted the strengths and potential methodological weaknesses of the Delphi Scan and its increasing popularity in social research and policy development over the last ten years.²⁴

Generation of questionnaire and recruitment

The project management team assisted in the development of the Delphi Scan's questionnaire, which included both open-ended and forced-choice questions. The questions reflected the issues raised in the literature review and the Melbourne data. A copy of materials sent to participants, including the full questionnaire consisting of 14 questions, appears as Appendix D.

Following extensive consultations with key stakeholders and DHS officers, a comprehensive list of expert informants was generated. These were contacted by telephone. Of the 34 people approached, 32 agreed to participate in the Delphi Scan. These respondents were drawn from a wide range of occupations and organisations, from health care workers and academics to Victoria Police. Appendix E lists the organisations represented. Two interstate researchers were included to provide comparative data and comment.

Results

Stage 1 – All 32 respondents were emailed a Word copy of the questionnaire on 19 June 2007, followed by reminder emails and a final phone call to those who had not replied by the due date, 29 June 2007. The due date was extended and 23 completed questionnaires were returned by 17 July 2007.²⁵ The responses to each question were analysed in terms of key themes, areas of agreement and disagreement, and recommendations.

Stage 2 – All 23 respondents were sent a Word copy of the analysis of the collective responses to Stage 1 on 1 August 2007, followed by reminder emails and a final phone call to those who had not provided comments by the due date, 13 August 2007. The due date was extended but only 14 of the 23 respondents had provided comment by 17 August 2007. All agreed with the overall findings from Stage 1, with only minor changes.

A summary of the key findings from the Delphi Scan are presented in Section 4.3. The results of Stage 2 are presented in full in Appendix F. Findings from the Delphi Scan have been used throughout the paper to make comparisons between Melbourne and other jurisdictions, as appropriate.

²³ Landeta, J. (2006) "Current validity of the Delphi method in social sciences". *Technological Forecasting and Social Change* 73, pp. 467-468.

²⁴ For example, see De Meyrick, J. (2003) "The Delphi method and health research". *Health Education* 103:1, 7-16; and Mullen, R. (2003) "Delphi: Myth and reality". *Journal of Health Organization and Management* 17:1, 37-52.

²⁵ The response rate for each question varied significantly, with over 50 per cent of respondents ruling themselves "not qualified" to answer some (in the most extreme case 9) of the 14 questions.

2. Profiling crystal methamphetamine

2.1. History

2.1.1. International/US

The "amphetamines" are a class of closely related drugs.²⁶ They include amphetamine sulphate, dexamphetamine, and methamphetamine (also known as methylamphetamine).²⁷ Amphetamine and methamphetamine are synthetic substances similar in structure and effect to the naturally occurring stimulant ephedrine and the hormone adrenalin.²⁸ Crystal methamphetamine, also known as "ice" and "crystal meth", is a highly purified form of methamphetamine.²⁹ It is generally defined as having a minimum purity of 80 per cent, making it four to eight times higher in average purity than other forms of the drug.³⁰

Methamphetamine was first synthesised from ephedrine in Japan in 1893 and crystallized in 1919.³¹ Methamphetamine appeared as a legal drug in nasal decongestant preparations during the 1930s and was used in World War II by Japanese, German and US military personnel to combat fatigue.³² In the 1950s, there was a rise in the legal prescription of methamphetamine.³³ In the US, it was prescribed for, among other things, narcolepsy, certain depressive disorders, weight loss, and Parkinson's disease.³⁴

The 1960s witnessed a growth in the clandestine manufacture of crystal methamphetamine for personal and non-medical use. In the US, recreational use peaked in the late 1980s. In its 2 December 1989 edition, *The Economist* labelled San Diego the "methamphetamine capital of North America". In 1970, the US passed the Federal Controlled Substances Act in an effort to restrict the availability of methamphetamine. It has been argued, however, that this had the effect of driving methamphetamine production underground, increasing illegal production of crystal methamphetamine in basement laboratories and garages, and cementing the links between organised crime (including the Hells Angels) and the illicit drug market.³⁵ In 1983, laws were passed in the US prohibiting the possession of the precursors and equipment needed to produce methamphetamine. Later that year, Canada passed similar legislation. In 2005, the US passed the *Combat Methamphetamine Epidemic Act 2005*, which limited the amount of pseudoephedrine and ephedrine that a person may purchase in a specified time period.³⁶

²⁶ A number of policy documents cast a wider net, defining meth/amphetamines as part of a larger group of chemically similar drugs termed "amphetamine-type substances" (ATS). This group of drugs "comprises amphetamines and related substances, cocaine, and ecstasy and related substance". See Joint Committee on the Australian Crime Commission (28 February 2007) Inquiry into the manufacture, importation and use of amphetamines and other synthetic drugs (AOSD) in Australia. "Chapter 2 – Amphetamines and other synthetic drugs in Australia". Commonwealth of Australia. At http://www.aph.gov.au/Senate/Committee/acc_ctte/aosd/report/c02.htm [accessed 30/08/07]

²⁷ Illicit Drug Reporting System (June 2002) Drug Trends Bulletin: *Australia's Dynamic Methamphetamine Markets*. Prepared by Libby Topp. Commonwealth Department of Health and Ageing and the National Drug Law Enforcement Research Fund.

²⁸ Australian Crime Commission (2006) *Illicit Drug Data Report 2004–05*. Australian Crime Commission, Canberra, p.10. It is the addition of a methyl group to the amphetamine molecule that produces crystal methamphetamine. Drabsch, T. (2006) *Briefing Paper No 19/06: Crystal Methamphetamine Use in New South Wales*. NSW Parliamentary Library Research Services, p.3.

²⁹ Drabsch, T. (2006) op cit.

³⁰ McKetin, R., McLaren, J. and Kelly, E. (2005) *The Sydney methamphetamine market: Patterns of supply, use, personal harms and social consequences*. National Drug and Alcohol Research Centre, University of Sydney: NSW.

³¹ Lee, S. J. (2006) *Overcoming Crystal Meth Addiction: An Essential Guide to Getting Clean*. Marlowe and Company, New York, p.16 and Wikipedia at <http://en.wikipedia.org/wiki/Methamphetamine> [accessed 31/08/07]

³² Sheridan, J., Bennett, S. et al. (2006) Injury associated with methamphetamine use: A Review of the literature. *Harm reduction Journal* 3:14. Accessible at <http://www.harmreductionjournal.com/contents/3/1/14>. Methamphetamine was first marketed in the US under the brand name Methedrine.

³³ In 1967, there were 31 million prescriptions for methamphetamine written in the US. Vincent, K. B. (2005) *The Ecstasy and Methamphetamine Drug Epidemics: Implications for Prevention and Control*. Master of Arts, Faculty of the Graduate School of the University of Maryland, College Park, p.36.

³⁴ Hunt, D., Kuck, S. and Truitt, L. (2006) *Methamphetamine Use: Lessons Learned*. Prepared for the National Institute of Justice, Office of Justice Programs, Washington, pp. 51–52.

³⁵ Lee, S. J. (2006), pp. 16–17 op cit.

³⁶ Cunningham, J. K. and Liu, L. M. (2003) "Impacts of Federal ephedrine and pseudoephedrine regulations on methamphetamine-related hospital admissions". *Addiction* 98, 1229–37.

2.1.2. Australia

*Compared to the US there has been little methamphetamine use in Australia.*³⁷

In Australia, as in the US, amphetamine and methamphetamine have been used by certain occupational groups to provide extra stamina and alertness. For example, there are reports of 30 to 45 per cent lifetime use of amphetamines among long-distance truck drivers.³⁸ However, the emergence of an illicit, recreational methamphetamine market in Australia has lagged behind the US.

McKetin provides a brief history of meth/amphetamine use in Australia.³⁹ She argues that methamphetamine was first signalled as an emerging problem among young people in the late 1980s. An article in *The Australian Magazine* in May 1990 warned readers of the potential effects of crystal methamphetamine based on reports from the US, including Hawaii.⁴⁰ In 1991, Customs and the Australian Federal Police warned of the dangers posed by "ice" following the seizure of 80 kilograms of the drug in Hong Kong and Japan, believed to have been manufactured in China.⁴¹

According to McKetin, the majority of methamphetamine available in Australia is produced locally.⁴² However, production and use vary significantly between States, with higher rates of use reported in Queensland (especially the Gold Coast region), South Australia and Western Australia.⁴³ McKetin argues that, in the mid 1990s, there was a shift from the manufacture and supply of amphetamine to its more potent analogue methamphetamine, with the latter now accounting for over 90 percent of the amphetamines seized in Australia.⁴⁴ This was followed in the late 1990s by the introduction of imported high-purity crystal methamphetamine.⁴⁵

A recent Senate inquiry found that use of crystal methamphetamine is increasing in social groups that traditionally have not been associated with hard drug or amphetamine use because it can be ingested in a number of ways.⁴⁶ Unlike heroin, crystal methamphetamine use is not limited to the small proportion of the population who are willing to inject themselves (estimated at 0.5 per cent).⁴⁷ The late 1990s also saw a shift in local production of methamphetamine to a high purity damp or oily powder form called "base".⁴⁸ McKetin also notes that many of the ecstasy pills on the Australian market contain methamphetamine, while injection of methamphetamine has been taken up amongst a proportion of heroin injectors following the 2001 heroin shortage.

³⁷ Maxwell, J.C. and Davey, J. (1997) *Comparison of Patterns of Illicit Drug Abuse in Australia and the United States*. Texas Commission on Alcohol and Drug Abuse, Austin, Texas, p.10.

³⁸ Maxwell, J.C. and Davey, J. (1997) p. 9 op cit.

³⁹ McKetin, R. (2007) "Chapter 5: Meth/amphetamine" in Ross, J. (Ed.) *Illicit drug use in Australia: Epidemiology, use patterns and associated harm* (2nd Ed.). National Drug and Alcohol Research Centre, Commonwealth of Australia, Canberra, p.24.

⁴⁰ "Ice: The New Vice" (1990) *The Australian Magazine*, 26-27 May, pp. 8-14. Referenced from Drabsch, T. (2006) op cit, p.6.

⁴¹ Australian Broadcasting Corporation (2006) *Chronology: the emergence of methamphetamine in Australia*. Four Corners 20 March. At http://abc.net.au/4corners/content/2006/20060320_ice/chronology.htm [accessed 3/09/07].

⁴² McKetin, R., McLaren, J., et al. (2005) *Estimating the number of regular and dependent methamphetamine users in Australia*. NDARC Technical Report no. 230. National Drug and Alcohol Research Centre, Sydney.

⁴³ Iverson, J., Topp, L. et al. (October 2006) "Drug use trends among injecting drug users: Findings from the Australian Needle and Syringe Program Survey, 2001-2005. IDRS Drug Trends Bulletin. At [http://www.med.unsw.edu.au/NDARCWeb.nsf/resources/Bulletins_2006/\\$file/IDRS+BULLETIN+OCT+2006.pdf](http://www.med.unsw.edu.au/NDARCWeb.nsf/resources/Bulletins_2006/$file/IDRS+BULLETIN+OCT+2006.pdf) [accessed 26/09/07]. See also Caulkins, J. (2003) "Methamphetamine epidemics: An empirical overview". *Law Enforcement Executive Forum* 3, 17-42. Caulkins argues that, unlike other illicit drugs such as ecstasy, there is dramatic spatial or geographic variation in patterns of crystal methamphetamine use. In the US, Caulkins shows that by 2002 use of crystal methamphetamine had stabilised at endemic levels in the West, was an emerging epidemic in the Midwest, but was only just beginning in the East.

⁴⁴ In the year 2000-2001, 91 per cent of all seizures of amphetamines were methamphetamine. Australian Bureau of Criminal Intelligence (2002) *Australia Illicit Drug Report 2000/01*. Canberra: Commonwealth of Australia.

⁴⁵ Most shipments originate from China and to a lesser extent from other countries in the Asia Pacific region. See National Leadership Forum on Ice (December 2006) *ICE (Crystal Methamphetamine)*. Radisson Hotel, Sydney p.9. However, Drabsch, reporting on the findings of the Australian Crime Commission argues that "growing demand for crystal methamphetamine will lead to more attempts to import it as well as produce it locally". The first crystal methamphetamine laboratory in Australia was detected in Queensland in February 2002. Drabsch, T. (2006) p.7 op cit.

⁴⁶ Joint Committee on the Australian Crime Commission (2007), op cit.

⁴⁷ The Australia Institute *Submission to the Parliamentary Joint Committee on the Australian Crime Commission Inquiry into Amphetamines and Other Synthetic Drugs (AOSD)*, quoted in Joint Committee on the Australian Crime Commission (28 February 2007) op cit.

⁴⁸ McKetin, R. (2007) op cit p.24.

It is clear from this brief history that the market for methamphetamines in Australia is well established and diverse—diverse not only in terms of the different forms (and purity) of methamphetamine available, but also in terms of local (and subcultural) patterns of production and consumption (see below).⁴⁹

The commercial gay scene

Little research has been done on how crystal methamphetamine entered gay communities in Melbourne and other Australian capital cities. This is indicative of the paucity of research on the history and changing patterns of drug use among gay men in Australia. Anecdotal reports suggest that crystal methamphetamine may have entered the Sydney gay scene in the late 1990s through gay male tourists from the US and, in particular, from its West Coast. As numerous researchers have noted, illicit drug use is a key—if not defining—feature of the gay commercial and sex scenes.⁵⁰ To a degree, these are experimental scenes marking out in advance a space for new drugs. As gay men in major Australian cities became aware of and began to use crystal methamphetamine, gay commercial culture was linked into existing domestic networks of the drug's supply. Insofar as these drug networks vary geographically, this history may explain differences in patterns of crystal methamphetamine use among gay men between cities and States.⁵¹ This history also highlights the importance of considering local conditions in the design and implementation of policy and programs targeting problematic crystal methamphetamine use among particular segments of the population, including gay communities.

2.2. Pharmacology and physiological effects

2.2.1. Pharmacology

Amphetamine and methamphetamine stimulate the release of various neurotransmitters including dopamine, noradrenalin, adrenaline and serotonin. Both boost central nervous system activity, leading to increases in physical activity, heart rate, blood pressure and body temperature, and decreased appetite and need for sleep. They also cause feelings of euphoria, well-being and confidence.⁵² Although amphetamine and methamphetamine have a similar chemical structure, at comparable doses much higher levels of methamphetamine enter the brain, making it a more potent stimulant.⁵³ It also has longer lasting and more harmful effects on the central nervous system.⁵⁴

2.2.2. Mode of administration

Methamphetamine is available in three main forms:

- Powder – Also known as "speed", which is around 10 per cent pure. Most people who use speed either snort (inhale through the nose) or inject it.

⁴⁹ "The current market for methamphetamine", writes McKetin, "is entrenched, broad and dynamic, encompassing patterns of drug use that range from infrequent recreational use through to heavy dependent injecting use of the drug." McKetin, R. (2007) op cit p.24.

⁵⁰ Colfax, G. and Guzman, R. (2006) "Club Drugs and HIV Infection: A Review". *Clinical Infectious Diseases* 42, 1463-69; Romanelli, F., Smith, K.M. and Pomeroy, C. (2003) "Use of Club Drugs by HIV-Seropositive and HIV-Seronegative Gay and Bisexual Men". *International AIDS Society – USA: Topics in HIV Medicine* 11:1, 25-32; Lee, S. J., Galanter, M. et al. (2003) "Circuit Parties and Patterns of Drug Use in a Subset of Gay Men". *Journal of Addictive Diseases* 22:4, 47-60; and Southgate, E., Hopwood, M. (1999) *The drug use and gay men project*. National Centre in HIV Social Research, University of New South Wales: Sydney.

⁵¹ A report by British Columbia Ministry of Health Services suggests that in Canada crystal methamphetamine moved from the gay into the mainstream community. However, the history of the drug's use in the US and the existence of local Australian supply networks in the 1990s suggest a more complex interaction between mainstream and gay communities in the gradual popularisation of crystal methamphetamine. British Columbia Ministry of Health Services (2004) *Crystal Meth and Other Amphetamines: An Integrated BC Strategy*. British Columbia Ministry of Health Services, British Columbia.

⁵² Illicit Drug Reporting System (June 2002) op cit.

⁵³ The methyl group in crystal methamphetamine is responsible for its increased potency relative to amphetamine. It renders crystal methamphetamine more lipid soluble, easing transport across the blood-brain barrier (BBB), while also making it more resistant to enzymatic degradation. Rothman, R.B. et al. (2001) "Amphetamine-type central nervous system stimulants release norepinephrine more potently than they release dopamine and serotonin". *Synapse* 39, 32-41.

⁵⁴ National Institute of Drug Abuse (2006) *Research Report Series - Methamphetamine Abuse and Addiction* at <http://www.nida.nih.gov/ResearchReports/Methamph/methamph2.html#what> [accessed 06/09/07] and Degenhardt, L. and Topp, L. (2003) "Crystal Methamphetamine use among polydrug users in Sydney's dance party subculture: characteristics, use patterns and associated harms". *International Journal of Drug Policy* 14:1, p.17.

- Base – Also known as “paste”, “wax”, “point” or “pure”, which is a sticky, gluggy, waxy or oily damp powder, paste or crystal. It has a purity of about 20 per cent. Base is administered through a number of routes including swallowing, snorting, smoking and injecting.
- Ice – Also known as “shabu”, “crystal”, “Tina” or “crystal meth”, which is a crystalline form of high purity (80 per cent). Like base, crystal methamphetamine can be swallowed, snorted, smoked or injected.⁵⁵

The risk of methamphetamine addiction is linked to the mode of the drug's administration and the form of the drug used. Clearly, the risk of addiction or problematic use is greater with the crystallised form of the drug. The quicker the drug is absorbed into the blood stream, the quicker and more intense the effects and the greater the potential for addiction.⁵⁶ The slowest rate of absorption occurs when crystal methamphetamine is taken orally, producing effects within 15 to 30 minutes. Snorting crystal provides a faster high, within three to five minutes, as the drug is absorbed through the blood vessels in the nose. The two most rapid absorption routes are smoking and injection, where effects are felt within seven to 15 seconds. Intravenous injection releases crystal methamphetamine directly into the blood stream, while smoking involves rapid absorption of vapours through the blood vessels lining the lungs; the vapours are then pumped throughout the body.⁵⁷

Studies show that people who inject crystal methamphetamine are five times more likely to become dependent users than people who ingest or snort the drug.⁵⁸ Higher rates of dependent use have also been noted for people who smoke the drug. McKetin and others have argued that this is of particular concern given Australian data showing a rapid increase in the popularity of smoking crystal methamphetamine among non-injecting drug users and young people aged 16 to 25 years and elevated levels of drug dependence among these groups.⁵⁹

2.2.3. Physiological effects

Colfax and Guzman, and Maxwell provide current reviews of research on the physiological effects of crystal methamphetamine.⁶⁰ The *Journal Addiction* has recently published a supplement focused on methamphetamine, which includes articles on the drug's neurological, biochemical and physiological effects.⁶¹

⁵⁵ Illicit Drug Reporting System (June 2002) op cit; McKetin, R., McLaren, J. and Kelly, E. (2005) p. 22 op cit.; and Topp, L., Degenhardt, L. et al (2002) "The emergence of a potent form of methamphetamine in Sydney, Australia: A case study of the IDRS as a strategic early warning system". *Drug and Alcohol Review* 21. 341-348.

⁵⁶ The National Institute on Drug Abuse and Goode (1999) referenced in Hunt, D., Kuck, S. and Truitt, L. (2006) p. 44 op cit.

⁵⁷ National Leadership Forum on Ice (December 2006) *ICE (Crystal Methamphetamine)* pp. 15-16 op cit, Hunt, D., Kuck, S. and Truitt, L. (2006) p. 44 op cit, and Cook, C.E., Jeffcoat, A.R. et al. (1993) "Pharmacokinetics of methamphetamine self-administered to human subjects by smoking s-(+)-methamphetamine hydrochloride. *Drug Metabolism and Disposition* 21, pp. 717 -723.

⁵⁸ Australian National Drug and Alcohol Research Centre (no date given). *On thin ice: A user's guide*, p.5. At <http://ndarc.med.unsw.edu.au/> [accessed 06/09/07]

⁵⁹ McKetin, R., McLaren, J. and Kelly, E. (2006) The relationship between crystalline methamphetamine use and methamphetamine dependence. *Drug and Alcohol Dependence* 58, 198-204.

⁶⁰ Colfax, G., Guzman, R. (2006) "Club Drugs and HIV Infection: A review" *Clinical Infectious Diseases* 42, p.1464 and Maxwell, J.C. (2005) "Emerging research on methamphetamine". *Current Opinion in Psychiatry* 18, pp. 235-242.

⁶¹ *Addiction* (2007) 102, Supplement 1 pp. 1-135 with an introductory article by Rawson, R.A. and Condon, T.P. (2007) "Why do we need an Addiction supplement focused on methamphetamine?", pp. 1-4.

Short and medium term

Studies show that a large percentage of recreational users manage their crystal methamphetamine use with few or no problems.⁶² However, the severity of any episode of use is related to the amount and purity of the drug taken and the mode of administration. The high experienced with a single dose of crystal methamphetamine may last anywhere from two to 48 hours and its physiological effects may include erectile dysfunction (among men), fever, severe sweating, headache, blurred vision and dizziness. At very high doses, it can lead to elevated body temperature and convulsions. The psychological effects include greater confidence and energy, an increased libido, and feelings of strength and invincibility.⁶³ Users are also likely to be talkative and restless.⁶⁴ Throughout the "comedown" or "crash", a person may become depressed, irritable, lethargic, anxious and paranoid, or find it difficult to sleep.⁶⁵

Occasional use increases the risk of drug overdose, psychosis, violent behaviour and dependency. People who have or are predisposed to particular mental health problems such as anxiety disorders are at increased risk from regular, even if occasional, use of the drug. McKetin estimates that the prevalence of psychosis is 11 times higher among regular methamphetamine users than among the general population, and that 23 per cent of regular users will experience symptoms of psychosis in a given year.⁶⁶

Occasional use is also associated with increased risk of sleep disorders, physical exhaustion and depressive episodes. Although there are few data on the number of occasional users who become dependent, the percentage appears to be small. The trajectory from occasional use to dependency maps onto changing modes of administration from snorting or swallowing, to smoking and injecting.⁶⁷

Long-term

Evidence suggests that prolonged methamphetamine use is associated with neuronal damage resulting in potentially permanent memory loss, attention deficits and mood changes, and impaired motor coordination.^{68, 69} A US study of over 1,000 methamphetamine users in treatment found high levels of psychiatric problems such as depression, anxiety, suicide and attempted suicide, and violent behaviour. Residual symptoms include prolonged inability to experience pleasure, anxiety and psychotic episodes.⁷⁰ Studies also suggest that long-term use may lead to severe and ongoing cardiac problems.⁷¹

⁶² Australian National Council on Drugs (2007) *Methamphetamine: Position paper*. Australian National Council on Drugs; Canberra, p. 3.

⁶³ Taken from ACT Council of Social Services Inc (April 2007) *Submission to the ACT Legislative Assembly Standing Committee on Health and Disability Inquiry into the Use of Crystalline Methamphetamine in the ACT*. ACT Council of Social Services Inc: Reid, ACT, p.11.

⁶⁴ ACT Council of Social Services Inc (April 2007) p.11 op cit.

⁶⁵ Drabsch, T. (2006) p.4; McKetin, R., McLaren, J. and Kelly, E. (2005) op cit, n5 p.70

⁶⁶ McKetin, R., McLaren, J. et al. (2006) The prevalence of psychotic symptoms among methamphetamine users. *Addiction* 101, pp. 1473-1478.

⁶⁷ "[A] proportion of people who try the drug move on to take methamphetamine regularly, often making the transition to the more efficient routes of smoking or injecting the drug". Australian National Council on Drugs (2007) p. 3 op cit.

⁶⁸ See Drabsch, T. (2006) pp. 4-5 for a comprehensive list of the long term effects of crystal use.

⁶⁹ Hunt, D., Kuck, S. and Truitt, L. (2006) p. 46 op cit. Nordahl, T.E., Salo, R. and Leamon, M. (2003) "Neurophysiological effects of chronic methamphetamine use on neurotransmitters and cognition: A review". *J Neuropsychiatry Clin Neurosci*. 15:3, pp. 317-325,

⁷⁰ Zweben, J., Cohen, J. et al. (2004) "Psychiatric symptoms in methamphetamine users". *American Journal of Addictions* 13:2, pp. 181-190 and Cohen, J., Dickow, A. et al. (2003) "Abuse and violence history of men and women in treatment for methamphetamine dependence". *American Journal of Addictions* 12:5, pp. 377-385

⁷¹ Wijetunga, S. et al. (2003), referenced in Hunt, D., Kuck, S. and Truitt, L. (2006) p. 46 op cit.

2.3. Social and economic costs

The Australian National Council on Drugs (ANCD) reports that, “the major public health consequences related to methamphetamine use occur disproportionately among people who are dependent on the drug”.⁷² The ANCD identifies a number of negative social and economic consequences related to the heavy use of crystal methamphetamine.

These include:

- Crystal methamphetamine-related violent behaviour and crime and their effect on emergency services, the police, and the courts; and
- Relationship breakdown, unemployment and financial debt.⁷³

Maxwell offers a similar list in a recent US review of the social costs associated with methamphetamine.⁷⁴

2.3.1. Violence and crime

Shoptaw and Reback argue that, among US men, methamphetamine use compromises income earnings and is associated with psychological problems, both of which can lead to increased violence, criminality and incarceration.⁷⁵ The ANCD notes that violent behaviour, and in particular violent crime, is most likely to occur among chronic methamphetamine users when they experience drug-induced paranoia.⁷⁶ The ANCD makes a distinction between two types of crystal methamphetamine-related violent crime: economically motivated violent crime; and violent behaviour associated with chronic use and intoxication, which may lead to assault or homicide.

In New South Wales, crystal methamphetamine-related arrests rose from 18 per 100,000 population in 1995 to 46 per 100,000 population in 2005, an increase of 253 per cent.⁷⁷ A review of the methamphetamine market in Sydney by McKetin et al. found that 45 per cent of the methamphetamine users surveyed had committed an offence in the past month, one quarter had been arrested in the past year, and one third had served a prison sentence during their lifetime.⁷⁸ However, as McKetin notes, these statistics are similar to those for other illicit drug-using populations.

According to McKetin, methamphetamine users most likely to commit crime are younger, have a history of antisocial behaviour, and use purer forms of base or ice in combination with other drugs.⁷⁹ This profile does not match that of dependent gay male users (see Section 4.1). Currently, there are few or no data on the percentage of gay male crystal methamphetamine users who have committed violent and/or criminal offences, or on the relationship between such offences and different rates and patterns of crystal methamphetamine use within the gay male community.

⁷² Australian National Council on Drugs (January 2007) *Methamphetamines: Position Paper*. ANCD: Canberra, ACT p. 1 op cit. This position is reiterated by McKetin, who states, “Harms associated with meth/amphetamine use are seen disproportionately among people who take the drug weekly or more often”. McKetin, R. (2007) p. 25 op cit.

⁷³ “Over time”, writes King, “methamphetamine abuse can result in the deterioration of physical and mental capacities, the dissolving of family ties, diminished employment prospects, and a lifetime spent cycling through the criminal justice system”. King, R.S. (2006) p. 1 op cit.

⁷⁴ Maxwell, J.C. (2005) “Emerging research on methamphetamine”. *Curr Opin Psychiatry* 18, pp. 235-242.

⁷⁵ Shoptaw, S. and Reback, C. (2006) p. 1152 op cit.

⁷⁶ The Australian National Council on Drugs (2007) p. 6 op cit.

⁷⁷ McKetin, R., McLaren, J. et al. (2006) “The relationship between methamphetamine use and violent behaviour”. New South Wales Bureau of Crime Statistics and Research. *Crime and Justice Bulletin* 97.

⁷⁸ McKetin, R., McLaren, J. and Kelly, E. (2005) p. xvii op cit.

⁷⁹ McKetin, R., McLaren, J. and Kelly, E. (2005) p. xvii op cit.

2.3.2. Emergency department admissions

Degenhardt, Roxburgh and McKetin report that, from 1999-2000 to 2003-2004, amphetamines accounted for the largest proportion of all drug-induced psychosis separations in Australia, increasing from 41 per cent in 1999-2000 to 55 per cent in 2003-2004.⁸⁰ Fulde and Wodak note that very few Australian studies have looked at the profiles of people accessing hospital emergency departments (ED) for methamphetamine-related problems or the effect these presentations have on limited hospital resources.⁸¹

Gray et al. conducted a three-month study in 2005 of presentations at the Royal Perth Hospital ED.⁸² They found that, over that period, 1.2 per cent (156) of presentations was judged to be causally related to amphetamine use. Repeat attendance was common, with 45.5 per cent (58) of patients having previous amphetamine-related presentations to the Royal Perth Hospital ED. Over 50 per cent of patients were aged 20-29 and 38.5 per cent aged 30 years or more. The majority of patients reported taking the drug at home (48.3 per cent) followed by "at a friend's place" or "at a public venue" (both 16.7 per cent). Over 70 per cent of patients reported injecting the drug, followed by ingesting (19.2 per cent) and smoking (10.3 per cent).

ED admissions do not routinely screen for drugs, so studies such as Gray's have relied on clinical assessment and case note review. Furthermore, ED admissions for methamphetamine and other drugs are likely to vary significantly between inner-city and outer-metropolitan hospitals and between different cities. A study of methamphetamine-related ED admissions in an inner-city Sydney hospital reported rates of admission and patterns of use significantly different from those in Gray's study and may reflect very different demographics and user groups.⁸³

Again, sexuality is not routinely screened for in the collection of hospital emergency data. This lack of data is reflected in the responses from two hospital workers in the Delphi Scan. One respondent put the percentage of problematic gay male crystal methamphetamine users presenting at EDs at 30 per cent, while the other believed that few if any gay men were presenting at EDs with crystal methamphetamine related problems, including psychosis (Appendix F). Data from *Private Lives* show that gay male crystal methamphetamine users in Melbourne were "no more likely" than gay men who had never used the drug to report accessing hospital emergency rooms in 12 months prior to the survey, even when controlling for age (Appendix C). However, a review of case notes may provide some information on clients whose sexuality was a factor in the methamphetamine-related incident that led to their ED admission.

2.3.3. Personal and financial costs

Kurtz, in a study of gay men living in Miami, found that long-term use of crystal methamphetamine was linked to the loss of friendships, employment and committed relationships.⁸⁴ An in-depth ethnographic study of four gay male, recreational, crystal methamphetamine users in Sydney found that two of the respondents experienced severe emotional and financial problems as their use became more entrenched and problematic. By the conclusion of the two-year study early in 2002, one of the respondents was depressed and isolated, having lost both his job and friendship networks.⁸⁵ It is significant that the majority of respondents to the Delphi Scan described problematic crystal methamphetamine use not only in health-related terms but also in terms of the level of disruption "to someone's everyday life". As one respondent put it, "I would define crystal use as problematic when it impacts on the user's ability to maintain their employment, their primary relationship, their friendship networks and their usual social activities..." (Appendix F).

⁸⁰ Degenhardt, L., Roxburgh, A. and McKetin, R. (2007) "Hospital separations for cannabis and methamphetamine-related psychotic episodes in Australia". *Medical Journal of Australia* 186:7, p. 343.

⁸¹ Fulde, G.W.O., Wodak, A. (2007) p. 334 op cit.

⁸² Gray, S.D., Fatovich, D.M. et al. (2007) "Amphetamine-related presentations to an inner-city tertiary emergency department: A prospective evaluation". *Medical Journal of Australia* 186:7, pp. 336-339.

⁸³ Bunting, P.J., Fulde, G.W.O. and Forster, S.L. (2007) "Comparison of crystalline methamphetamine ("ice") users and other patients with toxicology-related problems presenting to a hospital emergency department". *MJA* 187:10, 564-566.

⁸⁴ Kurtz, S.P. (2005) "Post-circuit blues: Motivations and consequences of crystal meth use among gay men in Miami". *AIDS and Behavior* 9:1, pp. 63-72.

⁸⁵ Slavin (2004) p. 455 op cit.

2.4. Health costs

2.4.1. Public health costs

A report from the Australian Capital Territory (ACT) Council of Social Services lists the impact of crystal methamphetamine dependency on community sector organisations.⁸⁶ The report notes that a number of service providers, from crisis accommodation to mental health and drug and alcohol services, said they needed to "significantly alter their method of service delivery because they did not have the capacity to deal with a person [affected] by crystal methamphetamine".⁸⁷ Similar concerns have been expressed by GPs, hospital emergency personnel and many of the experts in the Delphi Scan.

The US Gay and Lesbian Medical Association (GLMA) has argued that methamphetamine use is associated with increased use of already-strained health care resources.⁸⁸ US studies show that methamphetamine use often results in unnecessary or avoidable admissions to trauma centres and emergency services.⁸⁹ Sheridan et al. also offer a review of the research on the public health costs associated with crystal methamphetamine-related injury in the US.⁹⁰

2.4.2. Gay men's health and well-being

Increased rates of HIV and STIs

HIV: It is now widely accepted among researchers that there is "a significant association between increased sexual risk behavior and methamphetamine... use".⁹¹ Shoptaw and colleagues conclude that the US data "indicate the role of methamphetamine use in concomitant behaviors that increase risk of HIV transmission".⁹² The most recently published data from the Multicenter AIDS Cohort Study (MACS), a longitudinal US study that has recruited thousands of gay men since it began in the mid-1980s, demonstrate that methamphetamine use is associated with HIV seroconversion.⁹³ After adjusting for potential confounding factors, the investigators found that men who reported crystal methamphetamine use had a relative risk of HIV seroconversion of 1.46 compared with men who did not use the drug. Unsurprisingly, the relative risk of HIV seroconversion also increased with the number of male partners with whom a man had had unprotected receptive anal sex. Shoptaw, in a review of epidemiological data on methamphetamine use and HIV infection among US gay men, suggests that this association is directly related to the length and severity of methamphetamine use: "[T]he longer or more heavily individuals are involved in using methamphetamine, the more likely they are to be HIV infected".⁹⁴

⁸⁶ ACT Council of Social Services Inc (April 2007) op cit, pp. 25-26.

⁸⁷ ACT Council of Social Services Inc (April 2007) op cit, p. 25.

⁸⁸ GLMA (2006) p. 10 op cit.

⁸⁹ Tominaga, G.T, Garcia, G. et al. (2004) "Toll of methamphetamine on the trauma system". *Arch Surg* 139:8, pp. 844-47 and Szuster, R.R. (1990) "Methamphetamine in psychiatric emergencies". *Hawaii Med J* 49:10, pp. 389-91.

⁹⁰ Sheridan, J., Bennett, S. et al. (2006) "Injury associated with methamphetamine use: A review of the literature". *Harm Reduction Journal* 3:14 at <http://www.harmreductionjournal.com/content/3/1/14>

⁹¹ Colfax, G., Guzman, R. (2006) p. 1465 op cit.

⁹² Shoptaw, S., Reback, C.J. (2006) p. 1153 op cit.

⁹³ The study is based in Baltimore, Chicago, Pittsburgh and Los Angeles. Plankey, M.W., Ostrow, D. et al. (2007) "The relationship between methamphetamine and popper use and risk of HIV seroconversion in the Multicenter AIDS Cohort Study". *J Acquir Immune Defic Syndr* 45:1, pp. 85-92.

⁹⁴ Shoptaw, S. (2006) "Perspective: Methamphetamine Use in Urban Gay and Bisexual Populations". *Top HIV Med* 14:2, p. 85. See also Buchacz, K., McFarland, W. et al. (2005) op cit.

Other STIs: Recent studies have linked use of crystal methamphetamine with increased risk of contracting an STI.⁹⁵ Wong et al., reporting on a study of 1,318 gay and bisexual men at a public health department clinic in San Francisco, found that gay men who used crystal meth were three times more likely than those who did not to have syphilis, and almost twice as likely to have chlamydia or gonorrhoea.⁹⁶ US studies have also shown an association between HIV status, crystal methamphetamine use and STIs, with HIV-positive men seeking treatment for methamphetamine dependence more likely than their HIV-negative counterparts to have a history of gonorrhoea and STIs more generally.^{97,98}

In Australia, Melbourne Periodic Survey data show that gay men living in Victoria who had used crystal methamphetamine in the past six months were more likely than those who had not to have reported a previous diagnosis of all STIs and both hepatitis B and C (Appendix C).

Confounding factors: Although there is now broad consensus among researchers that an association exists between gay men's use of crystal methamphetamine and rising rates of HIV and STIs, there is substantial disagreement regarding the nature of that association. In their recent review article, Shoptaw and colleagues argue that the research literature does not demonstrate a causal connection between crystal methamphetamine use and HIV seroconversion.⁹⁹ Rawstorne and colleagues in a recent review of Australian data conclude that "crystal use does not necessarily drive unsafe sexual behavior".¹⁰⁰

In an earlier article, Shoptaw and Frosch are critical of the assumption, common to research on MSM and drug use, that gay men "change their HIV-related sexual risk-behavior protocols when under the influence of alcohol and other substances".¹⁰¹ As they and others have pointed out, it is difficult to distinguish between men who alter their sexual behaviours under the influence of illicit drugs, including crystal methamphetamine, and those who are committed to risky or adventurous sex regardless of the "performance-enhancing" substances they use.¹⁰² A number of participants in a Canadian interview-based survey of gay men exploring the relationship between drug use and sex commented that, "drugs and alcohol [were] an 'excuse' for, rather than a 'cause' of unsafe sex behaviors".¹⁰³ Furthermore, the association between crystal methamphetamine use, unsafe sex and HIV seroconversion may have more to do with contextual or contingent factors than with prior intent. As Colfax and Guzman note in a recent review of the epidemiological research literature, "Many studies do not control for other contextual factors [including] partner type, the location(s) where club drug use and sexual behavior occurred, and the presence of other co-morbid conditions".¹⁰⁴

⁹⁵ Shoptaw, S., Reback, C.J. (2007) "Methamphetamine use and infectious disease-related behaviors in men who have sex with men: Implications for interventions". *Addiction* 102 (Suppl. 1), pp. 131-132; Peck, J.A., Shoptaw, S. et al. (2005) "HIV-associated medical, behavioral, and psychiatric characteristics of treatment-seeking, methamphetamine-dependent men who have sex with men". *J Urban Health* 82 (1 Suppl 1), pp. 100-108.

⁹⁶ Wong, W., Chaw, J.K. et al. (2005) "Risk factors for early syphilis among gay and bisexual men seen in and STD Clinic: San Francisco, 2002-2003". *Sex Transm Dis* 32, pp. 458-63.

⁹⁷ Shoptaw, S., Reback, C.J. et al. (2002) "Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behavior among urban gay and bisexual men". *Drug Alcohol Depend* 78:2, pp. 125-34.

⁹⁸ Peck, J.A, Shoptaw, S. et al. (2005) op cit.

⁹⁹ Shoptaw, S. and Reback, C.J. (2006) "Associations between Methamphetamine Use and HIV among Men Who Have Sex with Men: A Model for Guiding Public Policy". *Journal of Urban Health* 83:6, p.1153

¹⁰⁰ Rawstorne, P., Digiusto, E. et al. (2007) "Associations between Crystal Methamphetamine Use and Potentially Unsafe Sexual Activity among Gay Men in Australia". *Arch Sex Behav* 36, 646.

¹⁰¹ Shoptaw, S. and Frosch, D. (2000) "Substance abuse treatment as HIV prevention for MSM". *AIDS and Behavior* 4, pp. 193-203.

¹⁰² See Ruf, M., Lovitt, C. and Imrie, J. (2006) pp. 95-96 op cit; Kutner, B. (2007) "Methamphetamine Use and HIV Risk". *HIV Counselor* 16:2, p. 3.

¹⁰³ Myers, T., Aguinaldo, J.P. et al. (2004) "How drug using men who have sex with men account for substance use: Questioning assumptions of HIV prevention and research". *Addiction Research and Theory* 12:3, pp. 213-229.

¹⁰⁴ Colfax, G. and Guzman, R. (2006) "Club Drugs and HIV Infection: A Review". *Clinical Infectious Diseases* 42, p. 1465. The authors also note a number of other difficulties with this research including: studies that have a cross-sectional design; difficulties in ascertaining whether club drug use in general preceded high-risk sexual behaviour; and polydrug use, which is common and makes it difficult to measure the effect of any single drug on outcomes, pp. 1463-1469.

Increased rates of hepatitis A, B and C

There are few data on the prevalence of viral hepatitis among gay men and even fewer on the relationship between crystal methamphetamine use and increased risk of viral transmission. Hepatitis B and C can both be transmitted through blood-to-blood contact. According to the ANCD, "Methamphetamine injection represents a serious risk factor for the transmission of hepatitis C and other blood-borne viruses in Australia because the majority of dependent methamphetamine users inject the drug".¹⁰⁵ Injection is also common among those gay men who use the drug primarily for sex. *Melbourne Periodic Survey* data suggest that these are older gay men, with over a third aged between 30 and 39 years, who attend the dance/sex party scene (Appendix C). There are few data on where and when these men inject (before, during or after an event?). However, data from *HIV futures five* show that HIV-positive men are over-represented in this population. This is reflected in higher rates of hepatitis C infection among HIV-positive compared with HIV-negative gay male crystal users, 19.5 per cent and 5.8 per cent respectively (Appendix C).

The overall level of dependent use among gay men is hard to gauge. Slavin's interview-based study of gay male crystal methamphetamine users in Sydney found that these men tended to hide their problematic use.¹⁰⁶ Interviewees reported using the drug at dance parties and for sex, but managed to hide the extent of their use and dependency from friends. The men in the study were relatively financially secure and able to plan in advance when, where and with whom they injected. This is not the case, however, for the small number of gay male injecting dependent users who are homeless. The likelihood of sharing needles in an "uncontrolled" environment is higher for this group, placing them at increased risk of hepatitis B, C and HIV infection.

Hepatitis B, like HIV, can also be transmitted through unprotected sex, while hepatitis A is transmitted primarily orally and through faecal matter. Unlike hepatitis C, both hepatitis A and B can be vaccinated against. *HIV futures five* data show that a larger percentage of gay men living in Melbourne who used crystal meth in the past 12 months reported having been vaccinated for hepatitis A and B compared with those who had not used the drug. These differences in rates of vaccination are reflected in the incidence figures with crystal methamphetamine users having lower rates of hepatitis A and B infection compared with non-users, 11.1 per cent and 5.6 per cent compared with 17.5 per cent and 17.1 per cent (Appendix C). These differences may indicate more self-protective behaviours amongst an informed group of drug users.

Compromising HIV-positive men's health

Research suggests that chronic use of crystal methamphetamine may impair the immune system.¹⁰⁷ This has health implications for HIV-positive gay men using the drug. At the same time, behavioural research has linked crystal methamphetamine use to reduced adherence to antiretroviral medication and treatments among this group.¹⁰⁸ GLMA argues that non-adherence can lead to the development of medication-resistant viral strains.¹⁰⁹

Reduced treatment uptakes: In a small US study, Reback and colleagues looked at medication adherence for HIV-positive methamphetamine users.¹¹⁰ They found that for some HIV-positive gay men methamphetamine use was linked to planned non-adherence during sexual activity and to fears of potential interactions between methamphetamine and HIV medications. The study found that un-planned non-adherence was linked to methamphetamine-related disruptions in food and sleep schedules.

¹⁰⁵ Australian National Council on Drugs (2007) p. 12 op cit.

¹⁰⁶ Slavin, S. (2004) op cit.

¹⁰⁷ Ghaziani, A. (October 2005) "Crystal Methamphetamine use and antiretroviral drug resistance: A pilot study of behavioral and clinical correlates". *International Association of Physicians in AIDS Care Monthly*, pp. 297-299.

¹⁰⁸ Reback, C.J., Larkins, S., Shoptaw, S. (2003) "Methamphetamine abuse as a barrier to HIV medication adherence among gay and bisexual men". *AIDS Care* 15:6, pp. 775-785.

¹⁰⁹ GLMA (2006) p. 9 op cit.

¹¹⁰ Reback, C.J., Larkins, S., Shoptaw, S. (2003) "Methamphetamine use as a barrier to HIV medication adherence among gay and bisexual men". *AIDS Care* 15:6, pp. 775-85.

Interference with antiretrovirals: There is a limited body of research indicating that methamphetamine may interact with HIV medications with serious clinical consequences.¹¹¹ Hales et al. report that methamphetamine can interact with protease inhibitors, while Yu and colleagues reported that the drug can interact with HIV medications, leading to increased risk of cardiovascular disease.^{112, 113}

Increased infectivity: Crystal methamphetamine has also been linked to increased susceptibility to HIV, syphilis and hepatitis C, and to increased sexual risk-taking and unsafe sex amongst a small subgroup of gay men who use the drug (See Sections 4.1.2 and 6.1.2 below). According to Shoptaw and Reback, the use of crystal methamphetamine "dries the mucosa and reduces the sensitivity of the rectal and genital areas". This can "facilitate longer and rougher sexual episodes", which, they conclude, "contribute[s] to increased likelihood of bruising and tearing...and increasing opportunities for transmission of infectious disease".¹¹⁴

¹¹¹ Antoniou, T. and Tseng, A.L. (2002) "Interactions between recreational drugs and antiretroviral agents". *Am Pharmacother* 36:10, pp. 1598-613.

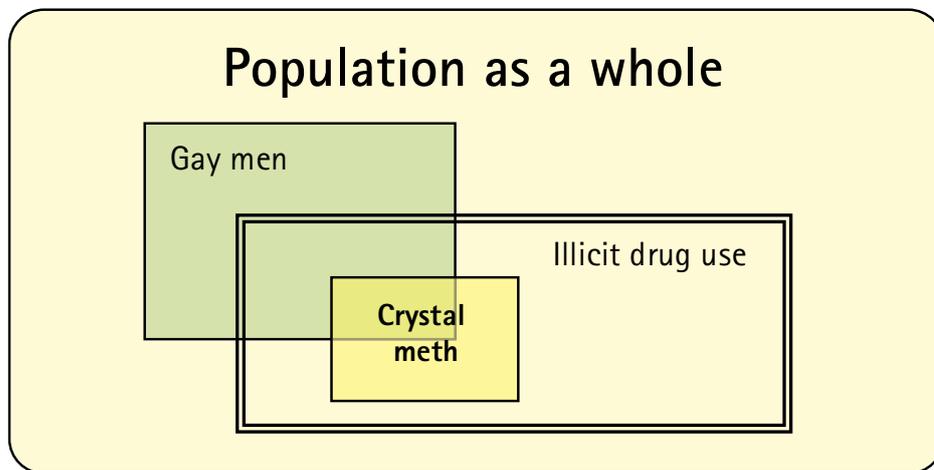
¹¹² Hales, G., Roth, N. et al. (2000) "Possible fatal interaction between protease inhibitors and methamphetamine". *Antivir Ther* 5:1, p. 19.

¹¹³ Yu, Q., Zhang, D. et al. (2003) "Heart disease, methamphetamine and AIDS". *Life Sci* 73:2, pp. 129-140.

¹¹⁴ Shoptaw, S., Reback, C. J. (2007) "Methamphetamine use and infectious disease-related behaviors in men who have sex with men: Implications for interventions". *Addiction* 102 (Suppl. 1), p. 131.

3. Illicit drug use in mainstream communities

Diagram 1 – Locating gay men's use of crystal methamphetamine in relation to mainstream illicit drug use



3.1. Rates and trends

3.1.1. Rates

The US *National Survey on Drug Use and Health* (NSDUH) estimated that 20.4 million Americans, or 8.3 per cent of the population aged 12 years or older, had used an illicit drug in the month prior to the survey (described as "current users").¹¹⁵ In the US, the illicit drugs most commonly used by persons 12 years and older in the past 12 months were: marijuana (14.8 million persons or 6.1 per cent of the population); cocaine (2.4 million or 1.0 per cent); methamphetamine (731,000 or 0.3 per cent¹¹⁶); heroin (338,000 or 0.14 per cent of the population); and ecstasy (528,000 or 0.2 per cent).¹¹⁷ In Australia, the 2004 *National Drug and Alcohol Survey* estimated that 2.5 million Australians, or 15.3 per cent of the population aged 14 years or older, had used at least one illicit drug in the past 12 months.¹¹⁸ The illicit drugs most commonly used by Australians 14 years and older were: marijuana (11.3 per cent); ecstasy (3.4 per cent); meth/amphetamines (3.2 per cent); and heroin or another opiate (0.3 per cent).¹¹⁹

¹¹⁵ Substance Abuse and Mental Health Services Administration (2007) *Results from the 2006 National Survey on Drug Use and Health: National Findings*. Office of Applied Studies, NSDUH Series H-32, DHHS Publication No. SMA 07-4293. Rockville, MD at <http://www.oas.samhsa.gov/NSDUH/2k6NSDUH/2k6results.cfm> [accessed 11/10/07].

¹¹⁶ The NSDUH notes that the methamphetamine figures are rough, as data on the drug has only recently been included in some but not all state-based surveys. Hunt et al. offer a much higher figure (2004) with 12 million Americans having ever used methamphetamine and 1.4 million, or 0.6 per cent of the population, having used the drug in the past month. See Hunt, H., Kuck, S and Truitt, L. (2006) p. 54 op cit.

¹¹⁷ Substance Abuse and Mental Health Services Administration (2007) op cit.

¹¹⁸ Australian Institute of Health and Welfare (2005) *2004 National Drug Strategy Household Survey: Detailed Findings*. AIHW: Canberra.

¹¹⁹ Use of ketamine and GHB (what the *Household Survey* terms "designer drugs") in the last twelve months was 0.3 per cent (45,000) and 0.1 per cent (20,200) respectively. Ketamine and GHB were included in the survey for the first time in 2004, Australian Institute of Health and Welfare (2005) op cit p. 68.

3.1.2. Trends

In the US, rates of illicit drug use would appear to have remained relatively stable since 2001. However, there are limited US population data on national trends in methamphetamine use. Researchers in the US have used other indicators as proxy measures. For example, Hunt et al. argue that increased seizure of crystal methamphetamine labs in Virginia, from one in 2000 to 61 in 2004, is indicative of increasing use of the drug.¹²⁰ Similarly, Lineberry and Bostwick argue that a 500 per cent increase nationally in meth/amphetamine abuse and dependency treatment admissions between 1992 to 2002 indicates increasing rates of methamphetamine use and abuse in the US.¹²¹

In Australia, rates of illicit drug use have fluctuated since data were first collected in 1991, starting at 15.3 per cent in that year and returning to 15.3 per cent in 2004.¹²² However, the proportion of Australian people using illicit drugs has remained stable or declined since 1998.¹²³ The prevalence of methamphetamine use increased in Australia during the 1990s. Between 1995 and 1998, prevalence nearly doubled from 2.1 per cent to 3.7 per cent.¹²⁴ However, since 1998, there has been a slight decline in both lifetime and current prevalence of methamphetamine use. Use among secondary school students has shown a similar trend, peaking in 1999, followed by a slight overall but steady decline.¹²⁵ Data from the Victorian Ecstasy and Related Drug Reporting System (ERDRS) in 2005, which surveys regular ecstasy users, and from the Illicit Drug Reporting System, which surveys injecting drug users, show that rates of crystal methamphetamine have decreased in both groups.¹²⁶ Among ERDRS respondents, rates of reported use of crystal methamphetamine in the six months before the survey fell from 50 per cent in 2003 to 29 per cent in 2005.

3.2. Patterns

3.2.1. Age

In 2006, the highest rate of illicit drug use in the US was among people aged 18 to 20 years (22.2 per cent) followed by 21 to 25 years (18.3 per cent); the rate declined with increasing age for people 26 years and older. Between 2002 and 2006, rates of illicit drug use among 12 to 17 year-olds decreased from 11.6 per cent to 9.8 per cent.¹²⁷ The average age of new amphetamine users aged 12 to 49 years has increased from 18.9 years in 2002 to 22.6 years in 2006.¹²⁸ This is comparable to the average age of initiation of ecstasy of 20.6 years in 2006.¹²⁹

In Australia, in 2004 the average age of first use of methamphetamine was 20 years, and in 79 per cent of cases the drug was supplied by a friend or acquaintance.¹³⁰ Indeed, Australians aged 18 to 29 years were more likely than those in other age groups to have used an illicit drug in the last 12 months; almost one in three (31 per cent) had used at least one illicit drug and one in four (26.0 per cent) had used marijuana.¹³¹ Approximately, one in eight people aged 20 to 29 had used ecstasy and around one in ten had used meth/amphetamine in the last 12 months.¹³² A report by the

¹²⁰ Hunt, H., Kuck, S., Truitt, L. (2006) p. 54 op cit.

¹²¹ Lineberry, T., Bostwick, M. (2006) "Methamphetamine abuse: A perfect storm of complications". *Mayo Clinic Proceedings* 81:1, pp. 77-84.

¹²² 2004 National Household Survey, p. 24.

¹²³ 2004 National Household Survey, p. 24. The proportion of the population aged 14 years and over using marijuana dropped to its lowest level in 2004 (11 per cent).

¹²⁴ McKetin, R. (2007) op cit p. 29.

¹²⁵ McKetin, R. (2007) op cit p. 29. A survey conducted in 2002 found that 93 per cent of Australian secondary school students had never used methamphetamine, and of those who had, the majority had used it only a few times. White, V., Hayman, J. (2004) *Australian secondary schools students' use of over-the-counter and illicit substances in 2002*. National Drug Monograph Series No 56. Department of Health and Ageing: Canberra, p. 26

¹²⁶ IDRS and ERDRS data reported in Jenkinson, R. and Johnston, J. (April 2006) "Methamphetamine Use in Melbourne. Australian's Drug Trend Monitoring System: The IDRS and PDI studies". *Drug trends bulletin*, p. 3. The ERDRS was previously known as the Victorian Party Drugs Initiative (PDI). Results from the ERDRS are also taken from Australian Institute of Health and Welfare (April 2007) op cit.

¹²⁷ Substance Abuse and Mental Health Services Administration (2007) p. 25 op cit.

¹²⁸ Substance Abuse and Mental Health Services Administration (2007) p. 57 op cit.

¹²⁹ Substance Abuse and Mental Health Services Administration (2007) p. 56 op cit.

¹³⁰ 2004 Household Survey (October 2005), p. 110 op cit.

¹³¹ Australian Institute of Health and Welfare (April 2007) Statistics on Drug use in Australia. *Drug Statistics Series Number 18*. AIHW: Canberra, pp. 22-23.

¹³² Australian Institute of Health and Welfare (April 2007) p. 22 op cit.

Australian Institute of Health and Welfare (AIHW), which reviewed the 2004 national data, found that 12 to 15 year olds were "significantly less likely to use any illicit drug...compared with persons in all other age groups between 19 and 39 years".¹³³

The AIHW reports that the prevalence of "ever having used methamphetamine" and of "having used the drug in the past 12 months" increased with age for persons aged 14 to 29 years, with 4.4 per cent or 73,600 of 14 to 19 years olds having used methamphetamine in the last year. This percentage jumps to 10.7 per cent (295,300) for 20 to 29 year olds and drops to 4.1 per cent for 30 to 39 year olds.¹³⁴ In Victoria, according to the *2004 National Household Survey*, 2.8 per cent of the population 14 years and older had used methamphetamine within the past 12 months. Data from the *2004 Victorian Youth Alcohol and Drug Survey* also found that 15 per cent of the 16 to 24 year olds surveyed reported having used methamphetamine in their lifetime and 10 per cent reported use in the previous 12 months.¹³⁵

3.2.2. Frequency and mode of use

According to the *2004 National Household Survey*, the percentage of Australians who reported using an illicit drug in the past 12 months, and are regular users, varies significantly depending on the drug. One in nine (11.3 per cent) people who used marijuana in the last 12 months used the drug daily, compared with 45 per cent of people who reported using heroin or another opiate.¹³⁶ The *2004 National Household Survey* notes that the majority of people who reported using ecstasy in the past 12 months took the drug at dance or rave parties (63.3 per cent).

In Australia, most current methamphetamine users take the drug infrequently (89 per cent use the drug monthly or less often), although it has been estimated that there are approximately 73,000 dependent methamphetamine users in Australia, almost double the estimated number of heroin users.^{137, 138, 139} Dependent users typically inject or smoke the drug.¹⁴⁰ Drabsch and McKetin, in separate articles, argue that there are two distinct groups of "regular Australian crystal methamphetamine users".¹⁴¹ One group consists of older, more experienced users who prefer to inject the drug. They are more likely to be heavy polydrug users with a long history of contact with drug treatment services and the criminal justice system. The other group consists of younger, less experienced users (median age of 22 years versus 33 years for injectors), who prefer to smoke the drug. They have very limited contact with drug treatment services or the criminal justice system and their polydrug use consists primarily of ecstasy and marijuana.¹⁴² Almost two-thirds of regular crystal methamphetamine users inject the drug and a little less than one-third smoke it.

¹³³ Australian Institute of Health and Welfare (April 2007) p. 22 op cit.

¹³⁴ Australian Institute of Health and Welfare (April 2007) p. 26 op cit.

¹³⁵ The main forms of methamphetamine used by this age group were powder (87 per cent) and crystal (19 per cent) and the major mode of administration was snorting (72 per cent) followed by swallowing (59 per cent). Reported in Jenkinson, R., Quinn, B. (2007) *Victorian Drug Trends 2006: Findings from the Illicit Drug Reporting System*. NDARC Technical Report No. 274. Sydney, NSW p. 34.

¹³⁶ 2004 National Household Survey, p. 45.

¹³⁷ McKetin, R. (2007) op cit p. 25.

¹³⁸ McKetin, R., McLaren, J., et al (2005) op cit.

¹³⁹ Drabsch reports that there are currently about 45,000 regular heroin users in Australia. Drabsch, T. (2006) p. 10 op cit.

¹⁴⁰ Australian National Council on Drugs (2007) p. 1 op cit.

¹⁴¹ Drabsch, T. (2006) pp. 11 -12 op cit and McKetin, R. (2007) p. 32 op cit.

¹⁴² McKetin, R. (2007) p. 32 op cit. This is taken from ERDS data which showed that the most common mode of administration of crystal among users of ecstasy was smoking (83 per cent), followed by injecting (12 per cent). Jenkinson, R. and Johnston, J. (April 2006) op cit.

3.2.3. Place of use

Over 65 per cent of recent Australian users of crystal methamphetamine use the drug in their own home or at a friend's house. A significant proportion of people also used the drug at private parties (50 per cent), at public establishments (46 per cent) and at raves/dance parties (46 per cent).¹⁴³ Drabsch notes that a number of commentators have questioned the usefulness of characterising methamphetamine as a party drug, given that the majority of use occurs in private homes and not public establishments. However, a distinction needs to be made between where a drug is taken and where its effects are experienced.¹⁴⁴

3.2.4. Polydrug use

According to a report by the ACT Council of Social Services, available data show that most drug users "use a variety of substances either in combination or at different times". Nonetheless, the document notes that, "there remains a paucity of research on...polydrug use, despite its being a common occurrence".¹⁴⁵ McKetin reports that, among regular crystal methamphetamine users, those who prefer to inject the drug are more likely to be heavy polydrug users, while those who prefer to smoke crystal methamphetamine are more likely to use marijuana and ecstasy (see Section 3.2.2 above). McKetin notes that only 3.8 per cent of regular crystal methamphetamine users report using the drug alone. The results of the *2004 National Household Survey* show that nearly 28 per cent of regular marijuana users reported using meth/amphetamine at the same time as marijuana and that alcohol was the drug most commonly used concurrently with every illicit drug.¹⁴⁶ Data for 2005 from the PDI, which samples regular ecstasy users, found that among this group 71 per cent had ever used crystal methamphetamine, with 42 per cent having used it in the last six months (this figure had risen to 49 per cent in 2006).^{147, 148, 149}

3.2.5. Other social demographic characteristics

In Australia, the highest proportion of recent illicit drug use across all populations was among people who were unemployed (one in three, 31.7 per cent).¹⁵⁰ Paradoxically, a higher proportion of people who were most socioeconomically advantaged were recent users of illicit drugs (16.6 per cent), compared with the other socioeconomic groups. Males were more likely than females to have used an illicit drug in the last 12 months (one in five or 18.2 per cent and one in eight or 12.5 per cent respectively)¹⁵¹ and to have used methamphetamine (4.0 per cent or 321,600 and 2.5 per cent or 210,900 respectively).¹⁵² A greater proportion of people from remote and very remote regions used illicit drugs in the past 12 months (19.0 per cent), while Indigenous people were almost twice as likely as non-Indigenous people to be recent users of illicit drugs (26.9 per cent versus 15.0 per cent).¹⁵³

¹⁴³ Australian Institute of Health and Welfare (April 2007) p. 27 op cit and *2004 Household Survey*, p. 61 op cit.

¹⁴⁴ McKetin et al., in their report on patterns of crystal methamphetamine use in Sydney, noted that although methamphetamine users "would ...take the drug to simply enjoy its effects and would carry on their usual activities or pastimes...they would often take the drug before going out to socialise". McKetin, R., McLaren, J., Kelly, E. (2005) op cit, Executive Summary (no page reference given).

¹⁴⁵ ACT paper, p. 10.

¹⁴⁶ *2004 National Household Survey*, p. 45.

¹⁴⁷ Recently rebadged Ecstasy and Related Drug Reporting System (ERDS). See Australian Institute of Health and Welfare (April 2007) op cit p. 28. Also see footnote 126.

¹⁴⁸ Jenkinson, R., Johnston, J. (April 2006) "Methamphetamine Use in Melbourne. Australian's Drug Trend Monitoring System: The IDRS and PDI studies". *Drug trends bulletin*, p. 3.

¹⁴⁹ Media release, National Drug and Alcohol Research Centre (November 2006) "Methamphetamine – The current state of play: New national research".

¹⁵⁰ *2004 Household Survey*, p. 37 op cit.

¹⁵¹ *2004 Household Survey*, p. 33 op cit.

¹⁵² *2004 Household Survey*, p. 59 op cit.

¹⁵³ *2004 Household Survey*, p. 37 op cit.

4. Crystal methamphetamine and gay men

4.1. Epidemiological data

A comparison of drug and alcohol data from national population-based surveys and from convenience samples of gay men in Australia, the US and the UK have consistently shown higher rates of illicit drug use among gay male communities compared with the population as a whole.¹⁵⁴ In both the US and Australia, gay men report higher rates of illicit drug use across all classes of drugs compared with the population as a whole. US and Australian data also show that rates of illicit drug use among gay men are highest for those living in "urban epicentres" and those reporting higher levels of "gay community attachment".¹⁵⁵ US studies also suggest that gay men are more likely than "heterosexually active men" to report at least one symptom of dysfunctional drug use across all drug classes.¹⁵⁶ These findings are consistent with previous US research comparing rates and effects of illicit drug use between exclusively heterosexually active and gay and bisexual men.¹⁵⁷

In Australia, unpublished data from the *Melbourne Periodic Survey* (2006), *HIV futures five* (2006), *Private Lives* (2006) and the *Melbourne SOPV Survey* (2007) provide more detailed demographic data on rates and patterns of crystal methamphetamine use among gay men in Melbourne. The data are presented below and compared with national and international data on gay men's use of illicit drugs, including crystal methamphetamine in Western urban centres with population profiles similar to Melbourne's.

4.1.1. Rates of use

According to the results of the *Gay Urban Men's Health Study* conducted in the US between 1996 and 1998, 50 per cent of MSM reported having used recreational drugs.¹⁵⁸ Aggregated data from all Australian capital city Periodic Surveys show the figure considerably higher at about 70 per cent, a figure that has remained relatively stable between 2001 and 2005, even though rates of injecting illicit drugs during that period were higher among gay men than among the general population (but were much lower than overall rates of illicit drug use among gay men).¹⁵⁹

¹⁵⁴ Grov, C., Bimbi, D.S., Nanin, J.E., Parsons, J.T. (2006) "Exploring Racial and Ethnic Differences in Recreational Drug Use Among Gay and Bisexual Men in New York City and Los Angeles". *J. Drug Education* 36:2, pp. 105-123. Grov et al. describe some of the methodological problems of comparing data from city-based convenience surveys with data from nationwide representative surveys. Nonetheless, they argue that a review of available data demonstrates higher rates of drug use among samples of gay men compared with the general population. They compare 2003 data from the National Institute of Drug Abuse (NIDA) compiled from national US-based surveys with data from surveys targeting gay men. The surveys used included the National Household Survey on Drug Abuse, the Drug Abuse Warning Network, US Census and the National Longitudinal Survey of Youth.

¹⁵⁵ Fernandez, M.I., Bowen, G.S. et al. (2005) "High rates of club drug use and risky sexual practices among Hispanic men who have sex with men in Miami, Florida". *Substance Use & Misuse* 40, pp. 1347-1362; Green, A.I. (2003) "'Chem friendly': The institutional basis of 'club drug' use in a sample of urban gay men". *Deviant Behavior* 24, pp. 427-447; Hirshfield, S., Remien, H. et al. (2004) "Substance use and high-risk sex among men who have sex with men: A national online study in the USA". *AIDS Care* 16, pp. 1036-1047; and Klitzman, R.L., Greenberg, J.D. et al. (2002) "MDMA ('ecstasy') use, and its association with high risk behaviors, mental health and other factors among gay/bisexual men in New York City". *Drug and Alcohol Dependence* 66, pp. 115-125.

¹⁵⁶ Cochran, S., Ackerman, D. et al. (2004) "Prevalence of non-medical drug use and dependence among homosexually active men and women in the US population". *Addiction* 99, p. 994. Cochran et al. analysed data from the 1996 US National Household Survey on Drug Abuse in which all respondents 18 years and over were asked supplemental questions about the genders of their sexual partners over the past 12 months. Their analysis found "elevated drug use in homosexually active individuals for life-time drug use but that these were greatly attenuated for recent drug use". This is the only time that a question relating to sexual orientation has been included in the National Survey.

¹⁵⁷ Cochran, S. et al. (2004) op cit, Hirschfield et al. (2004) op cit, Klitzman, R.L. et al. (2002), and Stall, R., Paul, R.J. et al. (2001) "Alcohol use, drug use and alcohol-related problems among men who have sex with men: The Urban Men's Health Study". *Addiction* 96, pp. 1589-1601.

¹⁵⁸ Stall, R., Paul, R.J. et al. (2001) op cit.

¹⁵⁹ National Centre in HIV Epidemiology and Clinical Research (2006) *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia: Annual surveillance report 2006*. National Centre in HIV Epidemiology and Clinical Research, the University of New South Wales: Sydney, pp. 40 and 41 respectively.

According to the *Gay Urban Men's Health Study* in the US, the most common illicit drugs used by gay men in the prior six months were marijuana (43.1 per cent), cocaine (21.3 per cent), nitrite inhalant (19.8 per cent), ecstasy (13.4 per cent), and methamphetamine (7.2 per cent). Similar patterns were observed in Los Angeles.¹⁶⁰ While Ruf et al. argue that there are few national data on recreational drug use in the United Kingdom, London data from the *1999 National Gay Men's Sex Survey* show that: 29.6 per cent of respondents reported using ecstasy in the past year; 28.1 per cent cocaine; 22.4 per cent speed; 11.0 per cent ketamine; 11.0 per cent LSD; 2.5 per cent Gamma hydroxy butyrate (GHB), and 2.5 per cent crack cocaine.¹⁶¹ In Australia, results to the *2006 Melbourne Gay Periodic Survey* show that, among gay men living in Melbourne, the most common illicit drugs used in the prior six months were marijuana (40 per cent) followed by nitrite inhalant and ecstasy (both approximately 33 per cent), and crystal methamphetamine (15.1 per cent). Although few of the men in this sample had used "Special K" (ketamine) or GHB, the use of both drugs had almost doubled since 2000.

A review of data from US national and non-representative samples estimates prevalence rates of methamphetamine use in adult MSM at between 12 per cent and 30 per cent.¹⁶² However, the results of the *US Urban Gay Men's Drug Use and Health Study* put the percentage of urban gay men who used crystal methamphetamine in the prior six months lower, at 7.2 per cent. The *UK Gay Men's Sex Survey* in 2005 reported the percentage of gay men who took crystal methamphetamine in the past 12 months was considerably lower than in the US, at three per cent with 0.3 per cent reporting that they took the drug on a weekly basis.¹⁶³ However, a London survey (which relied on three different sampling techniques) estimated that ten per cent of gay men living in London had taken crystal methamphetamine in the past 12 months. Most of these gay men who used the drug did so infrequently, only once or twice over a 12 month period.¹⁶⁴ In Australia, aggregated data from all capital city Periodic Surveys show that rates of crystal methamphetamine use among gay men have increased over the last six years, with 6.3 per cent of respondents in 2000 reporting having used the drug compared with 15.1 per cent of respondents in 2006.

According to the findings of the *2006 Melbourne Periodic Survey*, 14.5 per cent of gay men in Victoria had used crystal methamphetamine in the past 12 months, with the majority living in inner suburban Melbourne (Appendix C). *Private Lives*, which surveyed use in the past six months, put the figure slightly lower at 10.7 per cent (Appendix C). In both surveys, the drug was used rarely, with the majority of users reporting having used the drug once in the nominated time period (up to a maximum of five times in the *Private Lives* data). Rates were lower still for gay men attending SOPV in Melbourne, with 7.7 per cent of those surveyed reporting having used crystal methamphetamine in the past six months (Appendix C). However, rates of use were significantly higher among HIV-positive men in Melbourne, with 23 per cent of respondents in *HIV futures five* reporting having used crystal methamphetamine in the 12 months prior to the survey (Appendix C).

¹⁶⁰ Stall, R., Paul, R.J. et al. (2001) op cit.

¹⁶¹ Ruf, M., Lovitt, C. and Imrie, J. (2006) "Recreational drug use and sexual risk practice among men who have sex with men in the United Kingdom". *Sex. Transm. Inf.* 82, p. 95

¹⁶² Garofalo, R., Mustanski, B.S. et al. (2007) "Methamphetamine and young men who have sex with men: Understanding patterns and correlates of use and the association with HIV-related sexual risk". *Arch Pediatr Adolesc Med* 161:6, p. 591. A recent report by the Gay and Lesbian Medical Association puts methamphetamine use among gay men in the US at between 10 and 20 per cent, "a rate at least ten times higher than the general population". Gay and Lesbian Medical Association (2006) *Breaking the grip: Treating Crystal Methamphetamine Addiction Among Gay and Bisexual Men*. GLMA, San Francisco: US. Shoptaw offers a somewhat lower estimate, suggesting that methamphetamine use among urban gay and bisexual men in the US is five to ten times higher than among the general population. Shoptaw, S. (2006) "Methamphetamine use in urban gay and bisexual populations". *Top HIV Med* 14:2, pp. 84-87.

¹⁶³ Hickson, F., Weatherburn, P. et al. (2007) *Consuming Passions: Findings from the United Kingdom Gay Men's Sex Survey 2005*. Sigma Research, London.

¹⁶⁴ Bolding, G., Hart, G. et al. (2006) "Use of crystal methamphetamine among gay men in London". *Addiction* 101, p. 1628.

4.1.2. Patterns of use

Recreational use

During the past decade, methamphetamine use and risky sex, particularly within the context of specific, highly charged sexual environments (e.g., the internet, circuit parties, bathhouses, and sex clubs) have been reported in adult MSM in multiple urban centres.¹⁶⁵

Studies show that rates of illicit drug use, including crystal methamphetamine use, are higher among gay men attending dance or circuit parties in cities across the US, Canada and Australia than for other groups of gay men and the population at large.^{166,167,168} Two recent US reviews of gay men's use of club drugs argue that illicit drug use is normative in these settings.^{169,170} Lee et al. report on one circuit party at which 86 per cent of the gay men attending reported having used at least one illicit substance on the day.¹⁷¹ The study also found that polydrug use was common, with the majority of gay men reporting using two or three drugs on the same occasion and a small but significant minority reporting using seven.¹⁷² The little research on recreational or club drug use among gay men in Australia supports US findings. In an early study, Southgate and Hopwood argued that by the mid 1990s in Sydney illegal drug use had become normalised on the gay commercial scene.¹⁷³

However, recent studies in Australia and the US suggest that the gay commercial scene is undergoing significant changes with a multiplication and diversification of gay male social spaces and that these changes are having a profound effect on gay men's recreational drug use and in particular their use of crystal methamphetamine.¹⁷⁴ Hurley and Prestage argue that, over the last few years, a new sexual subculture has begun to take shape at the intersection of the gay commercial and private sex-party scenes.¹⁷⁵ This subculture represents a movement away from large, all-day events to a niche market of smaller dance and fetish parties that cater to a diversifying range of social and sexual tastes.¹⁷⁶ These include barebacking (defined as intentional unprotected anal intercourse in a situation of appreciable or known risk¹⁷⁷), fisting, and the use of sexual prosthetics such as sex toys and performance enhancing drugs (what McInnes et al. have called "adventurous sex"¹⁷⁸). Hurley and Prestage have coined the term "intensive sex partying" to describe this subculture. Preliminary research suggests that this subculture is subject to serosorting (selecting sex

¹⁶⁵ Garofalo, R., Mustanski, B.S. et al. (2007) "Methamphetamine and young men who have sex with men: Understanding patterns and correlates of use and the association with HIV-related sexual risk". *Arch Pediatr Adolesc Med* 161:6, p. 591.

¹⁶⁶ Ross, M., Mattison, A. and Franklin Jr., D.R. (2003) "Club Drugs and Sex on Drugs Are Associated with Different Motivations for Gay Circuit Party Attendance in Men". *Substance Use and Misuse* 38:8, pp. 1173-1183, and Colfax, G., Mansergh, G. et al. (2001) "Drug Use and Sexual Risk Behavior Among Gay and Bisexual Men Who Attend Circuit Parties: A Venue-Based Comparison". *Journal of Acquired Immune Deficiency Syndromes* 28: pp. 373-379. See also Maxwell, J.C. (2004) *Patterns of Club Drug Use in the U.S.*, 2004. The Centre for Excellence in Drug Epidemiology. The Gulf Coast Addiction Technology Transfer Centre, The University of Texas at Austin.

¹⁶⁷ Craib, K.J., Weber, A.C. et al. (2000) "Comparison of sexual behaviours, unprotected sex, and substance use between two independent cohorts of gay and bisexual men". *AIDS* 14, pp. 303-311.

¹⁶⁸ Lewis, L., Ross, M. (1995) *A select body: the gay dance party subculture and the HIV/AIDS pandemic*. Cassel: London.

¹⁶⁹ Drumright et al., in a review of the links between the use of club drugs and rising rates of HIV among gay men, argue that there is no clear or shared understanding of what constitutes a club drug in the research literature. The authors opt for a broad range of criteria which include: class of drug; physiological effects; mode of administration and method of production, among others; and characteristics which include: association with party, dance, or club scenes; a reputation for being relatively "safe" among users; often used in combination with one another; and a perceived effect of enhancing social and/or sexual competence among users. Drumright, L.N., Patterson, T.L. and Strathdee, S.A. (2006) "Club Drugs as Causal Risk Factors in HIV Acquisition Among Men Who Have Sex with Men: A Review". *Substance Use & Misuse* 41, p. 1553.

¹⁷⁰ Colfax, G., Guzman, R. (2006) op cit. and Romanelli, F., Smith, K.M., Pomeroy, C. (2003) op cit.

¹⁷¹ Lee, S. J., Galanter, M. et al. (2003) op cit.

¹⁷² Lee, S. J., Galanter, M. et al. (2003) op cit.

¹⁷³ Southgate, E., Hopwood, M. (1999) op cit.

¹⁷⁴ As early as 2001, Mansergh argued that a "uniform definition of a circuit party does not exist as these parties continue to evolve". Mansergh, G., Colfax, G. et al. (2001) "The Circuit Party Men's Health Survey: Findings and Implications for Gay and Bisexual Men". *American Journal of Public Health* 91:6, p. 953.

¹⁷⁵ Private sex parties and sex events have always been part of gay male culture. What is new, however, is how these private events have become part of the gay commercial scene and how the social and sexual tastes to which they cater have been structured by recent changes in gay community and identity including: the increasing confidence and visibility of sexual minorities; changing attitudes toward HIV and AIDS; and increasing numbers of sexually active and socially engaged HIV-positive gay men.

¹⁷⁶ Hurley, M., Prestage, G. (2007) "Intensive sex partying: Contextual aspects of 'sexual dysfunction'". *Journal of HIV Therapy* 12:2, in press.

¹⁷⁷ Carballo-Diéguez, A., Bauermeister, J. (2004) "Barebacking: intentional condomless anal sex in HIV-risk contexts—reasons for and against it". *Journal of Homosexuality* 47:1, pp. 1-16.

¹⁷⁸ McInnes, D., Bollen, J., Race, K. (2002) *Sexual Learning and Adventurous Sex*. Sydney: University of Western Sydney.

partners of the same HIV infection status), with an over-representation of HIV-positive and older gay men, and higher rates of crystal methamphetamine use.¹⁷⁹

However, a recent survey of recreational drug use among men aged 18 to 29 years attending dance clubs in New York suggests that a new generation of younger gay men may be using crystal methamphetamine more as a social lubricant than as a sexual stimulant.¹⁸⁰ Less than half the sample of gay and bisexual men in the study said they used crystal methamphetamine for sex and only one in eight reported first use of the drug in a sexual setting.¹⁸¹ Only one of the men recruited to the study reported being HIV-positive. This transcontinental comparison suggests that different groups of gay men use crystal methamphetamine differently and for different effects, and that variation in usage maps onto differences in age, HIV-status and contexts of use. In turn, these differences map onto changes occurring within gay culture and the gay commercial scene.

Regional variation

In both the US and Australia, there were significant regional and city-based variations in rates and patterns of illicit drug use in both mainstream and gay communities. For example, the US *National Survey on Drug Use and Health* reported that in 2006 rates of reported methamphetamine in the past month were highest in the West at 1.6 per cent of the population aged 12 years and older, but fell to 0.3 per cent in the Northeast.¹⁸² Studies show that up until the late 1990s rates of use among gay men were also higher in the major urban centres on the West Coast, including San Francisco and Los Angeles.¹⁸³ However, a more recent survey by Koblin and Chesney et al. shows little difference in rates of use between the East Coast, Midwest and the West Coast, estimating use by the gay male population at about 9 per cent.¹⁸⁴

Aggregated data from all Australian capital city Periodic Surveys showed that, between 2001 and 2005, there was more extensive illicit drug use among gay men living in Sydney than among gay men living in other capital cities. Rates of injecting drug use among gay men over the same period were higher in Sydney (varying between 7.0 per cent and 5.2 per cent) than in Melbourne (varying between 4.0 per cent and 4.7 per cent).

One of the respondents in the Delphi Scan residing in Perth argued that Perth's proximity to South East Asian drug markets and its relative isolation from Australian drug distribution networks has led to rates and patterns of crystal methamphetamine use in both mainstream and gay communities that were significantly different to those in other Australian capital cities. McKetin makes a similar case regarding increased supply and use of methamphetamine in South-western Queensland (see Section 2.1.2).

Place of use

US and UK studies suggest that the majority of gay men who take crystal methamphetamine do so at home or at a friend's place—a view about gay men in Melbourne shared by over 60 per cent of the respondents to the Delphi Scan. However, over 70 per cent of those respondents believed that the drug was taken before attending a gay commercial venue (Appendix F).

¹⁷⁹ Smith, G., Worth, H., Kippax, S. (2004) *Sexual adventurousness among gay men in Sydney. Monograph 3*. National Centre in HIV Social Research, The University of New South Wales: Sydney, p. 26.

¹⁸⁰ Parsons, J.T. (2007) "Methamphetamine use among young gay and bisexual men in New York City". *Tenth Annual CHAPS Conference*, London.

¹⁸¹ In this respect, these young gay men's use of crystal methamphetamine may have more in common with "straight party boys" than the older gay men on the intensive sex partying scene. This may reflect a blurring of the boundary between gay and straight culture and, in particular, commercial youth cultures.

¹⁸² According to Hunt et al., over the past decade the production of methamphetamine, including the crystal form of the drug, has moved into the Midwest and South. They argue that, once a local market has been established for methamphetamine and demand grows, foreign manufacturers "enter the market providing far larger quantities and more efficient networks of distribution". Hunt, H., Kuck, S. and Truitt, L. (2006) p. 54 op cit.

¹⁸³ GLMA (November 2006), pp. 4-5.

¹⁸⁴ Koblin, B.A., Chesney, M.A. et al. (2003) "High-risk behaviors among men who have sex with men in 6 US cities: Baseline data from the EXPLORE Study". *American Journal of Public Health* 93:6, 926-932.

Results from the *Melbourne SOPV Survey* showed that, of the 7.7 per cent of the sample (22 men) who had reported using crystal methamphetamine in the prior six months, 64 per cent had taken the drug at home. Only one interviewee had taken crystal methamphetamine at an SOPV. However, 36 per cent reported having taken the drug at a dance party, raising the possibility that some of this use may have preceded a visit to an SOPV (Appendix C).

Garofalo and colleagues offer a list of what they refer to as the "highly charged sexual environments" in the US where gay men are most likely to take recreational drugs for primarily sexual purposes, which includes "the internet, circuit parties, bathhouses, and sex clubs". Little research has been done on how gay men use the internet to find sexual partners. However, one study has found that a significant proportion of gay men take methamphetamine before or while online in the expectation of hooking up with sexual partners while using.¹⁸⁵ Anecdotal reports suggest that this practice, though not common, may be increasing among gay men in Sydney and Melbourne.

Age/Youth

The GLMA argues that rates of crystal methamphetamine use among young gay men in the US are high and have been increasing since the mid-1990s. Another US study of young gay men showed that rates of crystal methamphetamine use had increased significantly between 1994 and 1997.¹⁸⁶ A more recent study by Thiede et al. of gay men between 15 and 22 years living in seven major urban centres in the US found that 28 per cent of respondents had ever used methamphetamine and 20 per cent reported use in the previous six months.¹⁸⁷ Nearly six per cent of respondents reported using the drug at least once a week. Preliminary data from the US National HIV Behavioral Surveillance System show a 21 per cent annual prevalence of methamphetamine use among MSM aged 18 to 24 years compared with 12 per cent in the overall adult MSM sample.¹⁸⁸

In Australia, 2006 *Melbourne Periodic Survey* data show that the mean age of gay male crystal methamphetamine users in Victoria was 33 years.¹⁸⁹ A third of those using crystal methamphetamine were aged between 30 and 39 years (34.1 per cent), with few gay men over 50 years using the drug (Appendix C). According to *Private Lives* data, 95 per cent of gay male crystal methamphetamine users in Melbourne are aged between 20 and 50 years, with less than 15 per cent under 25 years. The rate falls to less than 1.2 per cent for young men aged 16 to 19 years. It must be remembered that the overall numbers of crystal methamphetamine users is small in this study. According to *HIV futures five*, the average age of HIV-positive gay men who use crystal methamphetamine is significantly higher at 39.6 years (Appendix C).

HIV status

A number of US studies have shown that gay men who use methamphetamine have increased rates of HIV (and STIs) compared with gay men who do not use the drug.¹⁹⁰ The association between HIV infection and methamphetamine is even more pronounced for gay men who are dependent users.¹⁹¹

¹⁸⁵ Benotsch, E.G., Kalichman, S. and Cage, M. (2002) "Men who have met sex partners via the internet: Prevalence, predictors, and implication for HIV prevention". *Arch Sex Behav.* 31:2, pp. 177-83.

¹⁸⁶ McNall, M. and Ramefeldt, G. (1999) "Relationship of amphetamine and other substance use to unprotected intercourse among young men who have sex with men". *Arch Pediatr Adolesc Med* 153:11, pp. 1130-35.

¹⁸⁷ Theide, H., Valleroy, L.A. et al. (2003) "Regional patterns and correlates of substance use among young men who have sex with men in 7 US urban areas". *Am J Public Health* 93:11, pp. 1915-21.

¹⁸⁸ Garofalo, R., Mustanski, B.S. et al. (2007) p. 592 op cit.

¹⁸⁹ This is similar to an average age of 34.7 years for gay men attending SOPVs who report using crystal methamphetamine (see Appendix C).

¹⁹⁰ Wong, W., Chaw, J.K. et al. (2005) "Risk factors for early syphilis among gay and bisexual men seen in an STD clinic: San Francisco, 2002-2003". *Sex Transm Dis* 32:7, pp. 458-63.

¹⁹¹ Peck, J.A., Shoptaw, S. et al. (2005) "HIV-associated medical, behavioral, and psychiatric characteristics of treatment-seeking, methamphetamine-dependent men who have sex with men". *J Urban Health* 82 (1 Suppl 1), pp. i100-8.

In a recent study of gay men attending the Los Angeles Gay and Lesbian Center, nearly one third of the men newly diagnosed with HIV were using crystal meth. The 2006 preliminary data indicated that "gay men who used crystal methamphetamine in the previous 12 months were five times more likely to test positive for HIV than those who did not."¹⁹² A study released in 2007, looking at drug use patterns among people seeking treatment at the Whitman-Walker's Elizabeth Taylor Health Center in Washington DC between 2000 and 2006, found that, in 2006, 73 per cent of clients with methamphetamine use were HIV positive.¹⁹³ Another more recent US study of MSM found that 6.3 per cent of methamphetamine users were HIV positive compared with 2.1 per cent of non-users.¹⁹⁴ A Chicago-based study of young MSM aged between 16 and 24 years found higher rates of crystal methamphetamine use among HIV-positive men.¹⁹⁵ Moreover, 23 per cent of the HIV-positive men reported using methamphetamine in the past year (2004-05) compared with 11 per cent of the HIV-negative men.¹⁹⁶

Bolding et al. surveyed crystal methamphetamine use among three different samples of gay men living in London: men attending gyms; men attending an HIV treatment clinic; and men seeking an HIV test at HIV testing clinics.¹⁹⁷ The study showed greater use of crystal methamphetamine in the past year among HIV-positive than HIV-negative gay men, 12.6 per cent and 8.3 per cent respectively. However, rates of crystal methamphetamine use among HIV-positive men varied significantly between the gym and treatment clinic samples, 23 per cent versus 12.6 per cent respectively. Bolding et al. suggest that the gym sample is representative of gay men who attend dance or circuit parties, and that HIV-positive gay men who are part of this scene may take crystal methamphetamine at rates higher than HIV-positive gay men generally.

According to 2006 *Melbourne Periodic Survey* data, gay men using crystal methamphetamine were more likely to be HIV positive than gay men not using the drug, 17.9 per cent and 6.4 per cent respectively (Appendix C). *Private Lives* data show that 30.7 per cent of gay men who reported using crystal methamphetamine also reported a previous HIV-positive diagnosis compared with 4.9 per cent of users who reported a previous HIV-negative diagnosis (Appendix C). Results from the *Melbourne SOPV Survey* show that, of the gay men who reported using crystal methamphetamine, 31.8 per cent reported being HIV-positive compared with 8.3 per cent who reported being HIV-negative (Appendix C).

Polydrug use

US studies show that gay men who use methamphetamine rarely use the drug alone. Lee et al. report that, among gay men attending circuit parties, the majority of users used two or three drugs in combination, with a small percentage of respondents reporting that they used up to seven drugs on the same occasion.¹⁹⁸ Halkitis et al. report that many gay male crystal methamphetamine users take the drug not only in combination with other illicit drugs but also with a range of prescription drugs.¹⁹⁹

In Australia, results from the *Melbourne SOPV Survey* show higher rates of polydrug use among gay men attending SOPVs who report using crystal methamphetamine in the past six months, compared with those attendees who report not using the drug over the same period. For example, of those gay men who reported having used crystal methamphetamine, 95.5 per cent indicated having also used ecstasy, 77.3 per cent speed, 77.3 per cent marijuana,

¹⁹² Ocamb, K. (2007) "Crystal Meth Epidemic Increasing". *IN Los Angeles Magazine* 10:5 (no page numbers given) at http://www.inlamag.com/1005/special_reports/sprt1.html [accessed 30/08/07].

¹⁹³ Perry, E. (23 March 2007) "Three new studies cite HIV risk of meth use: Number of clinics seeking help for club drug abuse on the rise". *washingtonblade.com* at http://www.washblade.com/print.cfm?content_id=10236 [accessed 30/08/07].

¹⁹⁴ Buchacz, K., McFarland, W. et al. (2005) "Amphetamine use is associated with increased HIV incidence among men who have sex with men in San Francisco". *AIDS* 19, pp. 1423-24.

¹⁹⁵ Garofalo, R., Mustanski, B.S. et al. (2007) "Methamphetamine and young men who have sex with men: Understanding patterns and correlates of use and the association with HIV-related sexual risk". *Arch Pediatr Adolesc Med* 161:6, pp. 591-6

¹⁹⁶ Garofalo, R., Mustanski, B.S. et al. (2007) p. 594 op cit.

¹⁹⁷ "In general, HIV-positive men in London were more likely to use crystal meth than HIV-negative men, a differential also seen in the United States" p. 1628. Bolding, G., Hart, G. et al. (2006) "Use of crystal methamphetamine among gay men in London". *Addiction* 101, pp. 1622-1630.

¹⁹⁸ Lee, S. J. , Galanter, M. et al. (2003) op cit.

¹⁹⁹ Halkitis, P.N., Green, K.A. and Mourgues, P. (2005) "Longitudinal study of methamphetamine use among gay and bisexual men in New York City: findings from project BUMPS". *J Urban Health* 82 (1 Suppl 1), pp. 18-25.

and 40.9 per cent Viagra™, compared with rates of use of 16.7 per cent, 6.1 per cent, 20.9 per cent, and 9.9 per cent respectively for those who reported not having used crystal methamphetamine. Eighty-six per cent of those who used crystal methamphetamine reported having used one or more other drugs at the same time (however, this figure drops to 70 per cent if we adjust for alcohol use) (Appendix C). According to the latest *Melbourne Periodic Survey* data, over 90 per cent of gay men who took crystal methamphetamine did so in combination with one or more other drugs, with 70 per cent of crystal methamphetamine users indicating using five or more drugs in the past 12 months (though not necessarily all on the same occasion) (Appendix C).

In a US study of HIV-positive men who used crystal methamphetamine, Patterson et al. found that only 5 per cent used the drug alone, while 31 per cent combined their use of crystal methamphetamine with poppers (amyl nitrite) and marijuana, and 64 per cent with “harder” drugs including cocaine, heroin, hallucinogens and ketamine.²⁰⁰ Results from *HIV futures five* show that polydrug use in Victoria is higher among HIV-positive gay men who report having used crystal methamphetamine in the past 12 months compared with HIV-positive men who have not used the drug over the same period. Also, HIV-positive gay men who report having used crystal methamphetamine are more likely than those who have not used the drug to report having used marijuana (78.4 versus 44.0 per cent), ecstasy (70.3 versus 18.4 per cent) and Viagra™ (56.8 versus 19.2 per cent). HIV-positive gay men who have used the drug are also more likely to report having injected speed (40.5 versus 4.0 per cent) (Appendix C). This suggests increased rates of injecting crystal methamphetamine among HIV-positive male users and increased risk of blood-borne viral transmission.

4.2. Behavioural data

Behavioural studies identify two discrete but overlapping motivations for gay men’s use of crystal methamphetamine. Psychological research has focused on the relationship between homophobia and increased rates of illicit drug use among gay men. It highlights gay men’s individualised use of illicit drugs and is part of a growing body of research that understands discrimination and abuse as key social determinants of mental health and as major risk factors for mental illness.²⁰¹ A second and much larger body of ethnographic and epidemiological research focuses on gay men’s recreational and collective drug use, termed by Dowsett et al. as “gay ways of using”.²⁰² According to this research, gay men take drugs communally either to increase their sociability or to enhance their sexual capacity.²⁰³ However, a number of researchers in this field argue that crystal methamphetamine is unique because, unlike other illicit substances, it acts both as a social lubricant and as a sexual stimulant.²⁰⁴ Crystal methamphetamine is seen to be particularly dangerous because it blurs the already fluid boundary between sociability and sex, which many argue is indicative of gay communal spaces.²⁰⁵

Halkitis et al. argue that this distinction between two different motivations for gay men’s illicit drug use—the one pathological and individualised, the other recreational and collective—is provisional, and that either one can overlap with or lead to the other.²⁰⁶ For example, gay men who are at risk of problematic or dependent drug use because of their particular experiences of homophobic abuse and discrimination may first begin using drugs recreationally as they enter the commercial gay scene. Over time, however, recreational use may give way to dependent, privatised use as a means of coping with homophobia and its effects.

²⁰⁰ Patterson, T.L., Semple, S.J. et al. (2005) “Methamphetamine-using HIV-positive men who have sex with men: correlates of polydrug use”. *J Urban Health* 82 (Suppl 1), pp. i120–126.

²⁰¹ Victorian Health Promotion Foundation (2005) *A Plan for Action 2005–2007: Promoting Mental Health and Well-being*. Carlton.

²⁰² Dowsett, G., Wain, D. and Keys, D. (2005) “Good Gay Men Don’t Get ‘Messy’: Injecting Drug Use and Gay Community”. *Sexuality Research & Social Policy* 2:1, pp. 23–39.

²⁰³ As early as 1995, Lewis and Ross, in a study of what they called the “gay dance party phenomenon” in Sydney, identified these two major patterns of recreational drug use among gay men: the first associated with socialising; the second with having sex. Lewis, L. and Ross, M. (1995) *op cit*.

²⁰⁴ According to Sadonwick, this duality of purpose makes crystal methamphetamine the “quintessential gay drug”. Quoted in Halkitis, P., Parsons, J.T. and Wilton, L. (2003) “An exploratory study of contextual and situational factors related to methamphetamine use among gay and bisexual men in New York City”. *Journal of Drug Issues* 33:2, p. 414.

²⁰⁵ What Garofalo and colleagues refer to as “sexualised social spaces”. Garofalo, R., Mustanski, B.S. et al. (2007) *op cit*.

²⁰⁶ Halkitis, P., Parsons, J.T. and Wilton, L. (2003) *op cit*.

4.2.1. Coping with homophobia

*To the extent that homosexual youth feel alienated from heterosexual families, churches, friendship networks, and the larger community they use drugs and alcohol as an anaesthetic agent to buffer anxiety, depression, and social isolation.*²⁰⁷

Halkitis and colleagues, in a review of US data on crystal methamphetamine using gay men from Project BUMPS, a longitudinal study of club-drug-using gay men in New York City, concluded that a substantial proportion of gay men use the drug to cope with "the tensions of socialisation and the prejudice experienced for being gay". Halkitis's work is indicative of a range of US psychological studies that suggest many gay men use illicit drugs as a means of self-medication to deal with their experiences of homophobic abuse and discrimination.²⁰⁸

The GLMA argues that increased use of crystal methamphetamine by HIV-positive compared with HIV-negative gay men may be due to the added pressures "of dealing with fears and stigma surrounding the disease".²⁰⁹ A number of participants in a study that looked at HIV-positive gay men's motives for using crystal methamphetamine reported that it provided "a temporary escape

from being positive" and helped them "manage negative self-perception and social rejection associated with being HIV-positive".²¹⁰ Studies have also linked increased illicit drug use among same-sex-attracted young people with their experiences of homophobia at home and at school, and with the fears and pressures associated with coming-out.²¹¹ Hillier and colleagues, in an Australian national survey of the health and well-being of same-sex-attracted young people, found a significant relationship between their experiences of homophobic bullying and abuse and increased rates of illicit drug use.²¹²

However, there are a number of difficulties in interpreting these psychological studies. Peck and colleagues, in a survey of 263 gay male crystal methamphetamine users attending an outpatient treatment research clinic in Los Angeles between 1996 and 2001, concluded, "There was no evidence of the oft-heard claim that individuals use methamphetamine because they feel depressed".²¹³ Rather, they found that use of crystal methamphetamine led to depression with "those users who had recently abstained from the drug reporting feeling less depressed". They also noted that current ratings of depression had no predictive association with future methamphetamine use.

It is also difficult to disentangle homophobia from other risk factors for problematic or dependent drug use among gay men. As the ANCD notes, drug dependence "is most likely to occur among individuals who have several risk factors [including] depression, academic failure, deviant peer bonding and who have few protective factors that guard against

²⁰⁷ Green, A. I. (2003) "Chem friendly": The institutional basis of 'club drug' use in a sample of urban gay men". *Deviant Behavior* 24, p. 427.

²⁰⁸ Leonard, W. (ed.) (2002) *What's the difference? Health issues of major concern to gay, lesbian, bisexual, transgender and intersex (GLBTI) Victorians*. Ministerial Advisory Committee on Gay and Lesbian Health. Victorian Department of Human Services, Melbourne; *Health and sexual diversity: A health and well-being action plan for gay, lesbian, bisexual, transgender and intersex (GLBTI) Victorians*. (2003) Prepared by W. Leonard on behalf of the Ministerial Advisory Committee on Gay and Lesbian Health. Victorian Department of Human Services, Melbourne; Clatts, M.C., Goldsamt, L. A., and Yi, H. (2005) "Club drug use among young gay men who have sex with men in NYC: A preliminary epidemiological profile". *Subst Use & Misuse* 40:9, pp. 1317-30; Diaz, R.M., Heckert, A.L. and Sanchez, J. (2005) "Reasons for stimulant use among Latino gay men in San Francisco: A comparison between methamphetamine and cocaine users". *J Urban Health* 82(Suppl 1), pp. i71-78; Halkitis, P.N., Fischgrund, B.N. and Parsons, J.T. (2005) "Explanations for methamphetamine use among gay and bisexual men in New York City". *Subst Use & Misuse* 40:9-10, pp. 1331-345; Kurtz, S.P. (2005) op cit; and Stall et al. (2001) op cit. See also GLMA (2006) p. 5 op cit.

²⁰⁹ GLMA (2006) p. 5 op cit.

²¹⁰ Semple, S.J., Patterson, T.L. and Grant, I. (2002) "Motivations associated with methamphetamine use among HIV-positive men who have sex with men". *Journal of Substance Abuse Treatment* 22:3, pp. 149-156. See also Halkitis, P.N., Green, K.A., and Mourgues, P. (2005) "Longitudinal investigation of methamphetamine use among gay and bisexual men in New York City: Findings from Project BUMPS". *J Urban Health* 82: (Suppl) pp. i8-25. However, according to *HIV futures five*, a slightly higher percentage of HIV-positive gay men who had not used crystal methamphetamine in the past 12 months reported "ever having been diagnosed with a mental health condition" than HIV-positive men who had used the drug, 49 per cent and 42 per cent respectively (Appendix C).

²¹¹ Green, A.I. (2003) op cit.

²¹² Hillier, L., Turner, A., and Mitchell, A. (2005) *Writing Themselves In Again*. ARCSHS, LaTrobe University: Melbourne.

²¹³ Peck, J.A., Reback, C.J. et al. (2005) "Sustained Reductions in Drug Use and Depression Symptoms from Treatment for Drug Abuse in Methamphetamine-Dependent Gay and Bisexual Men". *Journal of Urban Health* 82:1 (Suppl 1), pp. i100.

drug use [italics added].²¹⁴ Furthermore, few if any studies have shown that gay men have a predilection for crystal methamphetamine over other illicit drugs in dealing with mental health problems related to their experiences of homophobia. Halkitis is alone in suggesting that crystal methamphetamine's unique pharmacology may make it the anti-depressant of choice among gay men.²¹⁵

4.2.2. Sexual and social practices

Sociability versus sex

A number of studies have compared gay men's recreational use of crystal methamphetamine with their use of other illicit drugs to determine the degree to which the use of any given drug is more strongly associated with increased sociability or with enhanced sexual interest or capacity. Schilder and colleagues, in a 2001 study, compared the use of ecstasy and crystal methamphetamine among 24 gay men recruited as part of a study of the life histories of a cohort of gay and bisexual men living in Vancouver.²¹⁶ While both drugs were used to increase sociability and staying power ("to keep partying on"), crystal methamphetamine use was more strongly associated with increased sexual desire, activity and stamina. Respondents described ecstasy as "induc[ing] emotional intimacy and a physical, generally non-sexual arousal", while crystal methamphetamine was associated with "erotic arousal, including anonymous...and group sex".²¹⁷

Ross et al., in a survey of 1,169 gay men attending three different circuit parties in the US in 1999, reported on their motives for attending the parties and the drugs they used.²¹⁸ They found two discrete but "significantly...correlated dimensions", one social, the other sensation-seeking.²¹⁹ While regression analysis indicated that alcohol, ecstasy and GHB use were significantly associated with both sociability and sensation-seeking, methamphetamine and multiple drug use were more strongly associated with sensation-seeking and having had sex on club drugs. However, the researchers concluded that, for those who attend parties for social reasons, there is little or no association between club drug use and sex. They also note that younger respondents were "significantly more likely to report social reasons for attendance".²²⁰ These findings suggest that individual behaviours are determined less by the pharmacology of particular drugs and more by the social contexts in which those drugs are used.

Sexual practice

"The popularity of methamphetamine among gay men", writes Garofalo, "seems to stem from its association with sexual activity and its strategic use by gay and bisexual men in negotiating sexual encounters and increasing sexual pleasure [emphasis added]".²²¹ Or, as Halkitis and Green put it more ominously, "What holds across research on methamphetamine use among urban gay and bisexual men is the strong association between the drug, heightened libido, sexual adventurism and sexual endurance [emphasis added]".²²² Determining the nature of this association has become the focus of a growing body of research and, in particular, the relationship between gay men's use of

²¹⁴ Australian National Council on Drugs (2007) p. 9 op cit.

²¹⁵ Halkitis argues that the association between gay men's illicit drug use and homophobia "may be particularly true for methamphetamine because the drug gives users a feeling of acceptance and attractiveness and diminishes any pre-existing fears, anxieties and depression". Halkitis, P.N., Mukherjee, P.P. and Palamar, J.J. (2007) "Multi-level modeling to explain methamphetamine use among gay and bisexual men". *Addiction* 102 (Suppl. 1), p.77.

²¹⁶ Schilder, A.J., Lampien, T. et al. (2005) "Crystal Methamphetamine and Ecstasy Differ in Relation to Unsafe Sex Among Young Gay Men". *Canadian Journal of Public Health* 96:5, pp. 340-343.

²¹⁷ Schilder, A.J., Lampien, T. et al. (2005) p. 342 op cit.

²¹⁸ Ross, M.W., Mattison, A.M. and Franklin, D.R. (2003) "Club Drugs and Sex on Drugs are Associated with Different Motivations for Gay Circuit Party Attendance in Men". *Substance Use & Misuse* 38:8, pp. 1173-1183.

²¹⁹ The social they characterised as, "to be with friends and dance", and the sensation seeking, "to have sex and drugs". Ross, M.W., Mattison, A.M. and Franklin, D.R. (2003) p. 1174.

²²⁰ Ross, M.W., Mattison, A.M. and Franklin, D.R. (2003) p. 1179 op cit. These findings are consistent with those of Parsons, J.T. (2007), reporting on recent patterns of club drug use among young gay and bisexual men in New York City. See Section 4.1.2 and footnote 178 for details.

²²¹ Garofalo, R., Mustanski, B.S. et al. (2007) "Methamphetamine and Young Men Who Have Sex With Men: Understanding Patterns and Correlates of Use and the Association With HIV-Related Risk". *Arch Pediatr Adolesc Med* 161, pp. 591-596.

²²² Green, I. and Halkitis, P. (2005) p. 320 op cit.

crystal methamphetamine and increased sexual risk taking, and rising rates of HIV and STI transmission among subpopulations of gay men.^{223,224}

Increased sexual activity: Data suggest that gay men who use crystal methamphetamine are more sexually active than gay men who do not use the drug: they report sex with more partners over a given period and are more likely to have multiple sexual partners. Halkitis and colleagues, in a preliminary study of situational factors related to methamphetamine use among gay and bisexual men resident in New York City, found that an individual's number of sexual encounters was highly related to his overall frequency of crystal methamphetamine use ($r=.548$, $p<.001$).²²⁵ A study of 2,991 MSM attending HIV testing clinics in San Francisco between 2000 and 2002 found that, compared with non-methamphetamine users, gay men who used the drug were more likely to report ten or more sex partners in the past year.²²⁶ Schilder et al., in an interview-based study of 24 young gay and bisexual men living in Vancouver, found that use of crystal methamphetamine was associated with group sex.²²⁷

In Australia, according to the findings of the latest *Melbourne Periodic Survey*, 39 per cent of gay men who had used crystal methamphetamine reported having had ten or more sexual partners in the past 12 months compared with 23.5 per cent of non-users. Users were more likely than non-users to have had casual sex in this period (78.1 per cent versus 64.7 per cent) (Appendix C). Data from the *Melbourne SOPV Survey* show that men who had attended SOPVs and used crystal methamphetamine in the past six months were more likely than men who had not used the drug to report having had 11 or more casual partners in the last year, 63.6 per cent versus 28.0 per cent. Only 13.6 per cent of men who had used crystal methamphetamine reported no casual partners in the last 12 months compared with nearly 30 per cent of men who had not used the drug. Just over 45 per cent of the men who had used crystal methamphetamine in the last 12 months reported having used the drug when they last had sex. Of these, 20 per cent reported having sex with one other person while using crystal methamphetamine, while 80 per cent reported having sex with between two and ten people. (Appendix C).

Melbourne Periodic Survey data show that HIV-positive gay men who use crystal methamphetamine are more sexually active than HIV-positive men who do not. HIV-positive users are more likely than HIV-positive non-users to report having any casual sex (80.8 per cent versus 33.6 per cent), while HIV-positive users in a regular relationship are less likely than HIV-positive non-users in a regular relationship to have sex only with their regular partner (11.5 per cent versus 21.2 per cent) (Appendix C).

Increased rates of unprotected anal intercourse (UAI): In a US study of 4,295 HIV-negative men, Koblin et al. found that drug use, including methamphetamine use, was independently associated with unprotected anal sex with individuals of discordant HIV status.²²⁸ According to the results of the latest *Melbourne Periodic Survey*, among those men who reported having had casual sex in the past 12 months, users of crystal methamphetamine were more likely than non-users to report having engaged in UAI with casual partners (hereafter UAIC), both insertive and receptive (44.8 per cent versus 26.1 per cent). That said, data from the latest *Melbourne Periodic Survey* also show that HIV-

²²³ Semple, S.J., Patterson, T.L. and Grant, I. (2002) "Motivations associated with methamphetamine use among HIV+ men who have sex with men". *J Subst Abuse Treat*, 2002 Apr:22:3, pp. 149-56.; Díaz, R.M., Heckert, A.L., Sánchez, J. (2005) "Reasons for Stimulant Use among Latino Gay Men in San Francisco: A comparison between methamphetamine and cocaine users". *Journal of Urban Health* 82:1 (1Suppl) pp. i71-78; Halkitis, P.N., Green, K.A. et al. (2005) "Methamphetamine Use, Sexual Behavior, and HIV Seroconversion" *Journal of Gay and Lesbian Psychotherapy* 10:3/4, pp. 95-109; Halkitis, P. N., Fischgrund, B. and Parsons, J. (2005) "Explanations for Methamphetamine Use Among Gay and Bisexual Men in New York City" *Substance Use & Misuse* 40:9-10, pp. 1331 -1345; Halkitis, P.N., Shrem, M.T. and Martin, F.W. (2005) "Sexual behavior patterns of methamphetamine-using gay and bisexual men". *Substance Use & Misuse*. 40, pp. 703-719. For an early article showing an association between non-injecting use of speed and increases in the number of sexual partners, an increase in unprotected sexual activity and increased risk of contracting an STI, including HIV, see Molitor, F., Traux, S.R. et al. (1998) "Association of methamphetamine use during sex with risky sexual behaviors and HIV infection among non-injection drug users". *Western Journal of Medicine* 168, pp. 93-97.

²²⁴ Or as Shoptaw and colleagues put it, somewhat more technically if not cautiously in their review of this research, "data indicate the role of methamphetamine use in concomitant behaviors that increase risk of HIV transmission". Shoptaw, S. and Reback, C.J. (2006) "Associations between Methamphetamine Use and HIV among Men Who Have Sex with Men: A Model for Guiding Public Policy". *Journal of Urban Health* 83:6, p. 1153.

²²⁵ Halkitis, P.N., Parsons, J.T. and Wilton, L. (2003) "An Exploratory Study of Contextual and Situational Factors Related to Methamphetamine Use among Gay and Bisexual Men in New York City". *Journal of Drug Issues* 33:2, p. 421.

²²⁶ Buchacz, K., McFarland, W. et al. (2005) p. 1423 op cit.

²²⁷ Schilder, A.J., Lampinen, T.M. et al. (2005) "Crystal Methamphetamine and Ecstasy Differ in Relation to Unsafe Sex among Young Gay Men". *Canadian Journal of Public Health* 96:5, p. 342.

²²⁸ Koblin, B.A., Husnik, M.J. et al. (2006) "Risk factors for HIV infection among men who have sex with men". *AIDS* 20:5, pp. 731-739.

positive gay men who use crystal methamphetamine are more likely to know the HIV status of their casual partners and more likely to report having sex with other HIV-positive men than HIV-positive men who do not use the drugs (Appendix C). The data also suggest that there is no significant variation in rates of condom use with casual partners between HIV-positive gay men who use crystal methamphetamine and HIV-positive men who do not use the drug (Appendix C).

However, US studies present a very different picture. A study of 261 HIV-positive gay male methamphetamine users in San Diego found that heavy users (64 per cent of the sample) reported more unprotected sex with more partners of seronegative or unknown status.²²⁹ Ruf et al., in a review of US data, conclude that, "these studies have shown the use of 'party drugs' including crystal methamphetamine, to be independently associated with unprotected anal intercourse with casual partners of unknown HIV serostatus, particularly among HIV-positive men."²³⁰ Drumright and co-researchers, reporting on the results of a computer-based questionnaire of 194 MSM recently infected with HIV, found that methamphetamine was the strongest predictor of UAI before or after recent infection.²³¹ This includes sex with both "main" partner and casual partners. These studies are representative of a growing body of research that Drumright et al. claim demonstrates, "that the use of methamphetamine just before or during sexual activity increases the likelihood of UAI among MSM."²³²

In a US study of 310 young MSM aged 16 to 24 years, Garofalo and associates report that those who had used crystal methamphetamine in the past 12 months (13 per cent of the sample) reported more unintended risky sex than those who had used other illicit substances. A community-based survey of 496 ethnically diverse young MSM living in Chicago found that those who used methamphetamine were "more than six times more likely than their peers to report unprotected anal intercourse in the past 12 months, more than four times more likely to report multiple anal sex partners in the past three months, and substantially more likely to report sex in a bath house or sex club, with a partner met via the Internet, in exchange for resources with older partners."²³³ No comparable Australian data on young gay men were found through the literature review.

Impotence and "erectile dysfunction medications": A small number of studies suggest that higher doses of crystal methamphetamine may lead to erectile dysfunction.²³⁴ According to these studies, some gay male users who experience crystal meth-induced impotence (colloquially termed "crystal dick") take erectile dysfunction medications such as Viagra™. Others choose instead to move from being the insertive to the receptive partner during anal sex.²³⁵ Both of these reactions to impotence can increase the risk of HIV transmission: the use of erectile dysfunction drugs may prolong sex and increase the chances of tissue damage, while being the receptive partner in anal sex increases the chances of being exposed to blood or semen.²³⁶ A cross-sectional random telephone survey of 1,976 gay men living in San Francisco found that Viagra™ used with methamphetamine was independently associated with a higher risk of serodiscordant unprotected insertive and receptive intercourse and a recent diagnosis of a sexually transmitted disease.²³⁷ Data from the *Melbourne SOPV Survey* show that, among gay men who had attended an SOPV in the past six months, 40.9 per cent of the men who had used crystal methamphetamine had also used Viagra™, compared with 9.9 per cent of the men who had not used crystal methamphetamine (Appendix C). Data from *HIV futures five* show that HIV-positive men who use crystal methamphetamine are more likely than HIV-positive men who do not also to use Viagra™, 56.8 per cent versus 19.2 per cent (Appendix C).

²²⁹ Patterson, T.L., Semple, S.J. et al. (2005) op cit.

²³⁰ Ruf, M., Lovitt, C. and Imrie, J. (2006) p. 96 op cit.

²³¹ The other drugs predicted for were volatile nitrites, GHB, marijuana and erectile dysfunction medication (such as Viagra). Drumright, L.N., Little, S.J. et al. (2006) "Unprotected Anal Intercourse and Substance Use Among Men Who Have Sex With Men With Recent HIV Infection". *J Acquir Immune Defic Syndr* 43:3, pp. 344-350.

²³² Drumright, L.N., Little, S.J. et al. (2006) p. 347 op cit.

²³³ Garofalo, R., Mustanski, B.S. et al. (2007) p. 594 op cit.

²³⁴ Shoptaw, S. and Reback, C.J. (2007) "Methamphetamine use and infectious disease-related behaviors in men who have sex with men: Implications for interventions". *Addiction* 102 (Suppl. 1), p. 131.

²³⁵ Mansergh, G., Shouse, R.L., et al. (2006) "Methamphetamine and sildenafil (Viagra) use are linked to unprotected receptive and insertive anal sex, respectively, in sample of men who have sex with men". *Sexually Transmitted Infections* 86:2, pp. 131-143; Crosby, R., DiClements, R.J. (2004) "Use of recreational Viagra among men having sex with men". *Sex Transm Infect.* 80, pp. 466-468 and Paul, J.P., Pollack, L. et al. (2005) "Viagra (sildenafil) use in a population-based sample of men who have sex with men". *Sex Transm Dis.* 32, pp. 531-533.

²³⁶ Vittinghoff, E., Douglas, J. et al. (1999) "Per-contact risk of human immunodeficiency virus transmission between male sexual partners". *American Journal of Epidemiology* 150:3, pp. 306-311.

²³⁷ Spindler, H.H., Scheer, S. et al. (2007) "Viagra, methamphetamine, and HIV risk: Results from a probability sample of MSM, San Francisco". *Sexually Transmitted Diseases* 34:8, p. 586.

4.3. Findings from the Delphi Scan

4.3.1. General impressions

The results of the Delphi Scan showed considerable disagreement among experts regarding the scale and scope of crystal methamphetamine use in both mainstream and gay communities (see Appendix F for details). All respondents noted the lack of detailed research on rates and patterns of crystal methamphetamine use in Australia and many argued that public policy was driven more by anecdote and media hype than by population-based epidemiological and behavioural data. Nonetheless, the majority believed that media reports of increasing rates of use among the general population were indicative of increasing rates of use among gay men in Victoria over the last two years. However, a significant minority believed that use in mainstream and gay communities in Australia had peaked in 2002/03 and was now declining.

4.3.2. Crystal methamphetamine use among gay men

There was broad agreement among respondents that use of crystal methamphetamine among gay men in Melbourne was only slightly higher than among the general population. The majority believed that gay men used crystal methamphetamine for similar reasons as other non-gay recreational drug users: to enhance sociability and to heighten sexual experiences. However, a majority also argued that illicit drug use had become normalised within gay male culture and that this increased the pressure on men entering the gay commercial scene (and in particular young gay men) to take drugs recreationally.

There was broad agreement that a significant percentage of gay male users managed their crystal methamphetamine use with minimum disruption to their lives. The majority of the expert group believed that most gay male users took the drug at home or at a friend's place before attending a gay commercial or sex venue. They believed that smoking was the most common mode of administering the drug among this group, followed by ingesting and snorting.

4.3.3. Problematic crystal methamphetamine use among gay men

There was consensus among respondents that problematic use of crystal methamphetamine was associated with serious disruptions to a user's everyday life which may include a negative effect on their health. All but two respondents agreed that only a very small percentage of gay men who used crystal methamphetamine were problematic users.

A large number of respondents associated problematic use with a hard core group of gay men who used the drug primarily for sex. They believed that among this group or subpopulation there was an overrepresentation of HIV-positive gay men and that injecting was the preferred mode of administering the drug.

The majority of respondents believed that the normalisation of illicit drug use in the gay male community made it not only very difficult to discuss the negatives associated with drug use, including crystal methamphetamine, but also acted as a disincentive for gay men experiencing problematic use to seek professional help. Almost all respondents argued that policy addressing the harms associated with gay men's use of crystal methamphetamine should be developed as part of a comprehensive approach to gay men's use of illicit drugs more broadly.

4.3.4. Minimising the harms to gay men associated with their use of crystal methamphetamine

Half of the respondents were not aware of any crystal methamphetamine prevention campaigns or resources targeting gay men. While a number suggested that such resources were needed, others argued that crystal methamphetamine use among gay men was not a major problem and that targeted prevention may be counterproductive, fuelling misperceptions concerning the scope and effects of its use. However, there was broad consensus regarding the need for resources and information that tackled the normalisation of illicit drug use in the gay male community and that enabled a more open discussion of problematic use and encouraged gay men to seek professional assistance.

There was considerable disagreement among respondents regarding the capacity of mainstream health services, including drug and alcohol treatment services, to meet the needs of problematic and dependent gay male crystal methamphetamine users. While a number of respondents believed that mainstream services were aware of and able to deal with issues specific to gay men, an equal number identified the lack of such sensitivities as a major gap in existing services. Similarly, there was disagreement over whether or not there was a need for gay specialist drug and alcohol services or programs to deal with gay men's problematic drug use, including crystal methamphetamine.

The level of disagreement among respondents on a number of key issues, including the scale and scope of crystal methamphetamine use among gay men and appropriate prevention and treatment options for this group, highlight the lack of Melbourne-based information in this area.

5. Treatment and prevention

5.1. Treatment options

It is only recently that drug and alcohol services have begun to develop and implement strategies for tackling methamphetamine dependence and abuse.²³⁸ These fall into two broad approaches: pharmacological interventions and behavioural therapies. However, the ANCD notes that, to date, few treatment approaches to methamphetamine dependency have been comprehensively evaluated.²³⁹

5.1.1. Pharmacotherapy

In the US, no pharmacological treatments have been approved by the FDA for the treatment of methamphetamine dependence.²⁴⁰ In some jurisdictions, dexamphetamine has been used as a substitute pharmacotherapy modelled on drug substitution therapies for the treatment of heroin and cocaine addiction.²⁴¹ However, evaluations undertaken in the UK suggest that whatever effects dexamphetamine has in reducing methamphetamine dependence are offset by increased risk of psychosis, continued illicit use of the drug, and diversion of prescribed dexamphetamine.²⁴² In Australia, substitution therapies for the treatment of methamphetamine dependence are not routinely available.²⁴³

A number of clinical trials are being undertaken in the US to develop alternative pharmacotherapies for the treatment of methamphetamine abuse. The National Institute on Drug Abuse Medications Program has been evaluating a range of medications for their ability to reduce methamphetamine use, with bupropin, an anti-depressant, providing promising results.²⁴⁴ In Australia the National Drug and Alcohol Research Centre is currently managing a randomised control trial of modafinil, a central nervous system stimulant, for methamphetamine and cocaine users. The results suggest that modafinil can significantly reduce heavy users' cravings for crystal methamphetamine.²⁴⁵ However, it has been argued that drug substitution based on models for treating opioid addiction may be neither appropriate nor effective when treating stimulant abuse and addiction.²⁴⁶ Researchers at Turning Point Alcohol and Drug Centre argue that, whatever the success of methamphetamine substitution pharmacotherapies, the most effective approaches to treatment will include substitution "as part of a range of treatment options available to problematic methamphetamine users".²⁴⁷

5.1.2. Behavioural interventions

Current evidence suggests that the most effective approaches to reducing methamphetamine dependence are psychosocial ones.²⁴⁸ Cognitive Behavioural Therapy (CBT) has been the mainstay of behavioural interventions to date. However, recent trials suggest that Contingency Management (providing incentives or rewards including monetary payment for abstinence) may also be effective.²⁴⁹

²³⁸ Maxwell, J.C. (2005) "Emerging research on methamphetamine." *Curr Opin Psychiatry* 18, p. 239.

²³⁹ Australian National Council on Drugs (2007) p. 10 op cit.

²⁴⁰ Vocci, F., Ling, W. (2005) "Medications development: Successes and challenges." *Pharmacol Ther.* 108:1, pp. 94–108.

²⁴¹ Cretzmeyer, M., Sarrazin, M., et al. (2003) "Treatment of amphetamine abuse: Research findings and clinical directions." *J Subst Abuse Treat* 24: pp. 267–277.

²⁴² Shearer, J. and Gowing, L. (2004) "Pharmacological interventions" in Baker, A., Lee, K., Jenner, L. (eds.) *Models of intervention and care for psychostimulant users* (2nd Ed.) National Drug Strategy Monograph Series No. 51. Commonwealth of Australia, Canberra.

²⁴³ Australian National Council on Drugs (2007) p. 10 op cit.

²⁴⁴ Vocci, F., Ling, W. (2005) op cit.

²⁴⁵ Benson, K. (1 Dec. 2007) "Sleep drug can halve ice addicts' cravings." *The Sydney Morning Herald*.

²⁴⁶ Topp, L. (2006) "Pharmacological Interventions." *Of Substance* 4:3, p. 12

²⁴⁷ Dr. Nicole Lee, Program Leader, Clinical Research, Turning Point Alcohol and Drug Centre, quoted in Topp, L. (2006) p. 12 op cit.

²⁴⁸ GLMA (November 2006) pp. 11–12 op cit.

²⁴⁹ GLMA (November 2006) p. 11 op cit and Australian National Council on Drugs (2007) p. 10 op cit.

Cognitive Behavioural Therapy

CBT is fundamental to the treatment of all substance dependencies and to other addictive behaviours such as gambling.²⁵⁰ It aims to provide individuals with insights into the motivations and structures underpinning their dependent behaviours, information on the science of addiction, and techniques to recognise and cope with their personal addictive triggers and abstain from substance use.²⁵¹ Numerous studies have shown the effectiveness of CBT in reducing methamphetamine dependence. CBT-based interventions trialled in Australia significantly reduced levels of methamphetamine use, increased abstinence rates, and alleviated methamphetamine-related harms.²⁵² Lee, in a recent presentation at The University of Melbourne, cited studies showing that as few as two CBT sessions could increase abstinence among dependent crystal methamphetamine users.²⁵³ In 2003, the Australian Government published guidelines on how to conduct a brief CBT-based intervention for methamphetamine users.²⁵⁴

Contingency management

Contingency management works by providing incentives and rewards for continued abstinence. In the US, a common form of reward are vouchers that can be exchanged for goods and services of increasing value for each consecutive demonstration of abstinence.²⁵⁵ A comparative US study of the effectiveness of Contingency Management compared with CBT in reducing methamphetamine dependence found that clients receiving Contingency Management, or Contingency Management in combination with CBT, performed better than those receiving CBT alone.²⁵⁶ Lee, however, has argued that Contingency Management may be more effective in reducing dependent methamphetamine use while clients are receiving treatment, but that CBT may prove more effective in maintaining reduced methamphetamine use in the longer term for this group.²⁵⁷

5.2. Treatment for gay men

Shoptaw and colleagues, in a review of the research literature on treatment options for gay male methamphetamine users, argue that while Contingency Management and CBT have been shown to reduce crystal methamphetamine use among this population in the US, the most effective treatment strategies may involve a combination of both.²⁵⁸ However, a number of studies suggest that in order to achieve sustained reductions in methamphetamine use among dependent gay male users (including abstinence), these psychosocial interventions need to be part of broader community support or reinforcement strategies.²⁵⁹ In a separate study, Shoptaw et al. report on a contingency management program for gay men experiencing problematic crystal methamphetamine use in San Francisco. The results of the program, they argue, suggest that contingency management for this population is most effective when delivered within a community setting with appropriate community supports and follow-up.²⁶⁰

²⁵⁰ McKay, J.R., Alterman, A.I. et al. (1997) "Group counselling versus individualised relapse prevention aftercare following intensive outpatient treatment of cocaine dependence: Initial results". *J Consult Clin Psychol* 65:5, pp. 778-788.

²⁵¹ Shoptaw, S., Reback, C.J. et al. (2005) "Behavioural treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men". *Drug Alcohol Depend* 78:2, pp. 125-34.

²⁵² Baker, A., Lee, N.K. et al. (2005) "Brief cognitive behavioural interventions for regular amphetamine users: A step in the right direction". *Addiction* 100, pp. 367-378.

²⁵³ Lee, N.K. (11 October 2007) "Skating on thin ice: What's the story with crystal meth aka "Ice"?" Alice Barber Lecture. School of Behavioural Sciences, The University of Melbourne.

²⁵⁴ Baker, A., Kay-Lampien, F. et al. (2003) *A Brief Cognitive Behavioural Intervention for Regular Methamphetamine Users*. Australian Government Department of Health and Ageing.

²⁵⁵ Higgins, S.T., Alessi, S.M., Dantona, R.L. (2002) "Voucher-based incentives: A substance abuse treatment innovation". *Addict Behav* 27:6, pp. 887-910.

²⁵⁶ Shoptaw, S., Reback, C.J. et al. (2005) op cit.

²⁵⁷ Lee, N.K. (11 October 2007) op cit.

²⁵⁸ Shoptaw, S., Reback, C.J. et al. (2005) op cit.

²⁵⁹ Irwin, T.W. (2006) "Strategies for the Treatment of Methamphetamine Use Disorders Among Gay and Bisexual Men". *Journal of Gay and Lesbian Psychotherapy* 10:3/4, pp. 13-138 and Kanouse, D.E., Bluthenthal, R.N. et al. (2005) "Recruiting drug-using men who have sex with men into behavioral interventions: A two-stage approach". *J Urban Health* 82:1 (Suppl 1), pp. i109-119.

²⁶⁰ Shoptaw, S., Klausner, J.D. et al. (2006) "A public health response to the methamphetamine epidemic: The implementation of contingency management to treat methamphetamine dependence". *BMC Public Health* 6. Accessed on line with no page references given. <http://www.biomedcentral.com/1471-2458/6/214>

Peck and colleagues evaluated the effectiveness of different treatment regimes in reducing both methamphetamine use and depression among a sample of 263 gay male crystal methamphetamine users attending an outpatient treatment research clinic in

Los Angeles between 1996 and 2001.²⁶¹ Participants were randomly assigned to one of four treatment conditions: CBT; Contingency Management; CBT plus Contingency Management; and a gay-specific CBT. They found that all four treatment conditions were effective in reducing methamphetamine use and depressive symptoms for up to one year follow-up. They conclude that, "the specific type of...treatment may be of little consequence over the long term. Data indicate that it is more important that individuals enter a structured treatment program where they are actively confronting and addressing their substance abuse".²⁶²

A number of researchers have called for the development of methamphetamine treatment services specific to gay men.²⁶³ In a survey of 174 methamphetamine-using gay men visiting STI clinics in Seattle and San Francisco, 62 per cent reported a strong desire to decrease or stop their use of the drug and 70 per cent had attempted to do so. Nonetheless, only 12 per cent had ever engaged in drug treatment.²⁶⁴ The GLMA argues that the report's findings demonstrate a "severe lack of appropriate treatment services to serve [the] needs [of this population]".²⁶⁵ Although the *Melbourne SOPV Survey* did not ask questions about problematic drug use, it is significant that only nine per cent of the gay men who reported using crystal methamphetamine in the past six months had sought assistance for their drug use in general, while only one per cent had sought assistance for problems related to crystal methamphetamine use in particular (Appendix C).

The Australian reported that fewer than half of Australia's 73,000 "methamphetamine addicts" are currently accessing treatment.²⁶⁶ Lee argues that this underutilisation of existing services is due to the widely held misperception that there are no effective treatments for methamphetamine dependence and a greater unwillingness among dependent users to consider or admit that their use is problematic.²⁶⁷ Those who advocate for gay-specific methamphetamine treatment services acknowledge that these generic barriers are also true for gay men. However, they argue that gay men face a number of additional barriers or disincentives when considering seeking professional assistance for problematic crystal methamphetamine use.²⁶⁸

Ethnographic and social research has highlighted the importance of recreational drug use in the formation of individual and collective gay male identities (see Section 6.3). It has also highlighted certain gay men's over-investment in recreational drug use as a consequence. Commentators have argued that only the pleasurable aspects of recreational drug use are publicly acknowledged within the gay community, and that there is a prohibition on discussing problematic use. Dowsett et al., and Slavin have separately argued that there is a moral hierarchy of drug use among gay men in Australia and that injecting and dependent users are seen as failing to manage their drug use and are often ostracised from gay networks and events.^{269, 270, 271}

²⁶¹ Peck, J.A., Reback, C.J. et al. (2005) op cit.

²⁶² Peck, J.A., Reback, C.J. et al. (2005) p. i107 op cit.

²⁶³ Maxwell, J.C. (2005) op cit; Irwin, T.W. (2006) op cit; GLMA (November 2006) and Rawson, R.A., Gonzales, R., Brethen, P. (2002) "Treatment of methamphetamine use disorders: An update". *Journal of Substance Abuse Treatment* 23 p. 149.

²⁶⁴ Menza, T.W., Colfax, G. et al. (2006) "Interest in a Methamphetamine Intervention Among Men Who Have Sex With Men". *Sex Transm Dis*

²⁶⁵ GLMA (November 2006) p. 10 op cit.

²⁶⁶ Creswell, A. (1 February 2007) "Many ice addicts not being treated". *The Australian* at <http://www.theaustralian.news.com.au/story/0,20867,21151117-23289,00.html> [accessed 30/08/07].

²⁶⁷ Lee, N.K. (11 October 2007) op cit.

²⁶⁸ Freese, T.E., Obert, J. et al. (2000) "Methamphetamine Abuse: Issues for Special Populations". *Journal of Psychoactive Drugs* 32:2.

²⁶⁹ Dowsett, G., Wain, D., Keys, D. (2005) op cit.

²⁷⁰ Slavin, S. (2004) op cit.

²⁷¹ Slavin points out, however, that despite the pejorative distinction that gay male crystal meth users make between "recreational use" and "junkies", the distinction can work to minimise drug-related harm. The distinction may pressure some gay men, who might otherwise become dependent users, to keep their use "functional". Slavin (2004) pp. 455 -56 op cit.

At the same time, many gay men do not believe that mainstream drug and alcohol treatment services are sensitive to, aware of and able to meet their specific needs. Rawson and colleagues argue that given the synergies between gay men's methamphetamine use and their social and sexual behaviours, they are unlikely to use treatment services that involve discussions with mixed client groups that include heterosexuals.²⁷² Others have argued that, in the light of the strong association between methamphetamine use and high-risk sexual behaviour among gay men, these issues should be addressed as part of a single program or service.²⁷³ It is not surprising, then, that treatment of problematic crystal methamphetamine use among gay men is increasingly being developed and funded under the rubric of HIV prevention.

There was considerable disagreement among respondents in the Delphi Scan on whether there was a need for specialist gay male crystal methamphetamine drug and alcohol services (Appendix F). However, there was broad agreement that mainstream services lacked gay-sensitive models of service delivery and drug and alcohol treatment options. A majority of respondents argued that there is a pressing need for mainstream services to develop gay-sensitive policy and programs and professional training that includes: material on gay cultural norms and practices; sex positive attitudes to gay male sex; and an understanding of the links between sexual health, including HIV and STI transmission, and drug and alcohol use for this client group.

5.3. Prevention and promotion

Over the last five years, crystal methamphetamine prevention campaigns targeting gay men have been run in New York, San Francisco and Sydney. The campaigns have used a range of social marketing techniques, from scare tactics showing before and after pictures of meth-ravaged bodies ("Meth=Death" in New York, and "Crystal Mess" and "Life or Meth" in San Francisco, all run in 2004), to booklets and posters providing information on the effects of crystal meth and where to go for help ("CRYSTAL: Effects.Health.Sex.Help" run by ACON in Sydney, launched in December 2005).²⁷⁴ It is notoriously difficult to assess the effectiveness of public health campaigns and their impact on individual behaviours. The crystal methamphetamine campaign ran in San Francisco has been credited with having had a major effect in reversing rising rates of HIV and STI transmission in that city over the past two years. However, no detailed evaluation of the campaign has been reported in the research literature.

These campaigns have all focused on individuals and individual behaviours, and they have not engaged, to any significant degree, with gay community attitudes toward crystal methamphetamine and illicit drug use in general. Although a number of the campaigns have highlighted drug-related harm, including the physical and mental health consequences of problematic use, most have focused on the links between crystal methamphetamine use and increased risk of HIV transmission. It is no coincidence that these campaigns have been developed in cities with relatively large gay male populations and where rates of HIV infection among these populations have been on the rise over the last five years.²⁷⁵ In this respect, these campaigns are of one piece with the individualistic approaches to treating gay men's problematic drug use outlined in Section 5.2 above.

All campaigns in Australia so far have been managed by community sector organisations with varying levels of government financial support.²⁷⁶ A recent study canvassing the opinions of senior drug policy health officials from all Australian States/Territories and the Commonwealth identified the lack of a clear conceptual framework for prevention as the second priority area in drug and alcohol policy.²⁷⁷ Given this lack, it is not surprising that governments at all levels in Australia have only just begun to consider ways of reducing crystal methamphetamine-related harm. It is even less surprising that they have yet to turn their attention to the needs of specific populations or "at-risk groups".

²⁷² Rawson, R.A., Gonzales, R. and Brethen, P. (2002) p. 149 op cit.

²⁷³ Freese, T.E., Obert, J. et al. (2000) p. 181 op cit. and Shoptaw, S. and Reback, C.J. (2007) "Methamphetamine use and infectious disease-related behaviors in men who have sex with men: Implications for interventions". *Addiction* 102 (Suppl.1), pp. 130-135.

²⁷⁴ Clayton, S., Degenhardt, L. et al. (28-29 September 2006) "'Emerald City or Crystal Town?': Crystal methamphetamine use in the GLBT community in NSW". Presentation at The Australasian Amphetamine Conference, Sydney Convention Centre, Darling Harbour. <http://www.amphetamines.org.au/presentations.htm> [accesses 26/04/07].

²⁷⁵ Victorian Department of Human Services (2007) p. 6 op cit.

²⁷⁶ ACON has managed the Sydney campaigns, with funding from NSW Health.

²⁷⁷ Ritter, A. (2007) *Monograph No. 15: Priority areas in illicit drug policy: Perspectives of policy makers*. DPMP Monograph Series. Sydney: National Drug and Alcohol Research Centre, p. 5.

6. Framing policy

6.1. Summarising the data

6.1.1. Mainstream versus gay community data

The data show that rates of illicit drug use, including crystal methamphetamine use, among gay men in Australia, the UK and the US are higher than their respective national averages. In Melbourne, rates of crystal methamphetamine use among gay men have been estimated at between 8 and 15 per cent compared with 3.2 per cent for the population as a whole. National Australian surveys show that, since 2000, rates of illicit drug use in the Australian population, including crystal methamphetamine use, have stabilised if not dropped slightly. This is also true for rates of use among young people. However, at the same time, according to *Melbourne Periodic Survey* data, rates of crystal methamphetamine use among gay men living in Melbourne have increased from 6.3 per cent in 2000 to 15.1 per cent in 2006.

National data show that illicit drug use is highest among 18 to 29 year olds, with 31 per cent having used an illicit drug in the past 12 months and 10 per cent of 20 to 29 year olds having used methamphetamine in the same period. In contrast, combined data from the *Melbourne Periodic* and *Private Lives* surveys suggest that, among gay men, rates of crystal methamphetamine use are highest among older men, i.e. those aged 30 to 39 years with an average age of use of 33 years.

Despite increasing rates of crystal methamphetamine use among gay men in Melbourne, most gay men who use the drug do so infrequently and experience few if any problems. Problematic use is confined to the small number of gay men who become dependent users and to a cohort of older gay men who use illicit drugs, including crystal methamphetamine, to facilitate adventurous sex (see Section 6.1.2 below).

Mainstream analyses of the harms associated with the use of crystal methamphetamine have focused on the social, economic and personal costs, including increases in drug-related violence and crime. Little research has been done in Australia on the relationship between heterosexual use of the drug and increased sexual risk-taking and HIV and STI transmission. In contrast, almost all the studies of the harms associated with gay men's use of the drug have focused on gay men's sexual health within the narrow confines of HIV. Apart from a few ethnographic studies, there has been no Australian research that addresses the economic and social (and personal) costs to gay men and to the mainstream community associated with gay men's use of the drug.

6.1.2. Crystal methamphetamine use among gay men

Rates of crystal methamphetamine use among gay men in Australia are comparable to those reported in the US but considerably higher than in the UK. However, rates of use among urban gay men are similar in all three jurisdictions, with estimates of 10 per cent in London, between 8 and 15 per cent in Melbourne, and between 8 and 30 per cent in the US depending on the city and the survey method used.²⁷⁸

²⁷⁸ The greater variation in rates of use among urban gay men in the US reflects a home-grown market for the production of crystal methamphetamine there that varies significantly from state to state, as well as different histories of use within both mainstream and gay communities across the country.

National and international data also show similar patterns of crystal methamphetamine use among urban gay men in Australia, the US and the UK (and Canada), and, more importantly, these patterns reveal similarities in the relationship between gay men's illicit drug use, sexual practices and rising rates of HIV and STIs. Broadly speaking, the epidemiological and behavioural data identify two discrete but overlapping populations of gay men who are regular users of illicit drugs, including crystal methamphetamine.

The first population consists of gay men whose illicit drug use shows a strong association with their experiences of homophobic abuse and discrimination. This group includes:

- MSM and same-sex-attracted young people who are grappling with the social pressures of "coming-out";
- Gay men who are uncomfortable with their sexuality;
- HIV-positive men who experience the added pressures of HIV-related discrimination and dealing with complex treatments and their side effects.

The second population includes gay men who take drugs recreationally on the gay commercial scene. Current data suggest that these recreational users can be divided into two subpopulations: those whose primary motive for using drugs is to increase their sociability; and those whose primary motive is to increase their sexual interest and capacity. However, the boundary between these two subpopulations (and their motives) is fluid.

Increased sociability: This subpopulation of recreational gay male drug users:

- Are young, aged 20 to 29 years;
- Attend dance parties and the club scene;
- Use crystal methamphetamine rarely;
- Prefer to ingest crystal methamphetamine;
- Use crystal methamphetamine as a social lubricant and for its added "staying power"; and
- Use crystal methamphetamine in combination with other "social performance" enhancing drugs.

Enhanced sexual capacity: This subpopulation of recreational gay male drug users:

- Are older, aged 30 to 39 years;
- Are more likely to be HIV-positive;
- Are more likely to use crystal methamphetamine;
- Prefer to inject crystal methamphetamine;
- Use crystal methamphetamine to reduce social and sexual inhibitions and to increase sexual interest and capacity; and
- Use crystal methamphetamine in combination with other sexual performance enhancing drugs and, in particular, Viagra™.

This subpopulation also includes a small but possibly increasing number of gay men who take crystal methamphetamine while looking for potential sexual partners online.

6.2. Current approaches

It is clear from the research that gay men's use of illicit drugs and the relationship between illicit drug use and sexual practices within the gay male community have undergone significant changes over the last ten years. These changes reflect broader social and political processes that include:

- Greater recognition and social visibility of gay men and lesbians;²⁷⁹
- The blurring of the boundary between mainstream and gay commercial cultures and, in particular, youth cultures; and
- Changes to the HIV epidemic, including improved treatments and improvements in the health of HIV-positive gay men.²⁸⁰

These processes have driven the diversification and fragmentation of gay culture, the emergence of new social and sexual subcultures, and new ways of socialising, using drugs and having sex. They signal new patterns of drug use within the gay community, with different subpopulations of gay men using the same drugs in very different ways.

Current approaches to addressing gay men's use of illicit drugs, including crystal methamphetamine, and the harms associated with their use are narrow in focus and assume a fixed notion of gay community and culture. They continue to:

- Define gay men's health through an HIV lens;
- Focus exclusively on the harms associated with gay men's use of drugs and, in particular, the relationship to sexual risk-taking and HIV and STI transmission;²⁸¹
- Fail to recognise the personal, social and sexual pleasures associated with drug use;
- Pathologise not only gay men's use of drugs, but also their sexual practices and gay cultural norms and values;²⁸²
- Focus on individual behaviours in isolation and fail to engage with the broader social determinants of gay men's health; and
- Focus on individual drugs rather than broader cultures of drug use.

6.3. New policy frameworks

There has been a move within the social sciences to rethink the use of drugs by gay men as a shared cultural practice.²⁸³ Rather than only viewing gay men's drug use as a sign of individual pathology or as a vector for HIV transmission, drug use on the gay commercial scene is understood as one of a number of social practices or shared rituals through which homosexually active men can generate a personal and collective gay identity.²⁸⁴ As Green puts it, recreational drug use "facilitates community" and is one way in which gay men form "solid social ties to gay friendship networks and institutions."²⁸⁵ This framework shifts the focus from the individual to the broader social and cultural determinants of gay men's social and sexual practices. It also implies that health policy needs to understand and respond to gay men's use of illicit drugs in the context of gay men's lives as a whole.

²⁷⁹ *Health and sexual diversity* (2003), pp. 3-9 op cit.

²⁸⁰ Victorian Department of Human Services (2007) p. 13 op cit.

²⁸¹ As Duff argues, "contemporary drug policy...tends to privilege the 'problem' of harm whilst eliding the consideration of pleasure". Duff, C. (2004) "Drug use as a 'practice of the self': Is there any place for an 'ethics of moderation' in contemporary drug policy?" *International Journal of Drug Policy* 15: pp. 385-393.

²⁸² As Worth and Rawstone argue, much of the research on gay men's use of drugs assumes that gay men "are sexually compulsive and [drug] addicted". Worth, H. and Rawstone, P. (2005) "Crystallizing the HIV Epidemic: Methamphetamine, Unsafe Sex, and Gay Diseases of the Will". *Archives of Sexual Behaviour* 34:5, p. 483.

²⁸³ Green, I.A. (2003) "'chem friendly': The institutional basis of 'club drug' use in a sample of urban gay men". *Deviant Behavior* 24, pp. 427-447; Reback, C.J. (1997) *The social construction of a gay drug: Methamphetamine use among gay and bisexual males in Los Angeles*. Report funded by the City of Los Angeles (Contract #93427); Slavin, S. (2004) "Crystal methamphetamine use among gay men in Sydney". *Contemporary Drug Problems* 31, pp. 425-465.

²⁸⁴ Slavin, for example, offers an anthropological rethink of contemporary drug-taking practices as, "an expression of tribal affinity relative to spatial context". Slavin argues that drug taking in collective gay social spaces offers gay men "manifold and fluid forms of affinity and sociality". Slavin, S. (2004) "Drugs, Space and Sociality in a Gay Nightclub in Sydney" *Journal of Contemporary Ethnography* 33:3, pp. 284 and 291 respectively.

²⁸⁵ Green, I.A. (2003) pp. 427 and 428 respectively op cit.

Diagram 2 (p. 49) presents the epidemiological and behavioural data on crystal methamphetamine use among gay men in Melbourne within this framework.²⁸⁶ It suggests that gay men's drug use and sexual practices, and the relationship between the two, are structured by social processes within and outside the gay community, including gay cultural norms and homophobia.²⁸⁷ These processes have led to different ways of using crystal methamphetamine among different sub/populations of gay men (see Section 6.1). The framework describes how these different ways of using crystal methamphetamine reflect the different social contexts in which drugs are used and the degree to which they are associated with sexual practices that carry an increased risk of HIV and STI transmission. However, the framework also suggests that there is significant overlap and movement between the different contexts in which different sub/populations of gay men use crystal methamphetamine and the different motivations behind their drug use. For example, a proportion of gay men who first use crystal methamphetamine recreationally on the commercial gay scene may, over time, become dependent, private users as a means of dealing with homophobic abuse and discrimination.

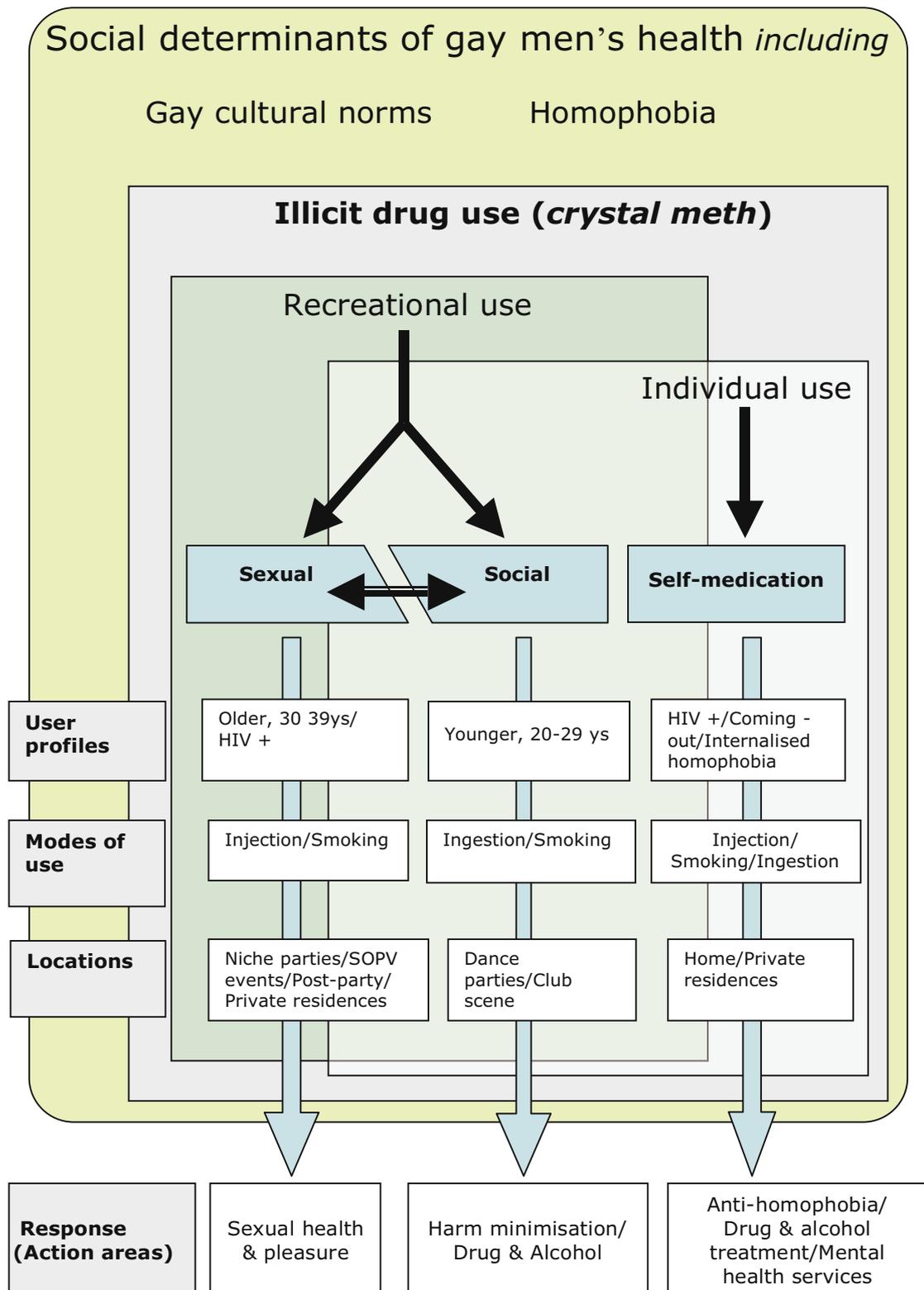
This framework demonstrates that an effective response to gay men's use of crystal methamphetamine and other drugs needs to be developed as part of a comprehensive gay men's health and well-being strategy, and not within the narrow confines of HIV prevention, illicit drug use, or gay men's sexual health. It also suggests that an effective response needs to work across a number of levels, from health policy and service system development, to whole-of-government reforms aimed at reducing discrimination of all types, including homophobia.²⁸⁸

²⁸⁶ This approach is consistent with the recommendations arising from the 2005 annual meeting of the US Center for Disease Control, which include a commitment to research on: the social and sexual contexts of methamphetamine use in populations for whom use is associated with sexual risk behaviours; and the relationship between methamphetamine, sexual risk behaviours and HIV infections in subpopulations of gay men. Mansergh, G., Purcell, D.W. et al. (2006) "CDC consultation on methamphetamine use and sexual risk behaviour for HIV/STD infection: Summary and suggestions". *Public Health Rep* 121, pp. 127-132.

²⁸⁷ This approach is also consistent with Victorian Government policies that include inequality and discrimination as key social determinants of health. See *Health and sexual diversity (2003)* op cit; *A Fairer Victoria: Creating opportunity and addressing disadvantage (2005)* Department of Premier and Cabinet: Melbourne, Victoria, and *Charter of Human Rights and Responsibilities (2006)* Department of Justice: State Government of Victoria.

²⁸⁸ See footnote 279 for details.

Diagram 2 – Addressing gay men’s use of crystal methamphetamine within a social determinants of health and well-being framework



7. A coordinated response

The following suggestions are directed at the development of a coordinated policy and program response aimed at minimising the harms to gay men associated with the use of crystal methamphetamine. The suggestions are consistent with the framework developed in Section 6 and are divided into three areas:

- Gay men's health and well-being policy and program development;
- Treatment and prevention that is sensitive to and reflects the lives of different populations of gay men; and
- Research that will provide a better understanding of contemporary gay culture and a solid evidence base on which to develop effective future gay men's health and well-being policy and programs.

7.1. Policy and programs

7.1.1. Broad policy and program development

This report's findings suggest that an effective policy and program response to gay men's use of crystal methamphetamine should be developed in the broader contexts of gay men's health and well-being promotion and of whole-of-government initiatives aimed at eliminating the discrimination and prejudice that structure many of gay men's problematic health-related behaviours. Such a response should include:

- The development of crystal methamphetamine-related policy and programs as part of a comprehensive approach to gay men's illicit drug use;²⁸⁹
- An understanding both the harms and pleasures associated with gay men's recreational drug use;^{290,291}
- An understanding how gay community attachment works as a protective factor against mental health problems and problematic drug use among gay men;
- An acknowledgement of the social, economic and personal costs to gay men of problematic crystal methamphetamine use and not only the risks of HIV and STI transmission;
- Closer links between drug and alcohol, sexual health and mental health as key issues in the development of gay men's health and well-being policy, programs and services;
- An understanding how gay men's drug use and the harms associated with the use of specific drugs are related to the social contexts in which the drugs are used; and
- A focus on how gay men's drug use, their sexual practices and the relationships between the two are structured by social and political processes within and outside the gay community, including homophobic abuse and discrimination.

²⁸⁹ Currently a separate strategy is developed for each new drug as it appears.

²⁹⁰ In its 2000 study of drug and alcohol use among GLBT communities in Victoria, the Australian Drug Foundation reported that gay culture has developed knowledgeable approaches to drug and alcohol use, or what the report calls "folk pharmacologies". Ireland and colleagues argue that gay men in Sydney have developed sophisticated ways of managing drug use that rely on different forms of social connectedness. See Murnane, A. et al. (2000) op cit. and Ireland, K., Southgate, E. et al. (1999) *Using and "the scene": patterns and contexts of drug use among Sydney gay men*. National Centre in HIV Social Research: University of New South Wales, Sydney.

²⁹¹ The building-up and exchange of knowledge and the development of social supports constitute a responsible approach to drug use—harm-minimisation in action—built on a communal ethic of shared responsibility. Duff uses Foucault's notion of "care of the self" to argue for a new approach to drug policy which "is concerned with limits and moderation in the fostering of a culture of responsible use". Duff, C. (2004) p. 390 op cit.

7.1.2. Targeted policy and programs

The research shows that crystal methamphetamine is used differently by different sub/populations of gay men. They include:

- Older gay men who are part of the adventurous sex/party scene;
- Young gay men on the commercial gay scene; and
- MSM and gay men who use illicit drugs privately as a form of self-medication.

There is a pressing need for the development of targeted health policy, programs and resources that address the different ways of using crystal methamphetamine and the different harms associated with its use for each of these populations. For example, young gay men on the commercial gay scene who take recreational drugs for primarily social reasons may be more responsive to information on crystal methamphetamine and the harms associated with its use that is packaged in a harm minimisation and responsible drug use framework. In contrast, older gay men on the adventurous sex scene may be more responsive to material on crystal methamphetamine that is framed in terms of minimising HIV and STI transmission (see Diagram 2).²⁹²

7.2. Prevention and treatment

The findings of the report suggest the need for mainstream drug and alcohol, sexual health and mental health services to be more sensitive to, aware of and better able to deal with gay men who are experiencing problems related to their use of crystal methamphetamine. This involves service providers having an understanding of what is specific to "gay ways of using drugs" and, in particular, how gay male social and sexual practices are structured by wider socio-political forces.

7.2.1. Resource development and workforce training

There is a need to improve the quality and effectiveness of mainstream treatment services for gay men experiencing problematic crystal methamphetamine use. The research also suggests that there may be a need, in some instances, for the provision of specialist services directed toward gay men. A guarantee of service quality and diversity will increase the likelihood that problematic gay male users or gay men who may be moving towards problematic use will seek professional assistance.

7.2.2. Gay community preventions campaigns

Very few crystal methamphetamine prevention campaigns have been run in the gay community. Those that have been run have relied on scare tactics and failed to engage with the different ways gay men use drugs or with the range of harms associated with problematic crystal methamphetamine use. The research also suggests the need for targeted resource development and professional training that address key "pressure points" including:

- The initiation of young gay men onto the commercial scene, including gay cultures of drug use;
- The transition from recreational to dependent crystal methamphetamine use;
- The transition from mono to polydrug use; and
- The normalisation of illicit drug use in the gay male community.

²⁹² Rawstorne et al. make a similar point about not reducing crystal methamphetamine prevention to matters of HIV and sexual health when they argue "Crystal use and unsafe sexual behavior can, and should, be considered and addressed separately in health promotion and community education". Rawstorne, P. et al. (2007) p. 646 op cit.

7.3. Research

Current approaches to gay men's health policy, including those concerned with gay men's use of drugs, are wedded to a 1980s model of gay community. This is a model of a homogeneous, static community dominated by HIV/AIDS. However, as the research suggests, gay community and identity have undergone dramatic changes over the last 15 years. There has been a diversification of gay social and sexual practices and ways of being gay.²⁹³ Gay male community is no longer centred on HIV/AIDS, but on an increasing range of social, sexual, cultural and political issues and interests. These vary across different segments or subpopulations of Melbourne's gay male community and do so according to differences in age, HIV serostatus, socio-economic status, race/ethnicity, and geographic location. At best a model of gay men's health that fails to acknowledge these changes is unhelpful in tackling emerging health and well-being issues, such as those posed by the arrival of the latest drug. At worst, it may prove dangerous by reinforcing outdated and unusable stereotypes of gay community and identity.

7.3.1. Investigating the contemporary gay social scene

There is a lack of reliable and up-to-date information on how Melbourne's gay male community is changing, and of the different ways of being gay and relating to, and being part of, an increasingly diverse and fragmented gay commercial scene. In particular, there is a need for more accurate and up-to-date information and data on:

- The relationship between gay identity and drug use, sociability, and sex in contemporary gay culture;
- The changing social and sexual contexts in which different populations of gay men in Melbourne use crystal methamphetamine and other drugs;
- The potential harms to gay men associated with the use of crystal methamphetamine and other drugs in these different contexts; and
- Changing attitudes to recreational and problematic drug use in the gay male community.

7.3.2. New and emerging sexual subcultures

International and Melbourne data suggest that the major risk of HIV transmission associated with gay men's use of crystal methamphetamine is among a small but significant subpopulation of older gay men involved in the adventurous sex party scene. This scene is relatively new and little is known about its social and sexual dynamics. There is a need for more epidemiological, behavioural and social data on:

- Who attends these events;
- How serostatus and sexual practices are negotiated (particularly given preliminary data showing an overrepresentation of HIV-positive gay men);
- The role of drug use and, in particular, of injecting drug use, including crystal methamphetamine; and
- How the adventurous sex scene intersects or overlaps with the broader gay commercial scene.

7.3.3. Homophobia, depression and illicit drugs use

There are few Australian or Melbourne data on the relationship between homophobia, mental health problems, and illicit drug use among gay men. Most studies are US-based and the relatively high rates of depression they report may reflect more conservative attitudes towards sexual and gender identity minorities in the US compared with Australia. Researchers in Australia have also been critical of the indicators and depression scales used in many US-based studies of the mental health of gay men and lesbians.²⁹⁴ Finally, little is known about the relationship between depression, crystal methamphetamine use and sexual risk-taking among gay men.

²⁹³ Reynolds, R. (2007) *What Happened to Gay Life?* Sydney: UNSW Press.

²⁹⁴ Personal communication, Dr Garrett Prestage.

Appendix A

Literature review and Factiva search

A search of Factiva shows that between 2000 and 2007 there were approximately 350 separate articles on crystal methamphetamine in the national print media. However, 254 or 74 per cent of these have been published in the last two years (since April 2005). The Victorian figures are similar, with over 60 articles published since 2000, 90 per cent (55 articles) of these appearing in the last two years.

A comparison of biomedical and sociological research publications with popular press reports over the same period is revealing. From 2000 to 2007 there has been a steady stream of biomedical research on the physiological effects and, to a lesser extent, pharmacology of crystal methamphetamine. Using a combination of CINAHL, Ovid Medline and Cambridge Scientific Abstracts (CSA), a total of 88 articles have been published during this period. Of these, 49 articles (56 per cent) were published since 2005. A search of Current Contents, which includes both social science and sociological abstracts, shows that 50 articles on crystal methamphetamine were published between 2000 and 2007, with 35 articles or 70 per cent published in the last two and half years (since January 2005). According to APAFT²⁹⁵, only five articles have appeared on crystal methamphetamine since 2000 (three prior to 2005).^{296, 297} Although there has been a growing interest in crystal methamphetamine in the biomedical and sociological research literature since 2000, it does not match the fevered media interest post 2005.

²⁹⁵ See footnote 22.

²⁹⁶ Bibliographic database that indexes articles from published material on Australian political, economic, legal, social and cultural affairs. Source documents include periodicals, newspapers, scholarly journals, conference papers, and books.

²⁹⁷ If we use "Ice" as the search term, another five articles appear for this period.

Appendix B

Literature Review: Search terms

Search term	Number of articles
Gay men, HIV, risk	0
HIV risk	0
Risk behaviour	21
Dance party	1
Circuit party	5
Recreational drug use	3
Polydrug	4
Treatment	29
Policy	11
Patterns of drug use	3
Patterns	20
Prevalence	17
Effects	23
Education	12
Media	4
TOTAL	97

Appendix C

Melbourne-based data

Results from the *Melbourne Periodic Survey*

The following results use 2006-2007 data. The survey is a cross-sectional survey of 1,988 gay and other homosexually active men living in Victoria, recruited through a range of gay community sites in Melbourne. Unpublished data kindly provided by Dr. Garrett Prestage.

Demographics

The mean age of crystal users in Victoria was 32.7 years compared with 35.3 years for non-users. A third of those using crystal meth were between 30 and 39 years (34.1 per cent), with few gay men over 50 years using the drug. The majority of gay men using crystal meth lived in inner suburban Melbourne (55 per cent compared with 41 per cent of non-users). Few of the gay men surveyed lived outside Melbourne, but the percentage of crystal meth users who did was lower than the percentage of non-users. There was little difference in employment status between users and non-users of crystal meth, although gay men using the drug were less likely to be in professional and managerial occupations (34.8 per cent compared with 45.5 per cent). Gay men using crystal meth were also less likely to have had a university education compared with non-users, 46.2 per cent and 55.1 per cent respectively.

Rates of use of crystal methamphetamine

Only 14.5 per cent of respondents in 2006-2007 reported having used crystal methamphetamine in the 12 months prior to the survey. The majority of these had only used the drug once, with very few reporting having used crystal more than a couple of times during this period.

Other drug use

Almost all crystal meth users reported taking crystal in combination with one or more other drugs, with 70 per cent indicating they used five or more types of drugs.

HIV status

Gay men using crystal methamphetamine were more likely to be HIV-positive than gay men not using the drug, 17.9 per cent and 6.4 per cent respectively. Among men who were not HIV-positive, those using crystal meth were more likely to have had an HIV test in the previous 12 months than those not using the drug, 72.6 per cent compared with 56.1 per cent. Gay men using crystal meth were also more likely than non-users to have been tested for STIs in the 12 months prior to survey, 81.6 per cent and 64.8 per cent respectively, and to have more comprehensive tests. HIV-positive gay male crystal methamphetamine users had similar rates of undetectable viral load as non-users and were at least as likely to be on treatments.²⁹⁸

²⁹⁸ However, the numbers for this group are small and the results may not be reliable. Personal communication, Garrett Prestage.

Relationship status

There was no significant difference in relationship status between gay men using and not using crystal methamphetamine, with 61.5 per cent compared with 59.9 per cent in a regular relationship. However, those using crystal meth were more likely to have an open relationship, 40.3 per cent of users compared with 28.7 per cent of non-users.

Sexual activity

Just over 70 per cent of gay men who had used crystal meth in the past 12 months said they had used drugs to have sex in the past six months (though not necessarily crystal meth). Thirty-nine per cent of gay men who had used crystal methamphetamine reported having had ten or more sexual partners in the 12 months prior to survey. This compared with 23.5 per cent of non-users. Users were more likely to have had casual sex in this period than non-users (78.1 per cent compared with 64.7 per cent). Among those gay men who reported having had casual sex in the past 12 months, those who had used crystal meth were more likely than those who had not to have engaged in UAIC, both insertive and receptive (44.8 per cent compared with 26.1 per cent).

Gay community attachment

Gay men who reported crystal use in the 12 months prior the survey reported having more gay friends than non-users and were also more likely to use gay social venues such as bars, gyms and dance parties. However, they were no more likely to identify as gay.

Results from *Private Lives*

Private Lives is a national online survey of the health and well-being of GLBTI Australians conducted in early 2005. The data reported on here are for Victoria and include all respondents who identified as male and as gay, bisexual, queer or other (822 in total). Of the men who reported having used crystal methamphetamine in the past six months, 99 per cent identified as gay and one per cent as bisexual. This compares with the total sample, in which 91.2 per cent identified as gay and 8.8 per cent identified as bisexual.

Demographics

The majority of crystal meth users among gay men in metropolitan Melbourne were aged between 20 and 50 years (over 95 per cent). However, over three quarters of these were aged between 25 and 44 years, with less than 15 per cent under 25 years. The results suggest that among gay men in Victoria crystal methamphetamine users tend to be older, with less than 35 per cent under 30 years. The rate of use falls to less than 1.2 per cent for gay men aged 16 to 19 years.

Private Lives: A Report on the health and well-being of GLBTI Victorians (2006)

Table 1 – Age breakdown of crystal methamphetamine use among gay men in metropolitan Melbourne

Age range	16-19	20-24	25-29	30-34	35-39	40-44	45-49	50+
Crystal meth use – %	1.2	11.9	20.2	20.2	16.7	16.7	10.7	2.4

There were no reported differences in education levels between the two groups.

Private Lives: A Report on the health and well-being of GLBTI Victorians (2006)

Table 2 – Rates of crystal methamphetamine use among gay men in Victoria

Rates of crystal methamphetamine use	
Number of times used	Percentage n = 822
Never	86.6
1-5	8.0
6-10	1.2
10 plus	1.5

Eighty-eight men (10.7 per cent of respondents) had used crystal methamphetamine in the past six months. The majority of users had used the drug one to five times in that period. The figures were fractionally (but not significantly) higher across all groupings for gay men living in metropolitan Melbourne.

Table 3 - Sexual health and HIV status

Particular STI	Crystal methamphetamine use (% reporting previous diagnosis)	
	Yes	No
HIV	30.7% (27)	4.9% (35)
Hepatitis C	10.2% (9)	1.5% (11)
Hepatitis B	9.1% (8)	4.1% (29)
Gonorrhoea	36.5% (31)	21.3% (127)
Syphilis	7% (6)	1.9% (11)

Gay men living in Victoria, who had used crystal methamphetamine in the previous six months, were more likely than those who had not to report a previous diagnosis of all STIs and both hepatitis B and C.

Gay men who had used crystal meth were more likely to have had an STI check-up in the past year than those who had not used crystal meth (71.6 per cent compared with 55.7 per cent). Gay men who had used crystal meth were also more likely than those who had never used the drug to have had an HIV test (95.4 per cent compared with 79.0 per cent) and more likely to have been tested in the past 12 months (68.7 per cent compared with 62.2 per cent). Of those respondents who had had an HIV test, gay men who had used crystal meth were more likely than those who had not to have engaged in sex that carried a risk of HIV transmission since their last HIV test, 37.8 per cent and 26.7 per cent respectively.

Table 4 - Mental health

Mental health problem/illness	Crystal methamphetamine use	
	Yes	No
Major depressive episode	37.5% (33)	23.3% (166)
Depression	47.7% (42)	28.5% (203)
Anxiety	29.5% (26)	17.1% (122)
Other psychiatric disorder	10.2% (9)	3.8% (27)

Those gay men who had used crystal meth in the past six months were more likely than those who had not to have been told by a medical practitioner that they had one of a number of mental health problems including depression, anxiety disorder, and other psychiatric disorders. At the time of completing the survey, they were also more likely to report "currently feeling depressed".

Service use

Crystal meth users who lived in Melbourne were no more likely to report accessing hospital emergency rooms than those who had never used the drug, even when controlling for age. There were no differences between these two populations in terms of having a regular doctor, although users report that their doctor was more likely to be aware of their sexuality. This may be due to the larger percentage of men who identify as gay among users.

Gay community attachment

Gay men who had used crystal meth in the six months prior to the survey reported higher levels of gay community attachment on a number of indicators than those gay men who had not used the drug. Fifty-three percent of men who had used crystal methamphetamine in the past six months reported that most of their friends were GLBTI compared with 39 per cent of gay men who had not used the drug. Similarly, users report contacting their GLBTI friends more often than do non-users (48.9 per cent of users seeing their GLBTI friends daily, compared with 30.5 per cent of non-users). Users also reported higher levels of feeling attached to GLBTI community than non-users, 37.5 per cent feeling "very" or "mostly attached" compared with 27.3 per cent. However, no differences were found in utilising the GLBTI media between the two groups.

Results from the *Melbourne SOPV Survey*

We report here on unpublished data from *Pivotal, peripheral or positional: Understanding SOPVs for intervention* (2007), a survey of men who attend sex-on-premises venues (SOPVs) to have sex with other men. The survey was conducted early in 2007 with a total of 285 respondents. The average age of crystal meth users among this population was 34.7 years. Of the total sample, 22 (7.7 per cent) had used crystal methamphetamine in the previous six months.

Pivotal, peripheral or positional: Understanding SOPVs for intervention (2007)

Table 1 – HIV status

Have used crystal methamphetamine	HIV status		
	+ ve	- ve	Unknown
Yes	31.8% (7)	63.6% (14)	4.6% (1)
No	8.3% (17)	84.5% (174)	7.3% (15)

Rates of HIV infection among those men who attended SOPVs and used crystal methamphetamine were almost four times that of men who had not used the drug, 31.8 per cent compared with 8.3 per cent. Men who had used crystal were more likely to have had an HIV test and to have been tested for an STI in the past 12 months than men who had not, 90.5 % (19) compared with 54.7 per cent (127) and 27.2 per cent (6) and 7.83 per cent (18) respectively.

Other drugs used

Pivotal, peripheral or positional: Understanding SOPVs for intervention (2007)

Table 2 – Other drugs used

Other drugs used	Crystal methamphetamine use	
	Yes (n=22)	No (n=263)
Alcohol	90.9% (20)	76.8% (202)
Marijuana	77.3% (17)	20.9% (55)
Speed	77.3% (17)	6.1% (16)
Heroin	9.1% (2)	0.4% (1)
Cocaine	31.8% (7)	4.2% (11)
Ecstasy	95.5% (21)	16.7% (44)
LSD/trips	27.3% (6)	0.4% (1)
Amyl	68.2% (15)	24.3% (64)
Steroids	0.0% (0)	0.8% (2)
Viagra	40.9% (9)	9.9% (26)
GHB(GBH/Fantasy)	31.8% (7)	0.4% (1)

Men who attend SOPVs who have used crystal in the past six months are more likely to have used one or more of the drugs listed above, with the exception of steroids.

Table 3 – Other drugs taken in combination with crystal methamphetamine

Other drug/s taken at the same time as crystal meth		
Other drug/s taken	(n=19)	%
Alcohol	3	15.8
Alcohol & Ecstasy	2	10.5
Alcohol, Marijuana & Ecstasy	1	5.3
Amyl	1	5.3
Ecstasy	2	10.5
Ecstasy & GHB	1	5.3
GHB, Ecstasy & Marijuana	1	5.3
LSD	2	10.5
LSD, Ecstasy & GHB	1	5.3
Marijuana	2	10.5
Marijuana, LSD & Ecstasy	1	5.3
Speed	1	5.3

Of the men who attended SOPVs and took crystal methamphetamine in the past six months, the most common drug taken at the same time was alcohol (15.8 per cent), followed in equal measure by marijuana, ecstasy, LSD, and alcohol and ecstasy together (all at 10.5 per cent). However, these percentages are based on small numbers and are *not* statistically significant.

Table 4 - Place where crystal methamphetamine administered

Place where crystal methamphetamine administered		
Location	Number (n=22)	%
Home	14	63.6
Beat	0	0.0
Sauna/sex club	1	4.6
Private sex party	0	0
Bar/club	3	13.6
Dance party	8	36.4

Of those men who had attended an SOPV and used crystal methamphetamine in the past six months, the most common location for administering the drug was at home (63.6 per cent), followed by at a dance party (36.4 per cent). It is important to note that only a tiny proportion of these men took crystal meth *at* an SOPV.

Relationship status and casual partners

Men who attended SOPVs and had used crystal were less likely to be in a regular relationship than those men who had not used the drug, 31.8 per cent (7) versus 51.5 per cent (135).

Pivotal, peripheral or positional: Understanding SOPVs for intervention (2007)

Table 5 – Number of casual partners

Crystal meth use in past 12 months	Number of casual partners				
	None	1	2-5	6-10	11+
Yes (n=22)	13.6% (3)	0.0% (0)	9.1% (2)	13.6% (3)	63.6% (14)
No (n=261)	29.5% (77)	4.6%(12)	24.1% (63)	13.8% (36)	28.0% (73)

Men who attended SOPVs and had used crystal meth in the past six months reported more casual partners than men who had not used the drug, 63.6 per cent with 11 or more casual partners in the last year compared with 28.0 per cent. Only 13.6 per cent of men who had used the drug reported no casual partners in the last 12 months, compared with nearly 30 per cent of men who had not used crystal meth.

Sexual activity

Just over 45 per cent of men who had used crystal meth in the last 12 months reported having used the drug when they last had sex. Of these, 20 per cent reported having sex with one other person while using crystal meth, and 80 per cent reported having sex with between two and ten people.

Use of drug and alcohol-related health services

Only nine per cent of those men who attended SOPVs and had used crystal meth in the past six months had sought assistance for their drug use. An even smaller number (one per cent) had sought assistance for problems related to their crystal methamphetamine use.

Results from *HIV futures five*

HIV futures five: Life as we know it (2006) is a national survey of the experiences of HIV-positive Australians. The sample includes 161 HIV-positive men who were resident in Victoria at the time they completed the survey. Of the total sample, 37 (23 per cent) reported having used crystal methamphetamine in the 12 months prior to the survey, while 124 (77 per cent) reported no use of crystal methamphetamine in the same period. Of those who reported no use of crystal meth over the past 12 months, the average number of years of being HIV-positive was 11.4, while for those who had used crystal over this same period the average number of years of being HIV-positive was 9.2.

Demographic data

The mean age of crystal methamphetamine use among HIV-positive gay men in Melbourne was approximately 40 years (39.6 years). Of those who had used crystal meth in past 12 months, 34 (91.9 per cent) lived in inner-suburban Melbourne, two (5.4 per cent) lived in outer-suburban Melbourne, and one (2.7 per cent) lived in rural Victoria. There were only minor variations in country-of-birth between the two groups, with approximately 85 per cent of both groups born in Australia. Almost 65 per cent of HIV-positive men who had used crystal in the past 12 months were employed, compared with 57.9 per cent of men who had not used the drug. Men who used the drug tended to have higher educational qualifications than those who had not used crystal meth: 8.3 per cent of users compared with 19.5 per cent of non-users had completed year 10 or lower, while 61.0 per cent of non-users compared with 77.8 per cent of users had a trade or university qualification.

Other drug use

HIV futures five: Life as we know it (2006)

Table 1 – Other drug use

Other drugs used	Crystal methamphetamine use	
	Yes (n=37)	No (n=124)
Prescription drugs		
Antidepressants	25% (9)	30.9% (38)
Anxiety medication	27% (10)	23.5% (28)
Non-prescription and/or illicit drugs		
Marijuana	78.4% (29)	44.0%(55)
Speed		
• Injected	40.5% (15)	4.0% (5)
• Not injected	43.2% (16)	8.8% (11)
Ecstasy	70.3% (26)	18.4% (23)
Inhalants (Amyl nitrite)	75.0% (27)	42.9% (54)
Viagra	56.8% (21)	19.2% (24)

Relationship status

There were no significant differences between the two populations in terms of the percentage in a regular relationship or the percentage of those relationships that are seroconcordant and serodiscordant. Just over 40 per cent of gay men (15) who had used crystal in the past 12 months were currently in a regular relationship. Of those, 57.1 per cent had a regular partner who was HIV-positive, while 42.9 per cent had a regular partner who was HIV-negative. In comparison, 45 per cent of those who had not used crystal meth over the same period (56) were in a regular relationship, while 55.4 per cent were in a seroconcordant relationship and 42.9 per cent in a serodiscordant relationship.

HIV futures five: Life as we know it (2006)

Table 2 – Relationship status

Relationship type	Crystal methamphetamine use	
	Yes	No
No sex	5.4% (2)	28.0% (35)
Sex within regular relationship only	11.5% (3)	21.2% (21)
Any casual sex	80.8% (21)	43.4% (43)
In a regular relationship and also having casual sex <ul style="list-style-type: none"> • One regular partner • More than one regular partner 	27.0% (10) 8.1% (3)	20.8% (26) 0.8% (1)
Casual sex only	51.4% (19)	33.6% (42)

The data suggest that HIV-positive men who use crystal meth are more sexually active than HIV-positive men who do not use. This pertains to all the relationship permutations listed above.

HIV-positive men who use crystal are more likely to report sex with casual male partners who are also HIV-positive than are HIV-positive men who do not use the drug. While nearly 68 per cent of crystal meth users report that "all" or "some" of their casual partners are also HIV-positive, the figure falls to 46 per cent for those who have not used the drug in the past 12 months. Those who have used the drug are also less likely to be unsure of the HIV status of their casual partner/s (29.4 per cent of men who use crystal meth reporting "not sure" compared with 49.3 percent of men who do not use the drug).

Condom use

HIV futures five: Life as we know it (2006)

Table 3 – Condom use according to partner status (regular and casual)

Crystal meth use in past 12 months	Condom use with regular partner/s			
	Never	Sometimes	Usually	Always
Yes (n=18)	38.9% (7)	27.8% (5)	5.6% (1)	27.8% (5)
No (n=53)	45.3% (24)	13.2% (7)	11.3% (6)	30.2% (16)
	Condom use with casual partner/s			
Yes (n=32)	3.1% (1)	53.1% (17)	21.9% (7)	21.9% (22)
No (n=58)	8.6% (5)	29.3% (17)	24.1% (14)	37.9% (22)

Table 4 - Condom use in most recent casual encounter according to partners' HIV status

Crystal meth use		HIV status of casual partner		
	Condom use	+ ve	- ve	Don't know
Yes	yes (n=10)	20.0% (2)	10.0% (1)	70.0% (7)
	no (n=29)	24.1% (7)	6.9% (2)	69.0% (20)
No	yes (n=19)	78.9% (15)	5.3% (1)	15.8% (3)
	No (n=26)	46.2% (12)	0.0% (0)	53.8% (14)

General health

There was little difference between HIV-positive men who had used crystal meth and those who had not in self-reported health and well-being. Twenty-five per cent of users reported "poor" to "fair" health and 75 per cent "good" to "excellent", compared with 29.8 per cent and 70 per cent of non-users respectively. Forty-nine per cent (61) of HIV-positive gay men who had not used crystal in the past 12 months reported ever having been diagnosed with a mental health condition, compared with 42 per cent (15) of users.

Rates of co-infection with HCV were higher among HIV-positive men who had used crystal methamphetamine in the past 12 months compared with HIV-positive gay men who had not, 19.5 per cent (7) and 5.8 per cent (7) respectively. A larger percentage of men who had used crystal meth reported having been vaccinated for hepatitis A and B (72.2 per cent and 80.6 per cent respectively) compared with those who had not used the drug (56.7 per cent and 66.7 per cent respectively). These variations in rates of vaccination were reflected in the incidence figures, with meth users having lower rates of hepatitis A and B infection (11.1 per cent and 5.6 per cent respectively) compared with non-users (17.5 per cent and 17.1 per cent respectively).

Again, there was little difference in the percentages of HIV-positive men using crystal meth and those not using the drug in reporting having had an AIDS-defining illness, 18.9 per cent and 19.2 per cent respectively. However, men who had used crystal were less likely than those who had not to report having had an HIV-related illness, 19.4 per cent versus 27.9 per cent respectively. There were slight variations in the use of antiretrovirals (ARV) between the two groups, with men who had not used crystal more likely to be currently taking ARV (72.8 per cent compared with 66.7 per cent), and less likely to have never taken ARV (17.6 per cent compared with 25.0 per cent). There were only minor variations in viral load and CD 4 counts between the two groups.

Gay community attachment

A higher proportion of HIV-positive men who have used crystal meth, compared with those who have not used the drug, reported that gay community was "essential" (22.9 per cent versus 14.5 per cent). However, a similar proportion of both groups (approximately 50 per cent) reported that gay community was "important". A much higher proportion of men who had used crystal meth reported that their sexual identity was "essential", 50.0 per cent of users compared with 26.4 per cent of non-users.

Appendix D

Delphi Scan: Questionnaire

Crystal Methamphetamine use among gay men in Melbourne

Information for participants in the Delphi Scan

1. Background

The Delphi Scan is part of a study looking at Crystal Methamphetamine use among gay men in Melbourne. The study is managed by Associate Professor Anne Mitchell, Professor Gary Dowsett and Liam Leonard of the Australian Research Centre in Sex, Health and Society and is funded by the Victorian Department of Human Services.

The Delphi Scan is an iterative research tool aimed at clarifying areas of consensus and disagreement among a group of experts regarding a critical issue or issues in their shared area of expertise. In this project, the Scan is being used to gauge expert opinion on the scope and scale of crystal methamphetamine use among gay men in Melbourne and the range and quality of health services available to this group.

The Scan is divided into three Stages:

Stage 1 - Distribution of an online questionnaire to suitably qualified experts

Stage 2 - Results of the questionnaire are analysed and fed back to participants. Each participant has the opportunity to compare and reconsider their responses in relation to those of the other experts in the group.

Stage 3 - A final analysis of the results is sent out to participants for confirmation

2. Doing the Delphi Scan

2.1. Stage 1 – Filling out the questionnaire

The questionnaire consists of both qualitative and quantitative questions. The qualitative questions are open-ended and discursive. When answering these questions:

- Remember we are asking for your professional opinion and not simply factual evidence
- Please do not restrict your answers to "Yes", "No" or "Don't know"
- Provide as much information and detail as you think appropriate

You are free to consider the opinions of work colleagues with relevant expertise in answering the questionnaire. However, it is important to the integrity of the Scan that you do not discuss or seek input from other key informants who are part of the expert group.

Please fill out the questionnaire in the Word format provided.

Email your completed questionnaire to Liam Leonard

W.Leonard@latrobe.edu.au

By **Friday 29 June 2007**

2.2 Stage 2 – Responding to the findings of the questionnaire

You will be provided with a preliminary summary of the questionnaire's findings for comment. The summary will include a thematic analysis of the open ended or qualitative questions and a separate presentation of quantitative data. Please feel free to comment on any or all of the preliminary findings and to review and revise your initial responses in light of the opinions of the other experts in the group.

Please email any comments or revisions to the preliminary summary of the questionnaire's findings to: W.Leonard@latrobe.edu.au by Wednesday 13 July 2007

Organisations that have participated in the Delphi Scan will be noted in an Appendix to the final report. However, individuals will not be quoted or named in the body of the report.

If you have any queries regarding filling out the questionnaire or the Delphi Scan please contact Liam Leonard on: (03) 9285 5262 or W.Leonard@latrobe.edu.au

Thank you for participating in the Delphi Scan.

Stage 1 – Questionnaire

Section A – Scale of use

1. How widespread is crystal methamphetamine use among gay men in Victoria?
2. What distinguishes problematic from non-problematic crystal methamphetamine use among gay men?
3. What proportion of gay men who use crystal methamphetamine are problematic users?
4. Over the last 2 years has there been an increase in the number of gay men in Victoria for whom crystal methamphetamine use is a problem?

Section B – Patterns of use

5. Among which age group of gay men is use of crystal methamphetamine in Victoria most prevalent (tick one only)?

a. Under 18 years	
b. 19 to 25 years	
c. 26 to 30 years	
d. 31 to 35 years	
e. 36 to 40 years	
f. 41 to 45 years	
g. Over 45 years	
h. Don't know	

6. What are the two most common methods of crystal methamphetamine administration among gay men in Victoria (1 most common, 2 second most common)?

a. Ingest (swallow)	
b. Snort	
c. Smoke	
d. Inject	
e. Don't know	

7. Where are gay men most likely to use crystal methamphetamine?
8. What role does illicit drug use play in gay male culture in Victoria?
9. Why do gay men use crystal methamphetamine?
10. Do gay men use crystal methamphetamine for different reasons to other illicit drugs (such as marijuana or ecstasy)?

Section C – Prevention, treatment and service delivery

11. Where are gay men most likely to present seeking help for their crystal methamphetamine use (please tick only one service for each of the different reasons for seeking help)?

Service Why seeking help	Hospital Emergency Department	Local GP	Gay and Lesbian GP or Health Service	Drug & Alcohol and/or Mental Health Services	Don't seek professional help	Other (please specify)
Recreational use						
Problematic use						
Low level dependence						
Psychotic episode						
Detox						
Rehab						

12. Are mainstream health services able to provide appropriate and effective advice and/or treatment to gay male crystal methamphetamine users?

13. Are you aware of any crystal methamphetamine prevention initiatives targeting gay men?

14. What do you think needs to be done to reduce the harm associated with crystal methamphetamine use among gay men in Victoria?

Please email your completed questionnaire to:

Liam Leonard W.Leonard@latrobe.edu.au

By Friday 29 June 2007 5.00 pm

Appendix E

Delphi Scan: Expert reference group (Stage 1)

Area of expertise	Organisation	No. of respondents
DHS – Drug & alcohol/mental health	DHS, Drug and Alcohol Policy	1
Drug & alcohol lead agencies	Turning Point	3
	Australian Drug Foundation	1
	VIVAIDS	2
	Odyssey House	1
	Youth Substance Abuse Service	1
Drug & alcohol services	Anex	1
	Turning Point (see above)	
Mental health services	Orygen	1
	Youth service	1
	Adult service	1
Gay & lesbian medical clinics	Carlton Clinic	1
	Prahran Market Clinic	1
	HIV Clinic, Alfred Hospital	1
	Melbourne Sexual Health Centre	2
Researchers	National Centre in HIV Epidemiology and Clinical Research, UNSW	1
	National Centre in HIV Social Research UNSW	1
	ARCSHS, La Trobe University	2
	The University of Melbourne	1
National Drug & Alcohol Research Centres	National Drug and Alcohol Research Centre	1
	National Drug Research Institute Curtin University	1
Accident & emergency services	Alfred Hospital	1
	St Vincent's Hospital	1
	Metropolitan Ambulance Service	1
	Victoria Police	1
Gay & Lesbian community organisations	PLWHA, Vic	1
	VAC/GMHC	1
	ALSO Foundation	1

Appendix F

Delphi Scan: Stage 2 results in full

Crystal Methamphetamine use among gay men in Melbourne

Delphi Scan: Stage 2 - Responding to the findings of the questionnaire

1. How widespread is crystal methamphetamine use among gay men in Victoria?

...men who play hard and dirty, and to whom risk is not something that's likely to stop them from doing something they enjoy.

...low prevalence...high impact.

There was broad agreement that use of crystal methamphetamine among gay men was similar to or only slightly higher than the population as whole. Rates cited by respondents varied between 5 and 20 per cent of the population/ gay men having used crystal methamphetamine in the previous 12 months.

A number of respondents distinguished between prevalence and frequency of use. Frequency of use was seen to be much higher among people on the dance party scene, gay and straight. However, about a quarter of respondents said that frequency of use was greatest amongst a "hard core" group of gay men and was associated with partying and sex.

One respondent noted that use of crystal methamphetamine was higher among HIV-positive than HIV-negative gay men (citing 40 per cent of HIV-positive gay men compared with 15 per cent of gay men in an overall sample). Another noted that anecdotally one in ten men gay men accessing a NPEP (Non-occupational Post Exposure Prophylaxis) service report some form of crystal methamphetamine use (though it is not necessarily the driver for their presenting).

2. What distinguishes problematic from non-problematic crystal methamphetamine use among gay men?

It seems to me that it is problematic if individual gay men believe that they must use drugs, including crystal, in order to function socially within their own gay networks.

...I would define crystal use as problematic when it impacts on the users' ability to maintain their employment, their primary relationship, their friendship networks and their usual social activities and when it requires them to seek professional assistance for the physical or psychological or financial consequences of their crystal use.

There was consensus among respondents that problematic use consisted of serious disruptions to someone's everyday life (from intimate to work relations) and/or negative health-related effects. However, a number of respondents noted that a significant percentage of regular gay male users managed their crystal methamphetamine use with minimum disruption to their lives.

A smaller but important number of respondents also associated problematic use with:

- Normalisation of drug use in gay culture and pressure for gay men, and in particular younger gay men, to take drugs as part of "being gay";
- Increased frequency of use (although one respondent said that all crystal methamphetamine use is problematic, while another that even a single, isolated use of the drug could result in a psychotic episode), the amount taken, and the mode of administration (with two respondents associating injecting with addiction);
- Increased unsafe sex and HIV transmission; and
- Polydrug use (arguing crystal methamphetamine was rarely taken alone but often in combination with other illicit drugs).

Two respondents noted that it was often the friends of users and not users themselves who reported problematic use.

3. What proportion of gay men who use crystal methamphetamine are problematic users?

I suspect the proportion is reasonably small—perhaps 10–20% who are in some way problematic users; however, I also suspect there is a smaller proportion (5 to 10%) where the acuity of the problems is much higher...

All but two respondents agreed that only a very small percentage of gay male users were problematic users. A number of respondents put the figure at 5 to 25 per cent of gay male users (which corresponds to between 1 and 2.5 per cent of gay men). However, a number of participants argued that a higher percentage of friends would categorise use as problematic compared with users themselves. However, one respondent argued that all gay men who use crystal methamphetamine are problematic users, while another cited 60 per cent of all gay male users as problematic.

A number of respondents suggested an association between injecting and problematic crystal methamphetamine use, citing between 5 and 10 per cent of gay male users as injecting users. A similar number noted an association between problematic use among gay men and increased rates of unsafe sexual practices.

There was disagreement over the prevalence and significance of crystal methamphetamine use among gay men presenting at hospital EDs. One respondent put the figure at 30 per cent of all gay men (arguing that crystal methamphetamine use was usually a secondary and not the primary reason for the presentation), while another said that very few if any gay men were presenting with crystal methamphetamine-related problems or psychosis.

4. Over the last 2 years has there been an increase in the number of gay men in Victoria for whom crystal methamphetamine use is a problem?

Not aware of any systematic evidence on this...What is clear is that media reports of individual negative events appear to be driving a research and policy agenda and feeding into scare campaigns.

A majority of respondents had a strong sense that crystal methamphetamine use had increased in the general population over the last two years and argued that, by extension, rates must also have increased among gay men. All noted the paucity of research and hard data on patterns and rates of use among gay men. However, two respondents argued that there was no evidence for an increase in the rate of crystal methamphetamine use among gay men (and in the population as a whole) since 2005. One argued that rates had peaked before 2003 and that current speculation of increasing rates was "media hype"; the other suggested that rates had plateaued since 2005. One respondent suggested that, while there had not been an increase in crystal meth use among gay men generally, there had been a slight increase among gay men aged 18 to 30 years. Another respondent said there had been an increase in injection of crystal methamphetamine among "hard core" gay male users over this period.

Two respondents noted anecdotal reports from workers in the field that the number of gay men presenting with crystal methamphetamine-related problems in EDs has increased over the last two years. Another noted a slight increase in the number of gay men presenting at drug rehabilitation services with crystal methamphetamine-related problems.

5. Among which age group of gay men is use of crystal methamphetamine in Victoria most prevalent (tick one only)?

Thirty-five per cent of respondents identified gay men between 31 and 35 years as the major users of crystal methamphetamine. Fifty per cent of respondents believed that gay men between 31 and 40 years were the major user group (adding the results for 31 to 35 years to 36 to 40 years). Twenty per cent of respondents identified younger gay men between 19 and 25 years as the major age group using crystal methamphetamine.

6. What are the two most common methods of crystal methamphetamine administration among gay men in Victoria (1 most common, 2 second most common)?

Forty-seven per cent of respondents believed that smoking was the most common form of administering crystal methamphetamine among gay men, followed by 26 percent who believed that ingesting was the most common route, snorting (16 per cent) and injecting (11 per cent). Eleven per cent reported "Don't know". Of the 47 per cent who reported smoking as the most common form of administration, 44 per cent listed snorting as the second most common route of administration, 33 per cent listed injecting and 11.5 per cent ingesting (11.5 per cent failed to record a second option).

7. Where are gay men most likely to use crystal methamphetamine?

The most common location for being under the influence of crystal methamphetamine would be nightclubs or dance parties, but I would think that the most common location for consumption of crystal methamphetamine would be in one's own home or the homes of friends prior to heading out to the nightclub or party.

Over 60 per cent of respondents nominated "home" or "a friend's place" as the site where gay men were most likely to take crystal methamphetamine. However, nearly 70 per cent of these respondents said that the drug was taken prior to going to a dance and/or sex party. A small number of these respondents argued that drug taking was timed so that its effects would be felt at after parties (at SOPVs or private houses). Thirty-seven per cent of respondents nominated dance/sex parties and SOPVs as the sites where gay men are most likely to take crystal methamphetamine. A small number of respondents linked method of administration and location, arguing that ingesting was more common in public spaces and inhalation or smoking in private ones.

8. What role does illicit drug use play in gay male culture in Victoria?

Illicit drugs use is normative in gay culture generally...This means that there is great potential for problematic use to be concealed and for the negative consequences to go unrecognised...young gay men are rapidly introduced to drug use and there is an expectation that they will participate in this activity

Nearly 60 per cent of participants said that illicit drug taking had become normalised (and some included "ritualised") in the gay community and was important to individual gay men's sense of community belonging and gay identity. Two of these respondents gave this a critical twist, suggesting that drug use provides a common sense of gay identity by excluding many of those (family, religious groups) who have discriminated against gay men and lesbians.

Nearly 40 per cent argued that drug taking was linked to enhanced experiences, whether these are social (sense of belonging and fitting in), sexual (length and intensity of sexual experiences) or a more generalised sense of "pleasure" and "fun". In these respects, respondents argued that gay men took illicit drugs for "the same reasons as everyone else". A number of respondents were critical of the normalisation of drug use and the emphasis on its pleasurable and social aspects. They argued that this not only pressured gay men into taking drugs (one respondent describing illicit drug taking as "a rite of passage"), but this positive spin made it very difficult for gay men to be open about problematic use and to seek professional help. A number of respondents stressed that while illicit drug taking was an integral part of the *commercial* gay scene (the party/sex scenes) it was "totally irrelevant" to gay men outside this scene.

9. Why do gay men use crystal methamphetamine?

To party and play longer and because it's available and expected.

With so many other substance options I find the use of crystal methamphetamine counter intuitive.

There was consensus that gay men used crystal methamphetamine for two major reasons: "to party and play harder and longer" and "as a social lubricant". A number of respondents made a distinction between these two uses, arguing that a minority of gay men used the drug on the party scene, primarily to assist them in finding sexual partners and enhancing their sexual experiences. For these gay men, the socially disinhibiting effects of crystal methamphetamine (and other illicit drugs) were not an end in themselves but a means to increased, prolonged and heightened sexual activity. Two respondents associated the sexual use of the drug with a specific "adventurous sex" subculture. Two respondents also said that a small percentage of gay men used crystal methamphetamine to enhance weight loss and facilitate longer gym sessions.

10. Do gay men use crystal methamphetamine for different reasons to other illicit drugs (such as marijuana or ecstasy)?

It's a harder core group who use crystal as the effect is longer and stronger.

The difference is always about pharmacology and sometimes about availability.

Over 80 per cent of respondents argued that gay men used different illicit drugs for different reasons because of their specific pharmacological effects. They argued that there was a "knowingness" within the gay male community about the effect of different illicit drugs and which ones to use for which effects. The majority of respondents noted that crystal (unlike marijuana, ecstasy and alcohol) was a stimulant that kept you alert and energetic, made users feel confident and enabled them to "party longer". As one respondent put it, "crystal is well suited to [the] gay lifestyle, especially as it applies to clubbing and the dance scene". A number of respondents noted that these same pharmacological effects also made crystal methamphetamine the drug of choice for gay men on the sex-party scene. To paraphrase one respondent, crystal "doesn't mellow you out" the way ecstasy and marijuana do or "make you incoherent" the way alcohol does. It makes people feel wired, confident and "enables a certain sort of sex", including drawn-out anal sex and fisting sessions. A number of participants also suggested that cost and availability were factors that influenced drug choice among gay men.

11. Where are gay men most likely to present seeking help for their crystal methamphetamine use (please tick only one service for each of the different reasons for seeking help)?

There was considerable agreement regarding the types of services gay men are likely to access for different issues relating to their crystal methamphetamine use. Eighty-four per cent of respondents said that gay men do not seek help for recreational use; 64 per cent believed gay men would seek assistance from a gay and lesbian GP or health service for problematic use; 21 per cent believed they would seek assistance from a drug and alcohol or mental health service; 93 per cent agreed that gay men experiencing a crystal-related psychotic episode would front up at an ED; and 75 per

cent believed that gay men seeking rehabilitation would go to a drug and alcohol or mental health service.

However, there was some disagreement over where gay men with low-level dependence issues would seek assistance, 47 per cent selecting a gay and lesbian GP or health service and 26 per cent selecting "don't seek professional help". There was a similar level of disagreement regarding where gay men would go for detoxification, with 47 per cent selecting drug and alcohol or mental health services and 29 per cent selecting gay and lesbian GPs or health services.

12. Are mainstream health services able to provide appropriate and effective advice and/or treatment to gay male crystal methamphetamine users?

When we try to refer anyone to addiction services, the response is usually "they don't withdraw, we don't provide detox for meth". We can refer for counselling, but there really does appear to be a gap in service for people who use meth.

Gay-related medical practices would have a higher index of suspicion.

There was considerable disagreement among respondents regarding the capacity of mainstream health services to address the needs of gay male crystal methamphetamine users: 50 per cent said "yes" and 50 per cent said "no". Of those who said "no", however, about 30 per cent said that mainstream drug and alcohol services could not deal with issues relating to crystal methamphetamine use regardless of the sexuality (or sex and gender) of the user. As one respondent put it, "they don't have the skills to deal with people who use methamphetamines appropriately, as historically they service heroin users". Or as another said, "Mainstream drug and alcohol services consider their client group to be mainly poor, heterosexual and male".

Among those who said "yes", there were also some qualifications. One respondent said that service providers were skilled, aware of, and able to deal with issues specific to gay male users, but that other clients may be homophobic, thus creating a service or organisational culture that may put gay men off accessing these services. Another said that, regardless of whether health services were gay aware and friendly, gay men could use the argument that mainstream drug and alcohol services are homophobic as an excuse for not facing up to their drug-related problems and/or not seeking help. One respondent suggested that it was "hit or miss" whether any individual drug and alcohol service was aware of and able to meet the needs of gay men seeking assistance for crystal methamphetamine-related problems.

Of those who reported "no", a number said this highlighted both a major gap in mainstream drug and alcohol services and the need for sensitivity and awareness training regarding: gay male culture, sex-positive attitudes to gay male sex, and an understanding of the links between sexual health, including HIV and STI transmission and drug and alcohol use for this client group.

13. Are you aware of any crystal methamphetamine prevention initiatives targeting gay men?

Fifty per cent of respondents were not aware of any crystal methamphetamine prevention initiatives targeting gay men. Of the 50 per cent who were, 50 per cent knew of resources produced by the AIDS Council of NSW, 60 per cent knew of resources produced by the Victorian AIDS Council, including a fact sheet on crystal methamphetamine use and some advertising material, one respondent mentioned Turning Point's online survey on crystal methamphetamine use, and another a 1994 generic drug campaign. One respondent "was not convinced" there was a need for crystal methamphetamine prevention materials targeting the gay male community, while another bemoaned the lack of such targeted resources.

14. What do you think needs to be done to reduce the harm associated with crystal methamphetamine use among gay men in Victoria?

The crystal meth epidemic is a fiction.

We need to challenge the assumptions around drug use in general, and its normalisation within gay life. Crystal is the current problem but there will always be another problematic drug.

Increase gay-aware treatment and rehab services and promote less judgmental public discourse about gay sex, HIV and drugs that enables people to access care when needed.

There were a variety of responses to this question. Twenty-seven per cent said there was a need for service system reforms including:

- Training GPs, drug and alcohol and mental health workers, and allied health professionals in issues relating to gay cultural norms and values, and the relationship between these and drug and alcohol use;
- Promotion of a non-judgmental, if not positive, attitude to gay male sex among health professionals;
- Increased numbers of workers addressing these issues;
- Increased links between sexual health and drug and alcohol workers, including working with HIV-positive crystal users and understanding the links between increased risk of HIV transmission and drug and alcohol use; and
- Increased training, resources and treatment models for crystal users generally.

There was general support for using a harm minimisation approach to tackling crystal methamphetamine-related problems among gay men. This included campaigns targeting the gay community and increased resources for peer education and outreach. However, 18 per cent said there is a need to tackle the normalisation of illicit drug use in gay culture. This involved an open discussion within the gay community of ways of acknowledging the negative effects of drug use, including crystal methamphetamine use, and encouraging gay men to seek help when needed. One respondent advocated for the popularisation of "non-commercial outlets not based on drug and alcohol use".

Three respondents called for the development of a stronger evidence base including:

- More research on patterns of crystal methamphetamine use among gay men;
- Targeted research on high risk groups, including the adventurous and sex/party scenes; and
- The development of a gay-specific Ravesafe resource.

Only one respondent argued that the crystal methamphetamine epidemic is a fiction and hence "not much" needed to be done.