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Rapid assessment of crystal methamphetamine and GHB use in the gay, lesbian, bisexual and transgender community in New South Wales

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RAPID ASSESSMENT OF CRYSTAL METHAMPHETAMINE AND GHB USE IN THE GAY, LESBIAN, BISEXUAL AND TRANSGENDER COMMUNITY IN NSW

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and

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ABBREVIATIONS

ACC	Australian Crime Commission
ACON	AIDS Council of New South Wales
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AIHW	Australian Institute of Health and Welfare
AODTS-NMDS	Alcohol & Other Drug Treatment Services National Minimum Data Set
ATSI	Aboriginal and or Torres Strait Islander
BBVI	Blood Borne Viral Infections
CMA	Crystal Meth Anonymous
FDS	Family Drug Support
GBL	Gamma-butyrolactone
GHB	Gamma-hydroxybutyrate
GLBT	gay, lesbian, bisexual and transgender
GP	General Practitioner
HAART	highly active antiretroviral therapy
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
IDRS	Illicit Drug Reporting System
IDU(s)	injecting drug user(s)
KE(s)	Key experts(s)
LSD	*d*-lysergic acid
MDA	3,4 - methylendioxyamphetamine
MDMA	3,4 - methylendioxymethamphetamine
N	(or n) Number of participants
NA	Narcotics Anonymous
NCHECR	National Centre in HIV Epidemiology and Clinical Research
NCHSR	National Centre in HIV Social Research
NDARC	National Drug and Alcohol Research Centre
NDSHS	National Drug Strategy Household Survey
NDLERF	National Drug Law Enforcement Research Fund
NSP	Needle and syringe program
NSW	New South Wales
NT	Northern Territory
PDI	Party Drugs Initiative
REU(s)	Regular ecstasy users(s)
STI	sexually transmitted infection
UAIC	unprotected anal intercourse
1,4 B	1,4 butanediol

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1. INTRODUCTION

In recent years there has been an increase in concern about the extent of use and harms related to the use of crystal methamphetamine and GHB in the gay, lesbian, bisexual and transgender (GLBT) community in NSW. Anecdotal reports of an increase in the use of these drugs has been mirrored by reports of harms related to the use of these drugs that has included concerns about GHB overdose, reports of increased sexual risk behaviours among persons using crystal methamphetamine, and concerns about increases in problematic use of crystal methamphetamine.

The current report is the result of a rapid assessment conducted jointly by the AIDS Council of New South Wales (ACON) and the National Drug and Alcohol Research Centre (NDARC) that aimed to do the following:

1. Review the existing literature on the effects of GHB and crystal methamphetamine and harms related to their use, with a particular focus upon evidence from GLBT populations;
2. Summarise existing data on the extent of use of these drugs in the GLBT community in NSW;
3. Conduct interviews with key experts working within the GLBT community, who had knowledge about trends in use and harms related to the use of these drugs, as well as obtain information from the GLBT community itself;
4. Summarise existing programmes designed to address the harms related to the use of these drugs; and
5. Consider the implications of this exercise for future research, public health interventions, and programme development.

1.1. GHB

Gamma-hydroxybutyrate (GHB) is a fatty acid that occurs naturally in the human body (Nicholson and Balster, 2001; Bessman and Fishbein, 1963). It has some similarities to the neurotransmitter GABA, whose specific mechanisms of action are unclear; GHB appears to be a metabolite of GABA (Colombo et al., 1998; Metcalf et al., 2001). GHB is a central nervous system (CNS) depressant, with some similarities to other CNS depressants such as benzodiazepines and alcohol (Galloway et al., 1997; Kam and Yoong, 1998). There is evidence to suggest that GHB *enhances* the CNS depressant effects of both alcohol and other sedative/hypnotic drugs, and may enhance the effects of opioids (Colombo and Gessa, 2000; Nicholson and Balster, 2001).

GHB was first synthesised in 1960 (Nicholson and Balster; 2001). GHB has been researched and used for a number of clinical uses: as a sleep aid for persons with sleep disorders, in particular narcolepsy (Mamelak, 1989; Mack, 1993; Chin et al., 1992; Scharf et al., 1985), as an anaesthetic (Nicholson and Balster, 2001; Kam and Yoong, 1998), and as a treatment for alcohol dependence and opioid withdrawal (Gallimberti et al., 1993; Colombo and Gessa, 2000; Maremmani et al., 2001; Kam and Yoong, 1998; Nicholson and Balster, 2001). Recent research found that GHB was equally effective to naltrexone (another validated pharmacological treatment for alcohol dependence) in reducing cravings for alcohol, and *better* than naltrexone in improving short term abstinence from alcohol (Caputo et al., 2003).

When ingested, GHB is rapidly absorbed in the body, and effects generally begin between 15-30 minutes, with the peak of effects occurring between 25-45 minutes following ingestion (Bernasconi et al., 1999). The effects of GHB appear to be highly dose-dependent (Galloway et al., 1997), with small increases in the amount taken leading to a dramatic increase in effect.

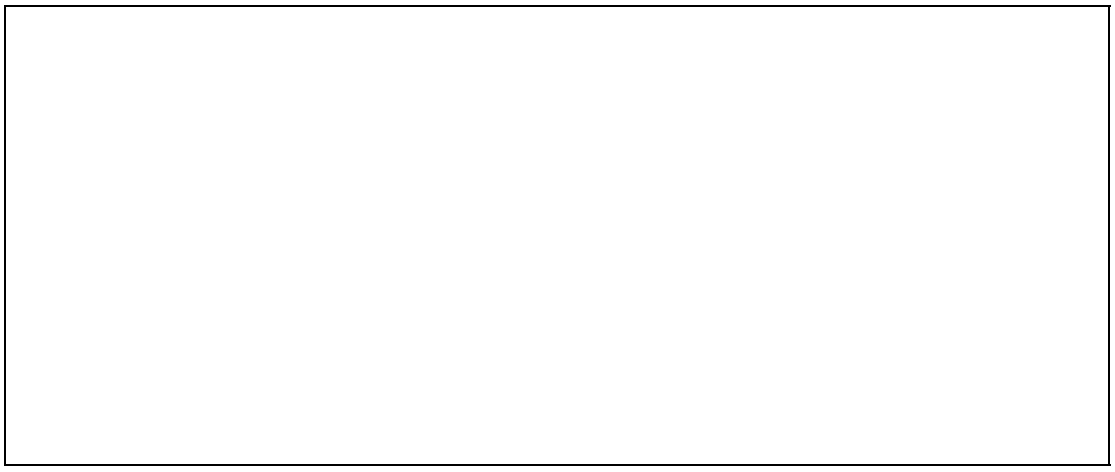
1.1.1. Changes in availability of GHB

Increasing restrictions on the use of GHB in many countries around the world has reduced the licit supply of GHB (Nicholson and Balster, 2001). In recent years, the ability of recreational users to obtain GHB over the internet has been quite markedly

restricted. Probably as a consequence of these restrictions, there have been increasing reports of the use of 1,4-butanediol (1,4-B) or gamma-butyrolactone (GBL) (Ingels et al., 2000). These are similar chemicals to GHB that also occur naturally in the body (Nicholson and Balster, 2001), which are metabolised into GHB in the body. They may be used as substitutes for GHB, but are known to be pharmacologically different. The effects of doses of GBL may also be greater than equivalent doses of GHB, which could lead to problems surrounding dose titration (Nicholson and Balster, 2001).

No data are available on GHB seizures by NSW Police, but data on seizures of GHB and GBL at the Australian border are shown in Figure 1. As can be seen, the greatest number of detections to date was in 2001-2002; more recent years have seen a smaller number of detections. Given that GHB may be produced from locally obtained GBL, however, this recent trend might reflect a shift by GHB suppliers towards local sources of GHB precursors.

Figure 1: Number of GHB and GBL seizures at the border by the Australian Customs Service, financial years 1996/97 to 2003/04



Source: Australian Customs Service 2004 (taken from Stafford et al., 2005a).

1.1.2. Epidemiology of use

During the 1980s, GHB was widely available in the US, particularly in health food shops, where it was used by body-builders for weight control (Michael and Hall, 1994). The marketing claimed that GHB promoted weight loss and muscular development. It has been suggested that this claim stems from the fact that GHB acutely facilitates slow-wave sleep, during which growth hormone release takes place (Galloway et al., 1997).

There has been documentation of the use of GHB as a recreational drug in a range of countries around the world. In large part, such use was noticed because persons came to the attention of emergency departments following unconsciousness. In the US, reports of acute poisonings due to GHB were reported in 1990 in areas such as San Francisco and California (United States Department of Health and Human Services, 1990). Reports of GHB use and poisonings have been further documented in the US (United States Department of Health and Human Services, 1997, Australian Bureau of Criminal Intelligence, 2000; Whitten, 2001), the United Kingdom (Thomas et al., 1997), Canada (Weir, 2000), and Spain (Miro et al., 2002).

In its illicit form, GHB is also known by a wide variety of names such as "GBH", "grievous bodily harm", "cherry meth", "Georgia Home Boy", "fantasy", "liquid ecstasy", "soap", "scoop", "Liquid E" and "Liquid X". In some instances, these names may lead users to believe they are not taking GHB (particularly in the case of terms such as liquid ecstasy).

GHB is not a widely used drug in Australia. In the most recent household survey of drug use (2004), there were around 1% of those aged 14 years and over reporting lifetime use, and 0.5% reporting use within the past year (Australian Institute of Health and Welfare, 2005).

Two studies have focused upon recreational GHB users. A study of 42 recreational GHB users in Los Angeles, California, found that users were mostly white males in their mid-twenties (Miotto et al., 2001a). Users reported using GHB to increase feelings of euphoria, sexuality and relaxation.

In the Australian study, conducted in Sydney and funded by ACON, the sample of 76 recreational GHB users recruited appeared to be a well-functioning and educated group who had only recent involvement with GHB use (Degenhardt et al., 2002). They reported using GHB for similar reasons to the American sample: to relax, for the euphoric effects and because it increased feelings of sexuality.

Many GHB users had only recently begun using GHB (within the past year or two), and many had not used it extensively (the median number of times ever used was 15)

(Degenhardt et al., 2002). The short length of use probably reflected the length of time GHB is thought to have been used as a recreational drug in Australia (Australian Bureau of Criminal Intelligence, 2000). It is also consistent with evidence from countries such as the US and the UK that the use of GHB for recreational purposes is a recent phenomenon (Nicholson and Balster, 2001). The GHB users in this study had extensive experience with a range of other drugs, and, particularly, extensive recent use (use in the past 6 months) of a wide range of amphetamine substances and other drugs typically used by ecstasy and related drug (ERD) users (Topp et al., 1999).

The typical context of GHB use was with a wide range of other drugs: only 5% reported that they typically used GHB alone. Of particular note was the fact that three in ten GHB users reported *typically* drinking more than five standard drinks of alcohol when they used GHB, and two in ten reported typically using ketamine when they used GHB. Given the depressant effects of alcohol and dissociative effects of ketamine, their use with GHB may be placing users at increased risks of adverse effects, particularly if they become unconscious, and they may place users at greater risk of accident or injury.

In the American study, the patterns of use were much heavier: almost half reported that they used GHB on 2 or more days *per week* (Miotto et al., 2001a). They were most likely to use it two or more times on a use occasion, and take 1-3 capfuls.

1.1.3. Acute negative side effects

The side effects of GHB have been documented both in clinical research, and in a small number of studies of recreational users. Clinical research and case studies have reported that adverse effects of GHB include dizziness, nausea, weakness, confusion and agitation, drowsiness, and coma (Chin et al., 1992; Nicholson and Balster, 2001; Galloway et al., 1997; Dyer, 1991). Clinical studies and early use of GHB as an anaesthetic indicated it may also induce seizure-like activity (Dyer, 1991), although there has not yet been direct substantiation of this possibility using EEG assessment. Adverse effects have been reported at doses from between 2g-30g of GHB powder (Chin et al., 1992).

In the American study of GHB users, over half of the sample reported increased sweating and loss of consciousness; between one quarter and one half reported nausea,

hallucinations, headaches and vomiting. A minority reported experiencing a seizure when using GHB (Miotto et al., 2001a).

In the Australian study of GHB users, what was notable was that, despite the relative recency with which these recreational users had begun using GHB, and the fact that most users had had a limited experience with the drug, reports of side effects were frequent among this group: the average number reported was 6.5 (out of a possible total of 14), and 99% reported at least one side effect (Degenhardt et al., 2002). These side effects included vomiting, profuse sweating, dizziness, confusion, and "seizures". While many users felt that these effects were caused by their GHB use, the polydrug using patterns of this group means that it is difficult to be sure which drugs (or combination of drugs) is responsible for such effects. However, it should be noted that these side effects are consistent with the sorts of negative effects that have been observed in clinical studies of GHB use (Nicholson and Balster, 2001). These findings suggest that, even among recent and infrequent recreational users, significant adverse effects of GHB are experienced, which may place users at risk of harm.

1.1.4. Overdose

Much of the research on GHB overdose has come in the form of case reports of poisoning, overdose or death. Many of these have been discussions of a small number of cases where persons were suspected of having experienced an overdose of GHB (Ingels et al., 2000; Muller, 2003; Sanguineti et al., 1997; Karch et al., 2001; Li et al., 1998b; Galloway et al., 1997); in one case there was documentation of a "mass" GHB intoxication where 31 participants from a Californian rave party on New Year's Eve 1996 were hospitalised (Eckstein et al., 1999). Two studies have involved an analysis of all cases admitted to emergency departments: these were located in Barcelona, Spain (Miro et al., 2002), and San Francisco, US (Chin et al., 1998).

In the Spanish study of admissions to emergency departments, the researchers found that a "typical" case of GHB overdose was male, in their mid-twenties, presenting on the weekends, most often having also used alcohol (73%) and illicit drugs (85%), and presenting as unconscious (Miro et al., 2002). There were no deaths among these cases and complete recovery was made in every case.

In the study of cases in San Francisco, the findings were similar: most cases were male, with a mean age of 28 years (Chin et al., 1998). The rates of other drugs were somewhat lower, with 39% of cases involving alcohol and 28% involving other illicit drugs. Lowered body temperature, bradycardia and unconsciousness were common features of the cases.

In addition to documenting that GHB overdoses have occurred, what is also of interest is *trends* in the number of overdoses related to GHB. The US Drug Abuse Warning Network (DAWN) data system showed increases in the number of GHB mentions in accident and emergency departments from 20 in 1992 to almost 5,000 in 2000 (US Drug Enforcement Agency, 2001; Whitten, 2001); numbers appear to have stabilised or decreased since that time. There have also been reports of overdose deaths related to GHB use in the US (Ferrara et al., 1995), most of which have also involved other drugs (Ferrara et al., 1995; Marwick, 1997), although there has been one published case attributed exclusively to GHB use (Centers for Disease Control, 1997). In the Spanish study, there was a significant increase in the proportion of overdose cases involving GHB between 1989 and 2000-2001 (Miro et al., 2002). Given this evidence and the increased attention devoted to GHB in recent years, it would appear that overdoses related to GHB have been increasing in a number of countries.

There has been little research conducted on the risk of overdosing on GHB among recreational users. In the American study of GHB users, over half reported losing consciousness, while 15-30% reported "overdosing" after using GHB (Miotto et al., 2001a). In the Australian study, half (53%) of the sample of GHB users had overdosed at some time (overdosing was defined as losing consciousness, and being unable to be woken) (Degenhardt et al., 2003). Of those who had used GHB more than 15 times, 75% had overdosed at least once. A third (33%) of those who had overdosed had done so more than 3 times; one person had reportedly overdosed 100 times. Two thirds (63%) had seen another person overdose after using GHB (Degenhardt et al., 2003).

There was little to discriminate between those who had and had not overdosed on GHB (Degenhardt et al., 2003). There were no differences between the two groups in the rates of lifetime drug use, the extent of other drug use in the past 6 months, or in terms of "typical" patterns of other drug use when using GHB. There *did* appear to be significant

differences between those who had and had not overdosed in terms of their experience with GHB use (length of use, number of times used, frequency of use), and many of those who reported overdosing said that it was on a "special occasion" such as New Year's Eve, a birthday, or a major dance party event (Degenhardt et al., 2003). Almost all (93%) said that others had been present when the overdose had occurred. The most common places in which the overdose had occurred were: at someone's house (40%); in a nightclub (25%); at a major dance party (20%); or in a public place (10%). The most commonly self-reported reasons for users' overdose, and their perceived reasons for GHB overdoses in general, related to GHB's strength, dosing frequency, and amount used. This is consistent with what is known about the dose-response curve of GHB, in which small increases in the amount of GHB used can cause a huge difference in the effects upon the user (Nicholson and Balster, 2001).

Some of these users did not see overdose as a negative thing, with many reporting that they had obtained information on this via the internet and that they felt GHB overdose was not in itself a dangerous thing (Degenhardt et al., 2003). These risk perceptions need to be considered in any intervention aimed at minimising the harms associated with GHB, with efforts aimed at educating users of the risks that may occur after becoming unconscious (e.g. falls, injuries, and the risk of choking, particularly if vomiting also occurs).

A study of men attending "circuit parties" in the US found that one quarter (25%) of the sample reported that they had had a "drug overuse" incident in the past year at a circuit party (this was defined as having passed out, requiring medical assistance or not being able to take care of themselves) (Mansergh et al., 2001b). Of these men, 53% said that the drug(s) most often involved was GHB, with 45% reporting ketamine and GHB, and 34% reporting ecstasy. Rates of use of GHB were *higher* in the overdose situation compared to rates of use on the previous circuit party weekend (which was 25%), while the rates of use of the other drugs nominated in the overdose incident were *lower* for the other drugs mentioned compared to the previous weekend (ketamine use was 58%, alcohol 58%, and ecstasy 75%) (Mansergh et al., 2001b).

It has been argued that one of the most dangerous aspects of recreational GHB use is the difficulty in determining the strength and correct dose of GHB (Chin et al., 1992;

Galloway et al., 1997). It may be that this plays a part in the occurrence of GHB-related overdose. This possibility is consistent with the findings of the Australian study suggesting that GHB use itself was the only distinguishing risk factor for overdose, and little else (Degenhardt et al., 2003). It is also consistent with the above US circuit party study, where higher rates of GHB use and *lower* rates of other drug use appeared to distinguish overdose incidents from other circuit parties where no such incident was experienced (Mansergh et al., 2001b).

1.1.5. Dependence

Dependence involves a cluster of symptoms that include impaired control over drug use, as indicated by continuing to use in the face of recurrent problems that the user knows (or believes) to be caused by their use (American Psychiatric Association, 1994). These problems include legal difficulties, imprisonment, interpersonal and family problems, and serious health problems.

There is evidence that tolerance to and physical dependence upon GHB may develop (Addolorato et al., 2001; McDonough et al., 2004a; McDaniel and Miotto, 2001; Tarabar and Nelson, 2004). This has been acknowledged by the World Health Organization, which advocated that GHB be a controlled substance partly on this basis (World Health Organization, 2001).

There have been published case reports of GHB dependence among chronic heavy users (Price, 2000; Miotto et al., 2001b; McDaniel and Miotto, 2001; Craig et al., 2000; Galloway et al., 1997; Friedman et al., 1996). These have typically followed sustained periods of heavy, regular use of GHB. In the study by Degenhardt and colleagues in 2001, approximately 4% of participants were classified as "dependent" upon GHB (Degenhardt et al., 2002). The American study of GHB users, which comprised a more long-term and heavier using sample, found that 21% of the sample reported having felt as though they were "dependent" upon GHB at some time (Miotto et al., 2001a).

GHB withdrawal occurs following periods of sustained and regular GHB use (Addolorato et al., 2001; McDonough et al., 2004a; McDaniel and Miotto, 2001; Tarabar and Nelson, 2004; Galloway et al., 1997; Schneir et al., 2001; Catalano et al., 2001; Dyer et al., 2001; Bowles et al., 2001; McDonough et al., 2004b). The symptoms reported

during withdrawal included: muscular cramping, tremor and anxiety, insomnia, irritability, paranoia, auditory and visual hallucinations, mild tachycardia, hypertension, nausea and vomiting. Withdrawal symptoms typically begin within hours of cessation of use, and severe symptoms proceed if there is no admission for medical detoxification. Withdrawal is potentially life threatening.

1.1.6. The use of GHB in suspected cases of sexual assault

The use of GHB in cases of sexual assault has received some media attention in recent times. The incidence of "drink spiking", "date rape" or "drug rape" cases where GHB may be involved *may* have increased over recent years; however, there are issues surrounding the identification and demonstration of GHB in such cases. These include the fact that GHB can be detected in the body regardless of whether any has been ingested; the short half life of GHB in the body; the need for targeted testing to occur; and the low likelihood that specimens taken would be done within the time frame required to detect GHB.

The drugs most commonly used in drug-facilitated sexual assault are alcohol, benzodiazepines, and cannabis (Slaughter, 2000). A recent study examined all toxicological data related to alleged drug-facilitated sexual assault in the United Kingdom over a three-year period (a total of over 1000 cases) (Scott-Ham and Burton, 2005). Alcohol was detected in almost half (47%) of cases, cannabis in 26% of cases, and cocaine in 11% of cases. In only 2% of cases (n = 21) was a sedative or disinhibiting drug detected, where use of the drug had not been admitted (and the incident could therefore be taken as deliberate spiking) (Scott-Ham and Burton, 2005). GHB was detected in only two of these cases. In other words, of alleged drug-facilitated sexual assault cases in the United Kingdom, only 0.2% comprised cases where GHB was somehow involved in deliberate spiking (Scott-Ham and Burton, 2005).

1.2. Crystal methamphetamine

"Amphetamine" typically refers to amphetamine sulfate, which was the form of illicit amphetamine most available in Australia in the 1980s (Chesher, 1993b). As a result of the legislative controls introduced in the early 1990s on the distribution of the main precursor chemicals (Wardlaw, 1993), the proportion of amphetamine-type substance seizures that were *meth*amphetamine steadily increased, until methamphetamine dominated the market such that in the year 2000/01 the vast majority (91%) of all seizures of amphetamine were methamphetamine (Australian Bureau of Criminal Intelligence, 2002).

Chemically, amphetamine and methamphetamine are closely related. Both exert their effects indirectly by stimulating the release of peripheral and central monoamines (principally dopamine, noradrenaline, adrenaline and serotonin) (Seiden et al., 1993), and both have psychomotor, cardiovascular, anorexogenic and hyperthermic properties. Methamphetamine has proportionally greater central stimulatory effects than peripheral circulatory actions compared to amphetamine (Chesher, 1993a), and is a more potent form with stronger subjective effects.

In an increasing number of countries worldwide, methamphetamine has been the form of amphetamine most available in recent years. Concern has increased during this time as use has spread, and associated problems have become more clearly delineated (Methamphetamine Interagency Task Force, 2000; Shaw, 1999, United Nations Office of Drug Control Policy, 2000; Farrell et al., 2002; United Nations Office on Drugs and Crime, 2004).

Australian drug early warning systems such as the Illicit Drug Reporting System (IDRS) and the Party Drugs Initiative (PDI) make a distinction between methamphetamine powder ('speed'), methamphetamine base ('base') and crystalline methamphetamine ('crystal meth') (Stafford et al., 2005a; Stafford et al., 2005b). Speed is typically manufactured in Australia and ranges in colour from white to yellow, orange, brown or pink, due to differences in the chemicals used to produce it. It is usually of relatively low purity. Base (also called paste, wax, point or pure), is thought to be an oily or gluggy, damp, sticky, powder that often has a brownish tinge. Base is also most likely

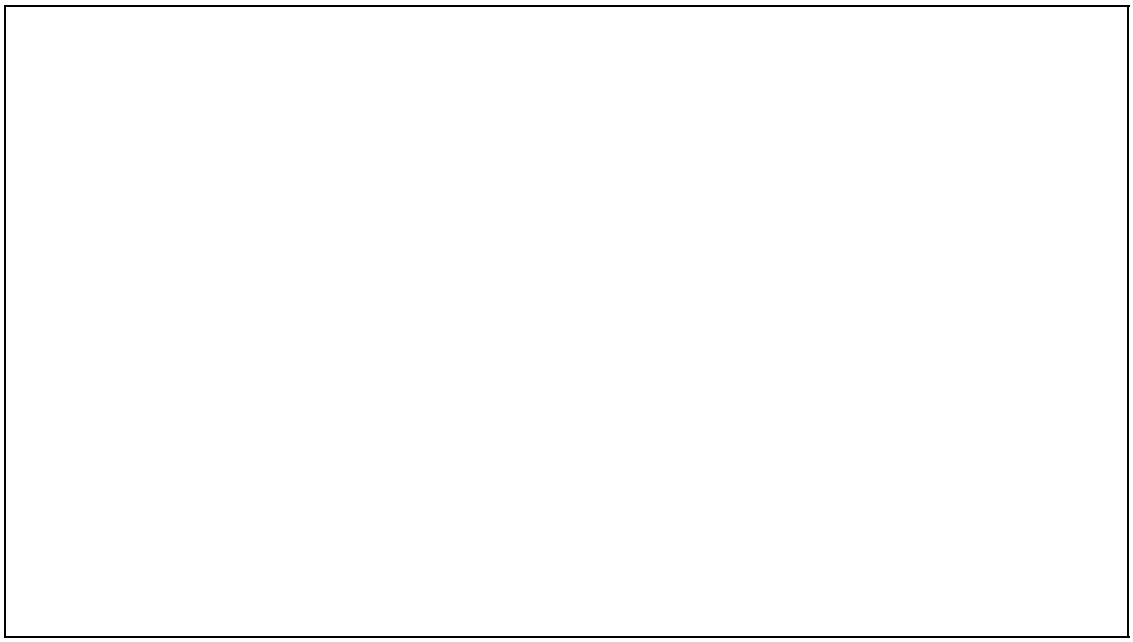
manufactured in Australia. Crystal meth (also called shabu, crystal or ice) is a crystal or coarse powder that ranges from translucent to white. Crystal meth is thought to be largely manufactured in Asia and imported, although domestic manufacture has probably increased (McKetin et al., in press; Topp and Churchill, 2002).

1.2.1. Changes in availability of crystal methamphetamine

Drug monitoring systems in Australia have all documented an increase in the use of crystal meth among regular drug users, be they injecting drug users or regular ecstasy users (Stafford et al., 2005b; Stafford et al., 2005a). This is no doubt driven by the increasing availability of the drug (Figure 2) as well as increased domestic production.

Although there was a decrease in seizures at the border in 2003-2004 (Figure 2), an increase has been observed in the border seizure of precursor chemicals for the production of methamphetamine (Stafford et al., 2005b; McKetin et al., in press), suggesting that there has been an increase in domestic manufacture of the drug. Consistent with this has been a sizeable increase in the number of clandestine methamphetamine laboratories detected across the country over recent years (Stafford et al., 2005b).

Figure 2: Total weight and number of crystalline methamphetamine seizures detected by the Australian Customs Service at the Australian border, 1996-2004



Source: Australian Customs Service 2004

In 2003/04, there were 53 methamphetamine seizures (all forms of methamphetamine) analysed by the Australian Federal Police from seizures made in NSW, with a median purity of 43.1%. The purity of crystalline methamphetamine is typically higher than other forms of methamphetamine, with some estimates that average purity may be 80% compared to 20% for base methamphetamine (McKetin et al., in press; Stafford et al., 2005b).

A recent study of the methamphetamine market in NSW suggested that methamphetamine users were well able to distinguish crystal meth from other forms of methamphetamine, particularly base methamphetamine (McKetin et al., in press); this finding is consistent with previous research with injecting drug users (Breen et al., 2003a; Breen et al., 2004). This suggests that persons who intend to use crystal meth are probably able to correctly identify this form of the drug when they purchase (and use) it (as opposed to other less potent forms).

1.2.2. Epidemiology of use

Just under one in ten Australians have ever tried methamphetamine (Australian Institute of Health and Welfare, 2005). Although most persons who report methamphetamine use do so irregularly, a small proportion engage in regular or dependent use. Recent work by McKetin and colleagues suggested that around 75,000 Australians were daily users of the drug (McKetin et al., 2005).

Research has typically found that rates of drug use are higher among homosexually active men and women than their heterosexual counterparts in the general community (Burgard et al., 2005; Cochran et al., 2004; Ryan et al., 2001; Gilman et al., 2001; Hillier et al., 2003). Prevalence studies among homosexually active men in the United States have typically estimated that between 5% to 25% have used crystal meth (Halkitis et al., 2001).

Rates of drug use in the GLBT community depend upon the group being studied. There is strong evidence to suggest that use is concentrated among some sub-populations of the gay community, in particular those who are "gay-community attached" and involved in the dance scene. Homosexually active men who live in urban areas and who attend gay bars and dance parties have high rates of illicit drug use (Lee et al., 2003; Mansergh et al.,

2001a; Thiede et al., 2003). Crystal meth is no exception: its use is more common among men who attend bars, nightclubs, dance parties and saunas than among men who do not attend these events (Halkitis et al., 2001).

Much less work has been conducted with lesbian or bisexual women. Convenience samples of lesbian/bisexual women recruited from similar venues have also found high rates of drug use (Richters et al., 2002), and of heavy drug and alcohol use (Parks, 1999).

1.2.3. Desired effects

Users typically report that the general arousal and energy inducing effects are among the best things about the drug (Dean, 2004; Degenhardt and Topp, 2003). Effects on sexual arousal and feelings of sociability are also commonly reported as positives of the drug. This is consistent with other research on methamphetamine use, with hypersexuality, increased self-confidence and lowered inhibitions being commonly mentioned positives (Halkitis et al., 2001; Lewis and Ross, 1995). Effects upon the experience of sexual pleasure have been argued to account for its relationship to impulsive sexual behaviour (Halkitis et al., 2001). It is important to note that many users report using crystal meth *because* it has these effects upon sexual arousal and inhibitions. This research has also largely been concentrated upon men; effects upon women may differ.

1.2.4. Acute negative side effects

In a study of crystal meth users, the most frequently reported worst thing about crystal meth reported by users was the 'comedown', or aversive recovery period following use (Degenhardt and Topp, 2003). Around one quarter of the sample identified paranoia and the inability to sleep following use as the worst things about the drug, and one in 10 nominated its addictive properties and its ability to induce aggression. Approximately two-thirds of the sample reported anxiety, paranoia, depression and/or irritability related to crystal meth. Almost all those who reported physical and psychological side effects considered that they were related solely to their use of crystal meth (Degenhardt and Topp, 2003).

Amphetamines have a number of adverse side effects related to the sympathomimetic nature of their action that include sweating, heart palpitations, headaches, tremors, and increases in body temperature (Degenhardt and Topp; 2003, Dean, 2004). Adverse

psychological side effects include restlessness, changes in libido, anxiety, dizziness, irritation, confusion and aggression (Degenhardt and Topp, 2003; Dean, 2004). Delusions, paranoia, panic and loss of behavioural control can also occur (Degenhardt and Topp, 2003; Dean, 2004; Iwanami et al., 1994). Cardiovascular toxicity may also occur, and includes arrhythmias, acute myocardial infarction, cardiomyopathy (Yu et al., 2003; Dean, 2004). Cerebrovascular toxicity can occur and includes stroke, aneurysm, and cerebral haemorrhage (Lee, 2004; Dean, 2004).

Intoxication with methamphetamine has been associated with criminal violence and aggressive behaviour. There has been some debate about the nature of the link between methamphetamine use and aggressive behaviour. It is most likely that there is a complex relationship between methamphetamine use and violence, which is influenced by individual, situational and cultural factors (Boles and Miotto, 2003; Hoaken and Stewart, 2003; Wright and Klee, 2001; Henry-Edwards, 2003).

Given the higher potency of crystal meth compared to amphetamine, it may be that crystal meth users would experience higher rates of side effects than amphetamine users. This was given support in a study of side effects reported by relatively infrequent crystal meth users in 2001 compared to a sample of heavier injecting amphetamine users from the early 1990s (Degenhardt and Topp, 2003). Crystal meth users were more likely to report acute side effects (Degenhardt and Topp, 2003). In many cases, the prevalence of side effects was no different between amphetamine and crystal meth users: these included paranoia, depression, anxiety and vomiting/nausea. Research has found that methamphetamine psychosis lasts longer than amphetamine psychosis (Iwanami et al., 1994).

1.2.5. Neurotoxicity

Evidence continues to mount that chronic methamphetamine use is associated with persistent changes in a number of brain neurotransmitter systems (Nordahl et al., 2003; Ernst et al., 2000; Thompson et al., 2004). These changes may be functionally significant: abnormalities in brain function in methamphetamine dependent persons were found in brain regions implicated in mood disorders such as depression, and were correlated with reports of depression in these individuals (London et al., 2004). Reassuringly, continued

abstinence from use of the drug may result in some return to normal neurotransmitter function (Nordahl et al., 2005).

1.2.6. Psychosis

It is well established that high doses of stimulants such as methamphetamine can induce a transient psychotic disorder, which closely resembles psychotic illnesses such as paranoid schizophrenia (Connell, 1958). Symptoms of methamphetamine induced psychosis include mood swings, hallucinations, paranoid delusions, impulsivity, and the potential for aggression and violence (Jenner et al., 2004). Crystal meth use has received attention because of its relationship to methamphetamine-induced psychosis, and the number of these cases has increased in some countries in recent years (Matsumoto et al., 2002; Yui et al., 2001; Farrell et al., 2002).

The occurrence of methamphetamine psychosis often follows a period of recurrent binge use of the drug, which may include escalating doses across binges (Segal and Kuczenski, 1997). Psychotic symptoms have been linked to blood levels of the drug (Batki and Harris, 2004), although some psychotic symptoms may be experienced (particularly by persons vulnerable to psychosis) at relatively low levels (Chen et al., 2003; Hall et al., 1996).

Some have suggested that sensitisation to methamphetamine psychosis may develop (Sato et al., 1992; Sato, 1992; Ujike and Sato, 2004). This refers to the possibility that persons who have previously developed methamphetamine psychosis may be more likely to develop psychotic symptoms at lower levels of use, should they return to use.

Reduction of blood levels of methamphetamine (following reduced use) will typically lead to a reduction in psychotic symptoms (Dawe and McKetin., 2004). Among persons vulnerable to psychotic illness, or among those who have already developed psychotic disorders, exacerbation of symptoms may not be ameliorated through simply reducing use.

1.2.7. Dependence

As noted in the discussion of GHB dependence above, dependence involves a cluster of symptoms that include impaired control over drug use, as indicated by continuing to use in the face of recurrent problems that the user knows (or believes) to be caused by their use (American Psychiatric Association, 1994). These problems include legal difficulties, imprisonment, interpersonal and family problems, and serious health problems. Such persons often continue to use the drug to avoid withdrawal symptoms. There is good evidence that users can become dependent upon amphetamines (Topp and Mattick, 1997a). The methamphetamine withdrawal syndrome includes craving for the drug, fatigue, psychological distress (irritability, depression, anxiety, disturbed sleep, and problems with concentration) and physical problems that may include sweating, decreased appetite, and body aches (Topp and Mattick, 1997b).

The development of methamphetamine dependence occurs after a period of sustained regular use, and includes symptoms such as marked tolerance to the drug and withdrawal symptoms if use ceases. A number of factors probably increase the risk of development of problematic or dependent crystal meth use. These are likely to include a history of other drug problems, psychological problems, and using the drug more than weekly (Lee, 2004).

International experience has shown that the problematic use of potent methamphetamine is associated with harms in a number of domains, most notably psychiatric problems (Zweben et al., 2004; London et al., 2004), but also physical, relationship, occupational, financial and legal issues (Kurtz, 2005; Joe-Laidler and Morgan, 1997; Morgan and Beck, 1997; Pennell et al., 1999).

There are several reasons why the dependence potential of crystal meth may be higher than for methamphetamine powder. First, crystal methamphetamine is a more potent form of methamphetamine than "speed" powder (Chesher, 1993a). Second, the street purity of crystal meth is likely to be significantly higher than powder forms: perhaps 80% compared to around 10% for powder forms (Stafford et al., 2005a). Finally, many people smoke the drug, which is a much more effective route of administration (in terms of speed of onset of effects, and the "high" achieved) than, for example, snorting a drug. This might mean that crystal meth users are more likely to escalate their use of the drug,

and that this process may occur more quickly. In other words, it is reasonable to hypothesise that more potent forms of methamphetamine have a higher dependence liability than methamphetamine powder.

1.2.8. Sexual risk behaviours

Among homosexually active men, considerable research has investigated associations between drug use and risk behaviours, particularly unprotected anal intercourse (UAIC) (Rusch et al., 2004; Halkitis et al., 2001; Colfax et al., 2001). This research seems to have been driven by understandable concern about documented associations between drug use and HIV risk (Gonzales et al., 1999; Colfax et al., 2001; Colfax et al., 2004; Chesney et al., 1998; Frosch et al., 1996a; Halkitis et al., 2001; Semple et al., 2004a; Reback and Grella, 1999; Anonymous, 2004a; Anderson and Flynn, 1997; Richters et al., 2002).

Multiple papers, mostly from the United States, have documented higher rates of sexual risk behaviours among men who report using crystal meth (Colfax et al., 2005; Reback et al., 2004; Halkitis et al., 2001; Farabee et al., 2002; Frosch et al., 1996b; Halkitis et al., 2005b; Molitor et al., 1999; Rusch et al., 2004; Semple et al., 2004b; Anonymous, 2002; Kall and Nilsonne, 1995; Semple et al., 2002b). The concomitant association with HIV infection has also received considerable discussion and debate (Buchacz et al., 2005; Rawstorne and Worth, 2004; Smith et al., 2004; Slavin, 2004; Boddiger, 2005; Urbina and Jones, 2004; Halkitis et al., 2001; Colfax et al., 2001). Higher rates of sexual risk behaviours have been documented among homosexually active men in Sydney who report having used crystal meth (Van de Ven et al., 2004; Rawstorne and Worth, 2004; Smith et al., 2004; Slavin, 2004).

An association with risk taking is *not* unique to methamphetamine, but has been a commonly reported association with many types of drug use (Halkitis et al., 2001, Paul et al., 1993). A simple association between drug use and sexual risk behaviour also does *not* imply causality. In one sense, drug use can be seen as a marker of risk taking: research has often found that people who report drug use are more likely to take risks in a number of areas than persons who do not use drugs. Furthermore, a simple association between drug use in a given period and sexual risk during the same period does not mean that the two were related: the drug use may have occurred at a different time than when sexual risks were taken.

Problematic drug users (including problematic methamphetamine users) are also more likely to be injecting drug users. Some may take risks when injecting: risk behaviours such as sharing of injection paraphernalia also places them at increased risk of HIV transmission (Ibanez et al., 2005; Des Jarlais and Friedman, 1996; Patterson et al., 2005; Molitor et al., 1999; Bull et al., 2002).

In recent years, there have been many reports of increases in rates of sexual risk behaviours among homosexually active men, in Europe, Canada, the United States as well as Australia (Elford and Hart, 2005). In the US, crystal meth has received much attention as a possible reason for this increase, given the increased availability of methamphetamine in the US during this time. However, increases in sexual risk behaviours with casual partners have occurred among homosexually active men in England during recent years *without changes in the availability or use of crystal meth* (Mercer et al., 2004; Elford et al., 2004), suggesting that multiple factors explain this change.

It is important to consider the reasons why an association exists between crystal meth and sexual risk behaviours. It is unlikely to reflect a simplistic causal mechanism whereby the drug in some way compels the user to take unanticipated (or unwanted) risks. There is good evidence to suggest that crystal meth use and risky sexual behaviours co-occur within a constellation of other important factors, some of which are related to the drug, and some of which are not. These might be grouped as follows: changes in the availability of methamphetamine; the effects of the drug; motivations for use; perceptions of risk; the types of persons taking such risks; and changes in the epidemiology of HIV and STIs.

Changes in the availability of methamphetamine

As noted above, the availability of methamphetamine has increased in many countries around the world. It is not surprising that crystal meth use has increased in GLBT communities: it has increased across many communities. The increased prevalence of crystal meth use among homosexually active men needs to be viewed within the generally changing epidemiology of crystal meth use, since levels of use are rising across many subgroups.

Effects of the drug

Because it is a stimulant drug, crystal meth allows periods of extended and continuous sex. This obviously means that there is an extended window period during which unsafe sex (whether intended or not) may occur. It has been suggested that the disinhibiting effects of the drug are related to increased risk taking. The decreased inhibition that users report probably does lead to increased risk taking, but research has suggested that it is the disinhibiting effect of the drug that is considered one of the positives for many users (see below).

Motivations for use

Any drug use is linked to expectations of the drug's effects (Halkitis et al., 2005a; McKirnan et al., 2001). Many users use a drug precisely *because* they wish to experience loss of inhibitions, a sense of escape, or to heighten sexual encounters such that they may be more intense or pleasurable for that individual (Diaz et al., 2005; Halkitis et al., 2005a; Ross et al., 2003; Smith et al., 2004; McKirnan et al., 2001).

The effects upon sexual arousal that are commonly reported by crystal meth users may often be the precise reason why they take the drug. Crystal meth has been associated with a higher likelihood of unprotected anal intercourse (UAIC), but this is not necessarily UAIC that was unintentional. Receptive anal intercourse is, however, the riskiest sexual behaviour in terms of HIV transmission.

Individual factors

It is likely that methamphetamine use during sex is one characteristic of persons who may be more impulsive, or be predisposed to taking greater risks overall (Kall and Nilsonne, 1995; Patterson et al., 2005). Rates of methamphetamine use are higher among some groups such as those who meet sex partners via internet websites and those who engage in esoteric sex acts[1]. Such sub-populations are probably more likely to include men who take greater risks during sex irrespective of methamphetamine use. A study of men who used methamphetamine during sex found that rates of risk behaviours were the

[1] "Esoteric sex" or "adventurous sex" includes fisting, water sports, sadomasochism, bondage and discipline, and fetish sex.

same *regardless of whether they used methamphetamine during that sex episode* (Halkitis et al., 2005b). The men who used methamphetamine during sex were just as likely to engage in unprotected sex and "extreme" sex acts when they were sober (Halkitis et al., 2005b).

Research has strongly suggested that varied factors predict an increased likelihood of UAIC (Van de Ven et al., 1997). Drug use is one factor, but when the multiple factors associated with UAIC were controlled for in one Australian study, drug use did not remain a significant predictor of UAIC. In other words, although a simple association did exist, other characteristics of the men in the study (such as HIV status, sexual practices and employment status) were more important (Van de Ven et al., 1997). Other research found that among HIV negative, homosexually active men, drug use (of any kind) during the sex episode was not associated with UAIC (Prestage et al., 2005). Decisions to engage in UAIC were reportedly associated with knowledge of HIV serostatus of the sex partner and by strategies to reduce risk, rather than factors such as drug use (Prestage et al., 2005).

This is consistent with research suggesting that sexual risk behaviours are likely to be concentrated among some groups of homosexually active men (Bolding et al., 2005), and related to factors such as risk perception and risk reduction strategies more than drug use.

Changes in HIV epidemiology and perceptions of HIV risk

The changes in availability of crystal meth in Australia have occurred following a period during which HIV transmission has been declining in this country. Important changes have also occurred over the past decade in the epidemiology of HIV, and in the treatment of this illness. Conceptions of the HIV illness are changing: improvements in treatment outcomes have led to an increase in optimism about HIV since the early 1990s (Van de Ven et al., 2000).

It has been suggested that the advent of highly active antiretroviral therapy (HAART), with the reductions that it causes in HIV viral load as well as with reductions in HIV/AIDS related morbidity and mortality, may have led to changes in risk behaviours; this has been the subject of some debate (Kippax and Race, 2003; Elford et al., 2001; Stephenson et al., 2003; Elford and Hart, 2005). This could be because there is an

understanding that reduced viral load reduces (or removes) infectivity. There are several ways in which this can be examined (Elford and Hart, 2005; Crepaz et al., 2004): a) considering whether HIV positive persons receiving HAART (versus those who are not) are more likely to engage in sexual risk behaviours; b) examining whether persons with an undetectable viral load have greater sexual risk behaviours than those with a detectable viral load; and c) examining whether HAART-related beliefs are related to sexual risk behaviours.

A meta-analytic review of research on HAART and sexual risk behaviours synthesised existing research on these issues (Crepaz et al., 2004). There was no significant relationship between receiving HAART treatment or having a detectable viral load, across the existing studies, and the likelihood of sexual risk behaviours. There *was* an association with *perceptions* of HAART or viral load and sexual risk behaviours. Those who thought that HAART reduced HIV transmission, or for whom unsafe sex was less of a concern given the availability of HAART, were more likely to engage in unsafe sex (an association found in 12 of 18 studies) (Crepaz et al., 2004).

This suggests that perceptions of HIV risk are likely to be important factors related to the likelihood of taking risks during sex (Crawford et al., 2001; Kippax and Race, 2003). They are unlikely to be the whole picture: it was estimated that 10% of recent increases in sexual risk behaviours in the UK could be attributed to changes in perceptions of HIV risk (Elford, 2004).

1.2.9. Impact upon HIV positive persons

Motivations for use

Previous research with HIV positive men has found that many use crystal meth for the same reasons as HIV negative persons: to feel good, to experience sexual arousal, and to have reduced inhibitions (Semple et al., 2002a). However, some used crystal meth in order to "escape" from awareness of their HIV positive status, to manage negative feelings about themselves, and to cope with the prospect of death from HIV/AIDS (Halkitis et al., 2005a; McKirnan et al., 2001; Semple et al., 2002a). Some also used crystal in order to *facilitate* risk: to approach possible sex partners and have multiple partners (Semple et al., 2002a).

Interaction with antiretroviral medication

There is evidence to suggest that the effects of methamphetamine (and other forms of amphetamine such as MDMA) may be greater for HIV positive persons receiving combination antiretroviral therapy, particularly ritonavir (a protease inhibitor) (Urbina and Jones, 2004; Halkitis et al., 2001). This is because ritonavir has greater affinity for certain enzymes (such as CYP2D6) than methamphetamine, so blood levels of methamphetamine (if used concomitantly) may be three to ten times greater than among those not taking ritonavir (Pritzker et al., 2002). There has been one Australian case report of an HIV positive man receiving combination antiretroviral therapy (including ritonavir) who died from a methamphetamine overdose following injection of the drug (Hales et al., 2000), and case reports of MDMA-related fatalities occurring in the same manner (Henry and Hill, 1998). These potential risks need to be investigated further.

Impact upon treatment effectiveness

In cell cultures and animal models, methamphetamine has been found to accelerate retroviral replication (Ahmad, 2002). Research with humans to examine whether methamphetamine was associated with increased viral replication suggested that methamphetamine use was also associated with increased viral loads among those taking HAART (Ellis et al., 2003).

This might be explained by decreased treatment adherence among HIV positive persons using crystal methamphetamine, although there needs to be more research conducted to examine whether methamphetamine alters metabolism of antiretroviral medications (Ellis et al., 2003). One study in the United States found that among HIV positive men receiving treatment for methamphetamine dependence, methamphetamine was associated with "unplanned non-adherence" to HIV medication (Reback et al., 2003). This was distinct from "planned non-adherence" to treatment whereby HIV positive persons took a break from the schedules of HIV medication. Unplanned adherence was thought by participants to be the result of the impact of methamphetamine upon sleep and food intake (Reback et al., 2003).

It is important to note that reduced treatment adherence is not unique to methamphetamine dependence: most problematic drug use is probably disruptive to

adherence to HIV medication regimes. Regardless, poor adherence to HAART is associated with the development of resistance to antiretroviral drugs as well as to less effective inhibition of viral replication (Ellis et al., 2003). Future research needs to further examine the potentially different mechanisms through which methamphetamine use may be related to increased viral load, and appropriate responses to this issue.

Synergy of neurotoxic effects

A recent study suggested that chronic methamphetamine use and HIV might have additive negative effects upon the brain (Chang et al., 2005). One of the possible consequences of HIV infection is HIV-related dementia, a clinical condition involving deficits in memory, psychomotor slowing, and apathy; later stages of the illness can include psychomotor deficits and gait disturbance (Berger and Arendt, 2000). The effects of HIV and methamphetamine upon neurotransmitter function are similar in some ways, and there is some evidence to suggest that methamphetamine may have a negative impact upon this condition (Urbina and Jones, 2004; Ahmad, 2002; Chang et al., 2005). One case study suggested that HIV dementia was accelerated in a methamphetamine dependent individual (Nath et al., 2001). Further research is certainly required, but these findings are cause for concern.

2. TRENDS IN USE IN THE GLBT COMMUNITY IN NSW

This section of the report will outline the existing data on GHB and crystal methamphetamine use in the GLBT community in NSW. The data available are limited and fairly superficial in the information they can provide about GHB and crystal meth use and their relationship to harm. Furthermore, we could not gain access to data on use in the transgender community, so data presented here do not include this group.

The two major sources of information on recent trends derive from surveillance studies with sentinel groups of homosexually active men (such as the Sydney Gay Community Periodic Survey and the Health in Men cohort), with women identifying as lesbian, bisexual or queer (the Sydney Women and Sexual Health study), and with regular ecstasy users (the Party Drugs Initiative). These studies have provided some time trend data on drug use among gay/bisexual men and women, but there is a distinct lack of detailed data on these issues. Additional studies primarily conducted jointly at the National Centre for HIV Social Research (UNSW) and the National Centre in HIV Epidemiology and Clinical Research (UNSW) provide additional, more in depth information on different issues and sub-populations within the GLBT community (primarily homosexually active men).

This section also summarises the data collected from the community forums conducted in late 2004 and early 2005 in Sydney for this study. The first two forums, in particular, provided useful data on community concerns and opinions about use and harms related to crystal meth use. The topics and dates of the community forums are summarised in Appendix A.

Interviews with a dozen key experts (KE)[2] from Sydney were also conducted during early 2005. Interviews were conducted with general practitioners (GPs) in inner city clinics, drug counsellors, GLBT outreach workers, party promoters, and managers of sex on

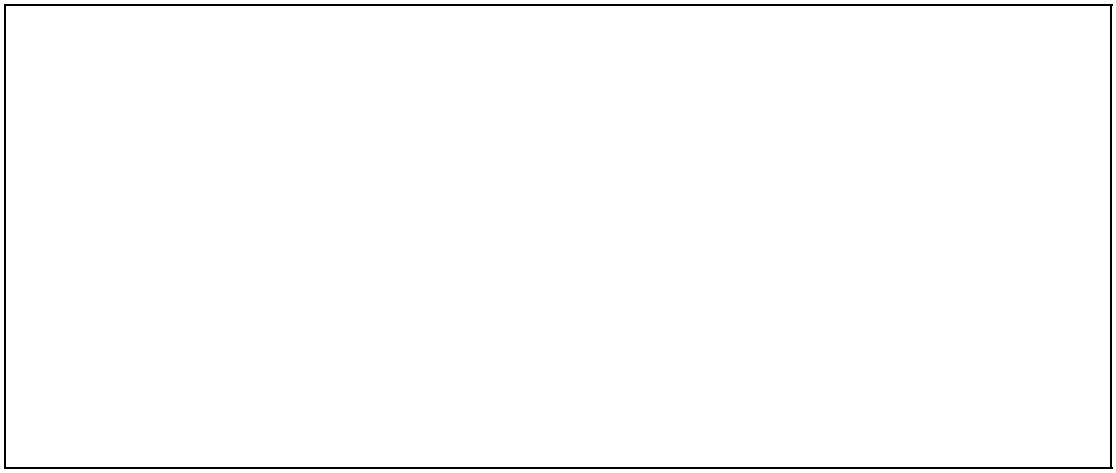
[2] Multiple attempts were made to conduct interviews with expert(s) who might be able to comment on the use of these drugs in the transgender community, but interviews could not be conducted within the timeframe required for this report.

premises venues. The notes from these interviews have been used where appropriate to provide additional contextual information.

2.1. Trends in GHB use

Evidence of GHB use in Australia originally arose from anecdotal reports of persons being admitted to accident and emergency departments after overdosing on GHB, and from law enforcement intelligence (Australian Bureau of Criminal Intelligence, 2000). This was supplemented by research from the Australian Illicit Drug Reporting System (IDRS) and Party Drugs Initiative (PDI) – Australia's drug early warning systems – which tracked increasing use of GHB among sentinel groups of regular ecstasy users in NSW (Breen et al., 2002; White et al., 2003). Since 2003, the Party Drugs Initiative (PDI) has been conducted on a national level, with reports of GHB use among ecstasy users in every state and territory in Australia (Stafford et al., 2005a; Breen et al., 2003b). In NSW, the proportion of regular ecstasy users who report GHB use has increased since 2000 (Figure 3) (Degenhardt et al., 2005).

Figure 3: GHB use in the past 6 months among regular ecstasy users, NSW 2000-2004



Source: NSW Party Drugs Initiative ecstasy user interviews (Degenhardt et al., 2005)

In the most recent (2004) PDI sample, 16% of gay/bisexual men and 8% of lesbian/bisexual women reported GHB use in the past 6 months; these rates were not significantly different from those reported by heterosexual men (11%) and women (8%) (Degenhardt, in press). Most use was sporadic. Reports from KE interviewed as part of

this study suggested that the use of GHB among GLB[3] (gay/lesbian/bisexual) populations in Sydney had either stabilised or had decreased somewhat. This is consistent with reports obtained from the PDI. No data were available from behavioural surveillance studies with homosexually active men. In the 2004 Sydney Women and Sexual Health (SWASH) survey, 3% of women reported having used GHB in the past 6 months (Richters et al., 2005).

Figure 4 shows the locations in which GHB users interviewed in the 2004 PDI reported having obtained and used the drug in the past 6 months. *Purchase* of GHB was clearly concentrated in private locales (the user's own home, or that of their friend or dealer). Use of the drug, whether referring to a usual location of use or their last location of use, was most likely to be in a nightclub or in the user's own home. Reports from sex on premises venues operators suggested that, to their knowledge, there had been stable or perhaps decreasing GHB use in the venues. The PDI does not specifically ask users whether they had used any drug in a sex on premises venue, so no data were available from the PDI on this issue.

Figure 4: Reported purchase, usual use, and last use locations of GHB among regular ecstasy users who had recently used GHB, NSW PDI 2004

Source: NSW Party Drugs Initiative ecstasy user interviews (Degenhardt et al., 2005)

[3] Due to the unavailability of data concerning the transgender community, the data presented does not include this group.

Although these data suggest that GHB use has not changed significantly in recent years, some reports were received regarding the continued use of GHB among certain sub-populations in the GLBT community. In particular, some homosexually active men were reported to be using both GHB and crystal meth during sex. There was some indication from these reports that the use of GHB had become socially stigmatised such that there was little discussion about its use among peer networks, and use tended to be in private homes rather than in public venues such as nightclubs or dance parties. PDI data are consistent with this, but do suggest that a significant proportion of GHB users are still using GHB in public venues such as nightclubs (Figure 4).

2.2. Trends in GHB- related harm

The sections below summarise the existing data on harms related to GHB. No data from routine data collections could be related to the GLBT community in particular. However, GHB overdose presentations in particular have been concentrated in the inner Sydney area close to the district in which there is a concentration of nightclubs, pubs and bars that cater particularly to the GLBT community.

2.2.1. Overdose

One of the reasons for the considerable media attention around GHB has derived from numerous anecdotal and case reports of GHB overdose. GHB is known as a drug with a steep dose-response curve, which means that the difference between a 'desired' dose and one that renders the user unconscious is very small (Nicholson and Balster, 2001). In recreational settings, the additional factors of inconsistent potency, variable individual response to GHB, environmental conditions and polydrug use may increase risks of GHB overdose despite the best intentions of users to reduce these risks.

Concerted media attention on GHB-related overdose has existed in Australia, with wide media reporting of occasions where multiple GHB overdoses have occurred. Recent analysis of data from coronial records from 2000-2003 suggested that 10 deaths were associated with the use of GHB, with 8 of these cases confirmed as primarily caused by the drug (Caldicott et al., 2004).

It is not possible at this time to report statistics on the numbers of GHB overdoses presenting to emergency departments and hospitals in Australia. This is because GHB is not separately recorded in the classification system used in these settings, and no alternative mechanism for routinely documenting GHB overdoses has yet been developed around the country.

It is certainly the case, however, that emergency departments in Sydney collect their own data on the number of presenting cases of GHB overdose. It has been reported by staff from one Sydney emergency department located close to a nightclub district that they receive several cases of GHB overdose each weekend night, some of whom require life support and remain in intensive care. It was reported that over 150 cases of GHB overdose had presented to this hospital in the first half of 2004 (Degenhardt et al., 2005).

Given that anecdotal reports suggest continued occurrence of GHB overdoses, as well as reports from hospitals in increasing locations and jurisdictions around the country, it would be desirable for some simple mechanism for collecting and reporting these adverse events to be developed.

2.2.2. Dependence

As noted above, tolerance to and physical dependence upon GHB can and does develop. No data specific data on the prevalence of GHB dependence in the GLBT community were available for this study.

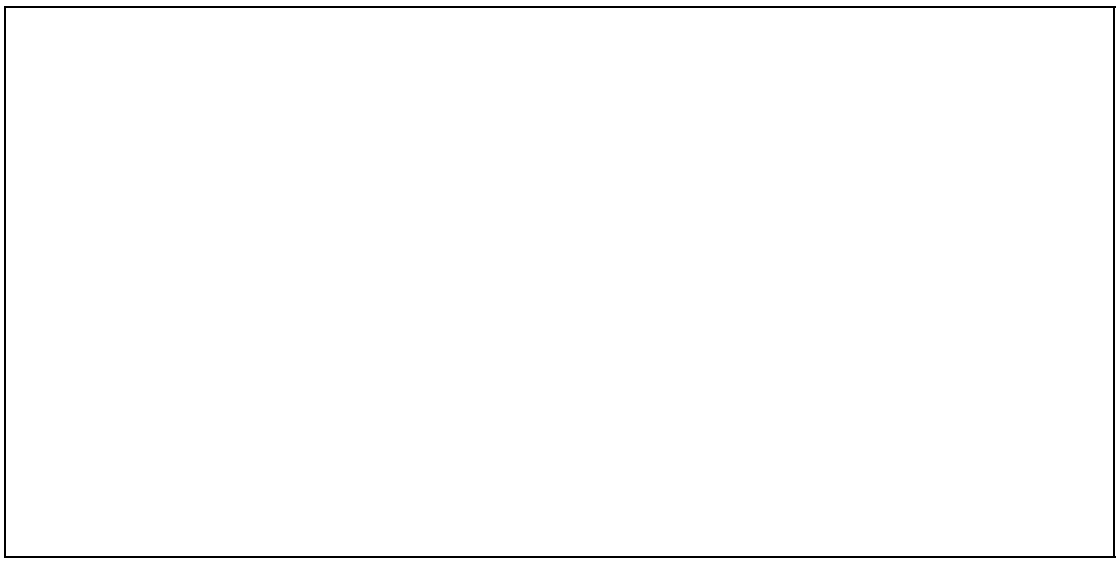
In the 2001 Australian study of GHB users, 4% were tentatively classed as 'dependent' (Degenhardt et al., 2002). Among the ecstasy users surveyed for the PDI in 2004, GHB use tends to be infrequent: the heaviest use reported in the 2004 sample was 26 days out of the past 180 (corresponding to use around once per week) (Degenhardt et al., 2005). This is consistent with a predominant pattern of episodic, recreational use, rather than heavy or dependent use. Interviews with KE for this study did not reveal any expressed concerns from KE regarding GHB dependence among the persons with whom they were having contact.

2.3. Trends in crystal methamphetamine use

The increase in availability of potent forms of methamphetamine (see review section above) has been accompanied by increases in reported crystal meth use among regular injecting drug users (IDU) in NSW over the past four years (Black et al., 2005). Similar increases have been observed among ecstasy and related drug (ERD) users over the same period (Degenhardt et al., 2005).

The increased prevalence of use among regular ecstasy users is shown clearly below from the NSW PDI: use among gay/bisexual males and lesbian/bisexual females recruited for this study increased from zero prevalence among these groups in 2000, to around three in four in 2004 (Figure 5). Notably, the prevalence was higher among the GLB groups in the PDI than it was among the heterosexual participants (Figure 5), although the median frequency of use was not higher (Degenhardt, in press). In other words, the prevalence of use of this drug was higher among GLB ecstasy users in this sample, but, on the whole, use was no heavier among GLB users of the drug.

Figure 5: Proportion of regular ecstasy users reporting crystal meth use in the past 6 months according to sexuality, 2000-2004

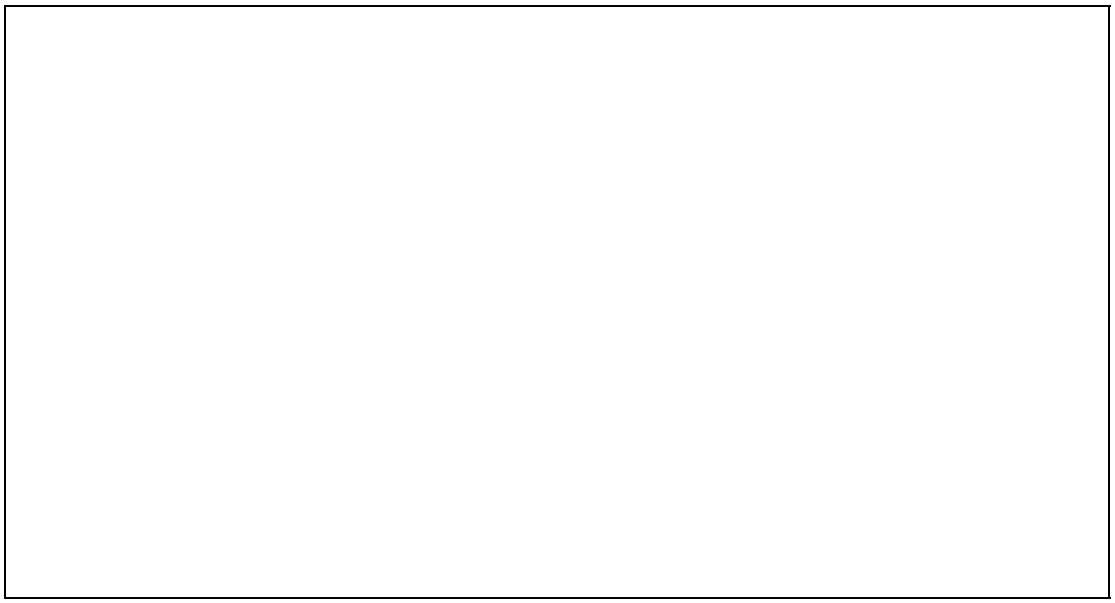


Source: NSW Party Drugs Initiative ecstasy user interviews (Degenhardt et al., 2005)

Similar increases have been reported over the same time period among samples of gay men sampled for the Sydney Gay Community Periodic Survey, from 10% in 2000 to 27% in 2003 (Figure 4) (Rawstorne and Worth, 2004; Van de Ven et al., 2004). It is

important to note, however, that the use of other drugs was still higher than for crystal meth. Alcohol, amyl nitrite and speed powder were more commonly reported drugs used by gay men (Figure 6). In the 2004 SWASH survey, 7% of women reported using crystal meth within the past 6 months (Richters et al., 2005). One percent reported having injected the drug within the past 6 months (Richters et al., 2005).

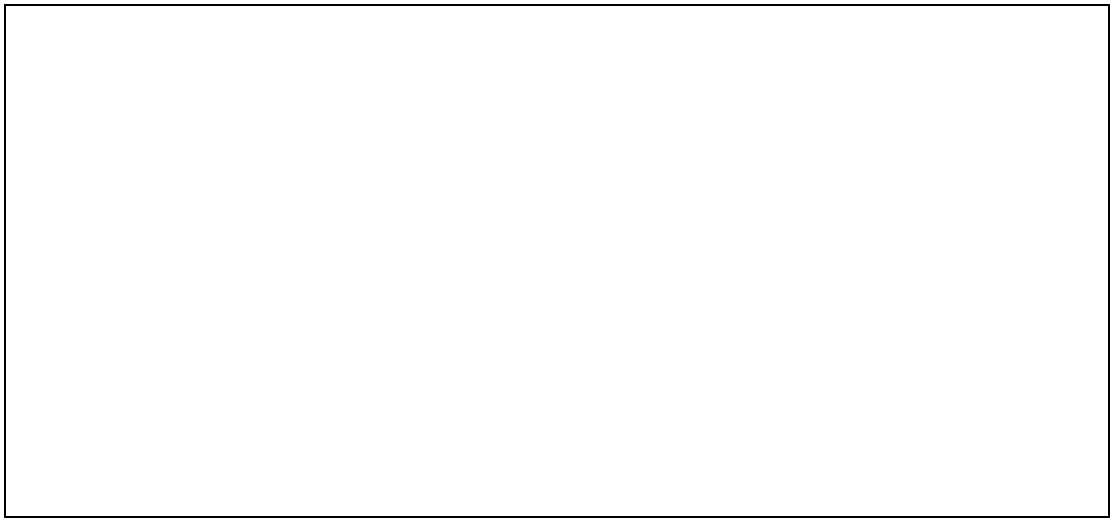
Figure 6: Proportion of gay men reporting drug use in the past 6 months, 2000-2003



Source: Sydney Gay Community Periodic Survey. Note that crystal meth was not included in the 2001 survey.

The purchase and use of crystal meth appears to be occurring in a wider range of locations than for GHB (Figure 7; c.f. Figure 4). Recent users of crystal meth interviewed for the 2004 PDI reported that they purchased crystal meth from private homes as well as pre-arranged public locations and, less commonly, nightclubs or pubs. Use also occurred in all these venues (in contrast to the concentration of GHB use in users' homes or in nightclubs): private homes, private parties, nightclubs, pubs and public locations were all nominated as places where recent crystal meth users had consumed the drug.

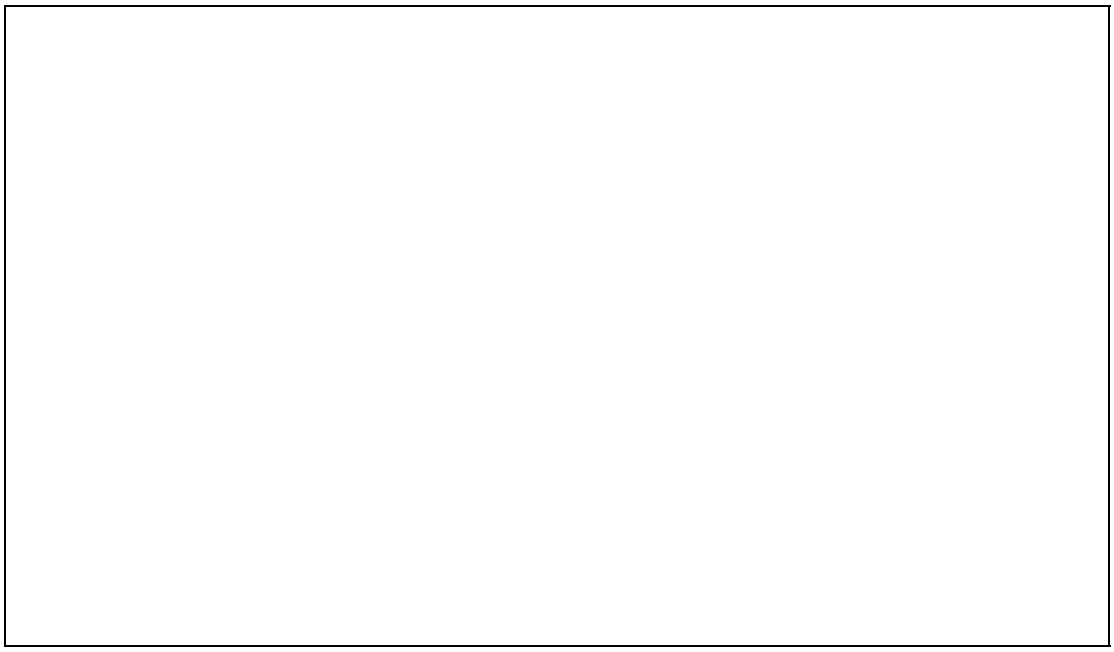
Figure 7: Reported purchase, usual use, and last use locations of crystal meth among regular ecstasy users who had recently used crystal meth, NSW PDI 2004



Source: NSW Party Drugs Initiative ecstasy user interviews (Degenhardt et al., 2005)

Data from the PDI show a clear differential across the different forms of methamphetamine used in the route of administration of the drug. Those reporting crystal meth use most commonly reported smoking the drug, compared to base and speed methamphetamine, which were more likely to be used through swallowing and snorting (Figure 8).

Figure 8: Route of administration according to form of methamphetamine used, 2004



Source: NSW Party Drugs Initiative (Degenhardt et al., 2005)

Smoking as a route of administration carries with it increased risks. Not only does smoking carry health risks (due to the potentially dangerous chemicals being absorbed through the lungs), but research has suggested that the speed of onset of effects and the "high" are similar for smoking as for injecting (Cook et al., 1993), which has obvious implications for the development of problematic use. These concerns were echoed during the key expert interviews for this study. Some mentioned that the ritual surrounding the smoking of crystal became one of the pleasurable aspects of using the drug, and for some was part of the social element of this drug use.

A further trend was reported by KE, however: there were reports from some that injecting was becoming more acceptable among some users who had previously been established crystal meth smokers. Previous research has suggested that homosexually active men who inject methamphetamine may be engaging in extensive drug and sexual risk behaviours (Bull et al., 2002). Furthermore, one study found that among methamphetamine dependent persons seeking treatment, injectors were more likely than non-injectors to have a history of psychological problems, depression, hallucinations, poorer sexual functioning, more extensive criminal activity and legal difficulties (Domier et al., 2000). An increase in persons reporting injection as the primary route of administration is cause for concern if it is taken as a possible marker for more extensive problems in other domains. Injection as a route of administration also carries with it the well-known risks of blood-borne virus transmission.

Discussions during the ACON community forums in 2004 (Appendix A) revealed clear concerns about perceived increases among the GLBT community in the use of crystal meth. Increases were noted among gay men, lesbians, and persons in the sex work industry. Of note were several comments by participants in forums that the focus tended to be upon use by gay men, whereas it was felt that use was also a problem for some lesbians despite having less community attention.

Many comments from forum participants reflected concerns around the development of problematic or dependent use. Indeed, the first community forum held by ACON had been focused upon crystal meth use and its association with sexual risk behaviours, but the discussion during the forum strongly reflected a greater concern stemming from the

experience of many participants of their own or others' dependent crystal meth use and the problems this had generated for them. These will also be discussed below.

2.4. Trends in crystal meth-related harm

A number of harms will be considered here: dependence (and the detrimental effect of problematic use upon social, employment, relationship and financial stability); methamphetamine induced psychosis; and impacts upon HIV positive persons.

Trends in sexual risk behaviours among homosexual men will also be examined, as will trends in STI and HIV notifications. These are included here due to the community concern about possible relationships between crystal meth use and sexual risk behaviour. Inclusion of these in this section of the report does not imply that changes are the result of (or necessarily related to) crystal meth use. As discussed earlier in this report, a range of factors is likely to influence sexual risk taking behaviour, which include individual level factors (propensity to taking risks as well as risk perception) and community level factors, and any changes in drug use among groups taking risks need to be viewed against these factors.

2.4.1. Psychosis

The issue of psychosis was commonly mentioned in both the forums that were held by ACON and during the KE interviews. The stories of users themselves, and of persons who had been close to users, were consistent in demonstrating a relative lack of clarity around the early signs of psychosis and appropriate ways in which to deal with this. Many commented that users were typically unaware of developing psychotic symptoms: it was those around them who first noticed erratic or strange behaviour rather than users themselves.

Consistent with the reports of users, hospital data suggest that most hospital admissions for methamphetamine problems relate to methamphetamine induced psychosis (McKetin and McLaren, 2004). These admissions have been rising consistently over the past decade.

2.4.2. Dependence

Risks of developing problematic crystal meth use were the most frequently mentioned concern in the forums held by ACON in September 2004 (see Appendix A). Interviews conducted during this study with key experts (KE) involved in an inner city general practitioner (GP) practice (dealing with many HIV positive clients) also suggested that crystal meth was presenting significant issues for a number of their clients. The GPs interviewed reported that the patients presenting with such problems ranged widely in age and "did not fit any specific stereotype". They ranged from "street kids working the wall" to professionals. Indeed, there was specific mention that crystal meth use was beginning to impact upon the professional lives of formerly very successful businesspeople.

It is important to note that dependent crystal meth users are likely to form the minority of crystal meth users from the GLBT community. Most crystal meth users are infrequent users of the drug. The median number of days of use among those using crystal meth in the party drug users recruited for the PDI[4] was 8 out of the past 180 days for bisexual women/lesbians, and 5 days out of the past 180 for gay/bisexual males (Degenhardt, in press). Daily crystal meth use was reported by one lesbian (out of 44 crystal meth users) and two gay/bisexual males (out of 41 crystal meth users).

KE reported that for those presenting to GP services, crystal meth was rarely the presenting issue. Drug use (including crystal meth) was usually investigated by the doctor, not initiated by the patient. Patients presented with issues that GPs would not typically see: intense unhappiness or tears, and having a 'shitty' time and not really knowing why. When drugs were discussed as a possible contributor to how they were feeling, they usually agreed that drugs might be part of the problem.

A wide range of concomitant clinical problems was reported by these KEs, including agitated psychosis, aggression, depression and suicidal tendencies. It was noted that it was sometimes difficult to tell if a person was having a toxic reaction (as a direct result of a binge) or if they already had a pre-existing mental health condition and the drug use had brought a new episode on. Furthermore, some counsellors felt that some clients

[4] The sample comprised persons using ecstasy at least monthly.

were self-medicating with crystal meth to treat their depression. This is obviously problematic as it may contribute to a cycle of problematic use.

Other issues mentioned by key experts and in the ACON forums included relationship problems, financial problems and housing problems. There were a number of comments related to the increased isolation and alienation of problematic crystal meth users from their social networks, as they were considered "messy" and "not someone to be seen with", particularly if they moved onto injecting.

2.4.3. Sexual risk behaviours

As noted in the review above, considerable research attention has been devoted to the use of crystal meth among homosexually active men, and the association that this may have with unsafe sex behaviours. In NSW, the increases in crystal meth use noted above have occurred at the same time as increases in sexual risk behaviours among homosexually active men.

Trends in sexual risk behaviours

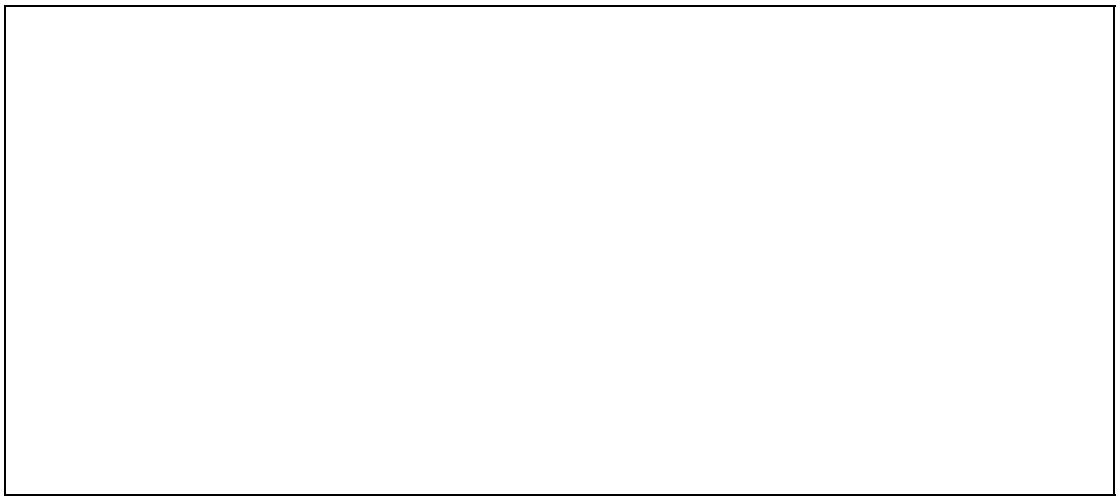
In the Sydney gay men's community periodic survey, there have been stable rates since 1996 in rates of *overall* sexual activity with both regular and casual partners (Hull et al., 2003). The rates at which homosexually active men reported disclosing their HIV status to casual partners also remained stable over the period, with most *not* disclosing their serostatus. However, steady increases have been observed in rates of anal intercourse, and, more importantly, in rates of unprotected anal intercourse (UAIC) among these samples (Van de Ven et al., 2002; Hull et al., 2003). Among persons with regular partners, rates of those reporting that they sometimes did not use protection increased from 40% in 1996 to 59% in 2002; increases occurred regardless of HIV status. Among casual partners, this increase was from 17% in 1996 to 34% in 2002; rates of unprotected sex were higher among HIV positive men. The authors argued that this might reflect unprotected sex between HIV positive partners (Hull et al., 2003, Van de Ven et al., 2004). The authors did not discuss the possibility that different strains of HIV might be transmitted between HIV positive partners. It is important to note that partners who are seroconcordant and who have UAIC may be at lower risk of HIV transmission, but they remain at risk for STI infection.

Trends in drug use and sexual risk

Results from the Sydney Gay Community Periodic Survey have suggested that rates of crystal meth use among men reporting UAIC have increased in recent years, from around 10% of this group in 2000 to around 30% in 2003 (Figure 9) (Van de Ven et al., 2004). Rates of Viagra use have increased similarly among this group (Figure 9).

There are functional reasons why these two trends may have occurred. The use of methamphetamine in high doses may lead to a number of effects that include difficulties obtaining a full (or even partial) erection (sometimes known as "crystal dick") (Halkitis et al., 2001). It is not difficult to understand why some persons who choose to use crystal meth during sex may also choose to use Viagra, given that not all men may wish to be receptive anal sex partners. Further work needs to be done to investigate the possible relationship between crystal meth and viagra use and the possible harms associated with using these two drugs together.

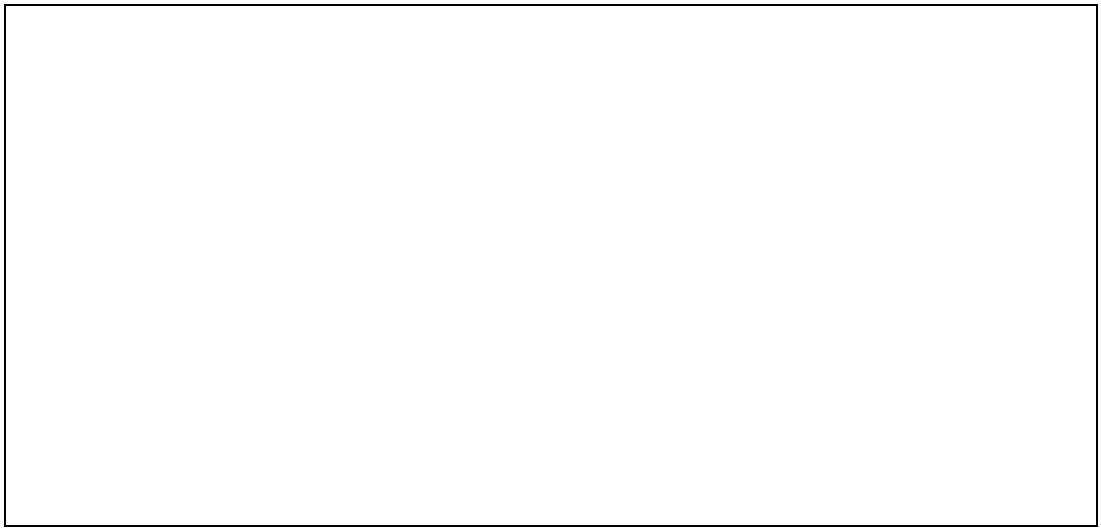
Figure 9: Prevalence of drug use among men who reported unprotected anal intercourse (UAIC), 2000-2003



Source: Sydney Gay Community Periodic Survey (Van de Ven et al., 2004)

Research has consistently found that sexual risk behaviours tend to be higher among drug users, and research with Sydney gay men is consistent with this. Rates of unprotected anal intercourse (UAIC) are significantly higher among those using *all* drug types than they are among non-users (Figure 10) (Rawstorne and Worth, 2004). Just over half of men using crystal meth did *not* engage in UAIC; those who injected crystal meth reported the highest rates of UAIC (62%).

Figure 10: Rates of unprotected anal intercourse (UAIC) among users and non-users of drugs



Source: Sydney Gay Community Periodic Survey (2003); (Rawstorne and Worth, 2004; Van de Ven et al., 2004)

It is important to remember that although there seems to be a higher rate of crystal meth use among men engaging in sexual risk behaviours, a) not all men engaging in sexual risk behaviours use drugs, and b) not all those using drugs during sex use crystal meth. Further, not all people who use crystal meth during sex engage in sexual risk behaviours.

The above research refers to samples of homosexually active men recruited from the gay community: research has suggested that there are some subgroups of homosexually active men who may face, or who are taking, greater risks. Recent Sydney research suggests that risk may be concentrated among some groups who have been identified as having high rates of crystal meth use.

The internet is becoming an increasingly popular method used by gay men in Australia to obtain sex partners (Murphy et al., 2004). These sites provide accessible, inexpensive and anonymous forums for men to look for sex partners as well as providing social environments (Murphy et al., 2004). Men who use these sites are more likely than those who do not to have more sex partners, be HIV positive, engage in unprotected sex and use crystal meth (as well as other drugs) (Murphy et al., 2004).

A significant minority of homosexually active men report engaging in "esoteric" sex practices, and those who do are more likely to engage in UAIC (Van de Ven et al., 2004).

Men engaging in esoteric sex have previously been found to be more likely to become HIV positive than those who do not (Kippax et al., 1998). A recent study involved men who self-identified as engaging in these "sexually adventurous" behaviours[5] (Smith et al., 2004). The research suggested that there is an adventurous sex subculture in Sydney, which is centred on internet sites, sex venues, certain nightclubs and social organisations. There was a high rate of casual sex among this group and many had engaged in UAIC (reportedly usually with someone with the same HIV status). Most preferred unprotected sex to protected sex. In anonymous sex, HIV positive men preferred to defer responsibility for using condoms to their partner; when having sex with a more familiar partner, HIV positive men were more likely to take a greater role in initiating discussion of condom usage (Smith et al., 2004). Most of the men interviewed for the study used drugs during sex and crystal meth was the most commonly used drug (Smith et al., 2004). Although drug use was felt to be involved in unsafe sex, many of these sexually adventurous men felt that there were a large number of reasons for unsafe sex, of which drug use was a relatively minor one.

Trends in sexually transmitted infections

The changes reported above have been accompanied by notable increases in the number of notifications of syphilis and genital chlamydia over the past five years (Figures 11 and 12). The data refer to *all* notifications of these STIs in NSW, but recent research also showed that, since 1999, the incidence of syphilis infections in Sydney alone has increased ten-fold (Jin et al., 2005).

Although the number of notifications of gonorrhoea has not increased as sharply over the same period (Figure 13), numbers are higher than those in the mid 1990s. The increase has been almost exclusively among men (data not shown).

These trends mean that the risk of contracting STIs is higher, since the background prevalence of these infections appears to be higher in the community. Syphilis infection has also been linked to an increased risk of HIV transmission (Law et al., 2002; Wasserheit, 1992), so this increasing trend is of considerable concern given the aforementioned increase in sexual risk behaviours.

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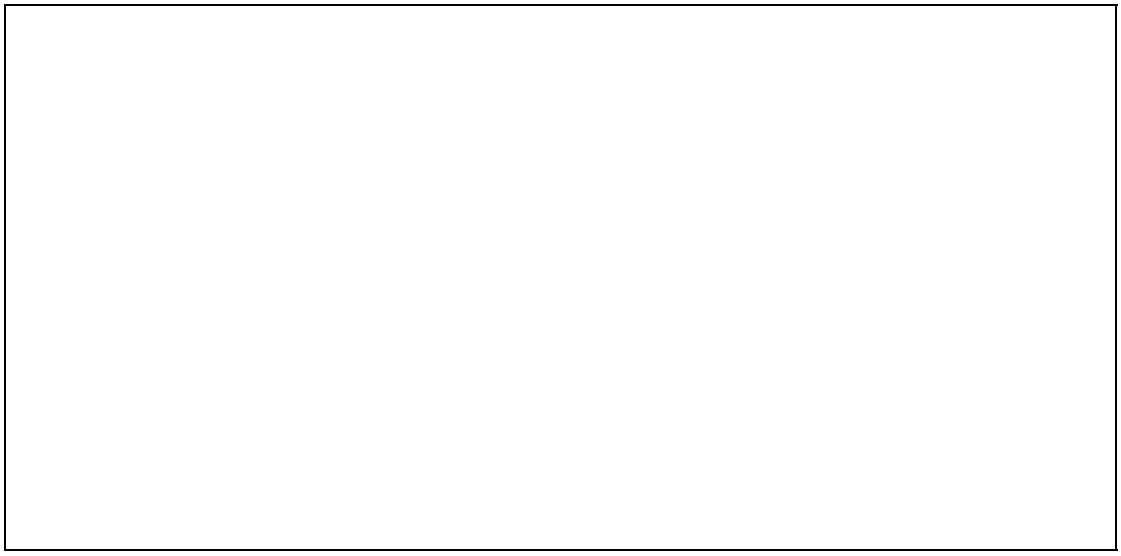
[5] "Adventurous sex" includes fisting, water sports, sadomasochism, bondage and discipline, and fetish sex.

Figure 11: Number of notifications of syphilis, NSW 2000-2005

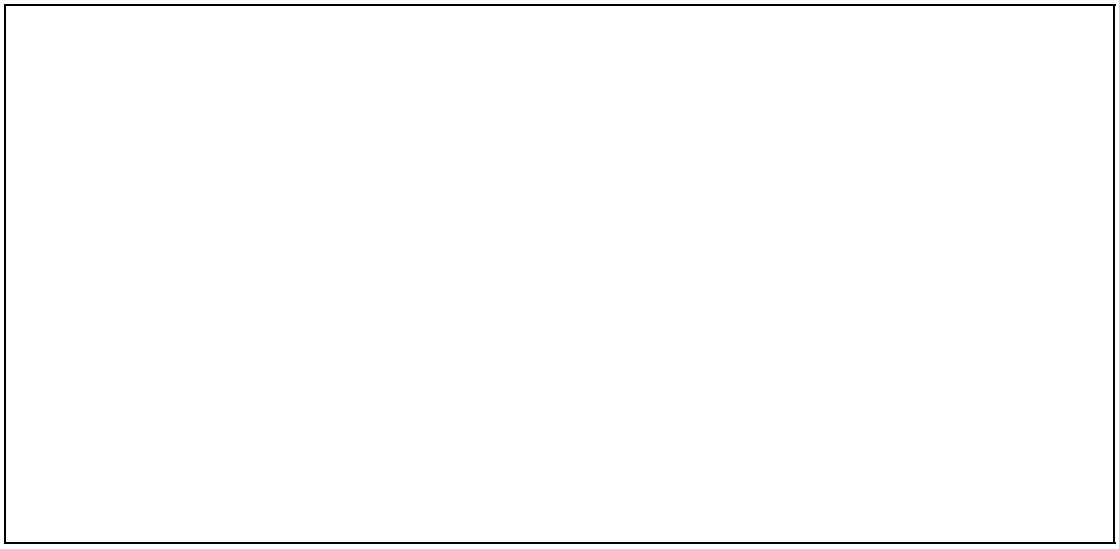
Source: NSW Health

Figure 12: Number of notifications of genital chlamydia, NSW 2000-2005



Source: NSW Health

Figure 13: Number of notifications of gonorrhoea, NSW 2000-2005

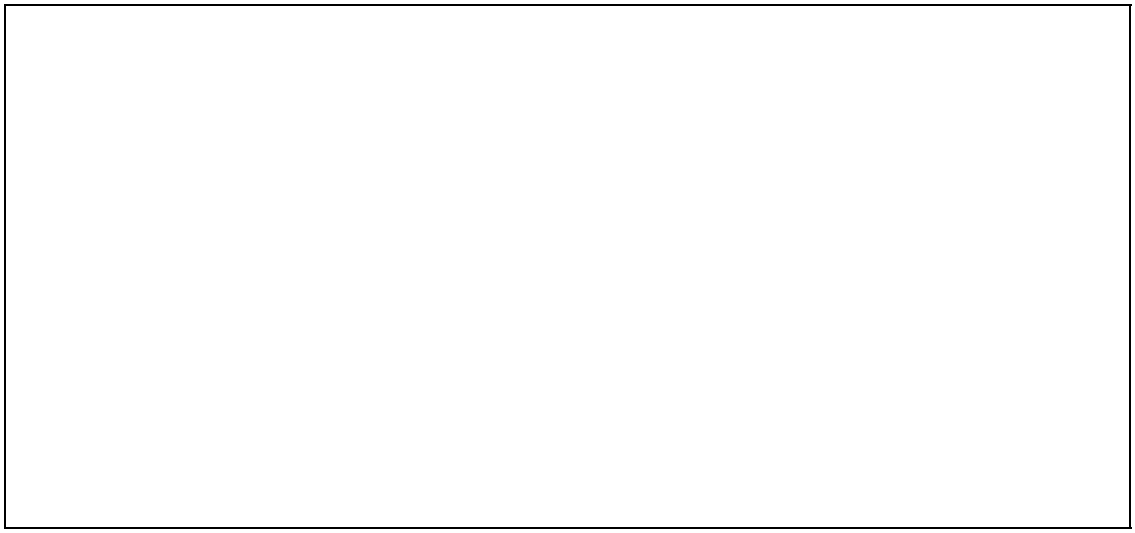


Source: NSW Health

Trends in HIV notifications

Figure 14 shows the annual number of notifications of HIV where male-to-male contact was noted as the mode of transmission. As can be seen, the number of notifications decreased relatively consistently from over 400 in 1993 to just over 200 in 2001. The following two years saw increases in the number of notifications, and in 2003 there were 281 notifications where male-to-male sexual contact was noted as the mode of transmission.

Figure 14: Number of notifications of HIV where male-to-male sexual contact was the recorded mode of transmission, NSW 1993-2003



Source: NSW Health

Australian research has suggested that there has been an increase in optimism about HIV since the early 1990s, reported by Sydney samples of both HIV positive and HIV negative gay men (Van de Ven et al., 2000). This is probably not surprising given the improvements in antiretroviral therapies during this time and their effectiveness in preventing AIDS and death (Sterne et al., 2005). There have been no significant changes since 1999, however, in the proportion of Sydney gay males who endorse statements about HIV and its treatment[6] (Van de Ven et al., 2004). This could mean either that the men in these samples did want to be seen to disagree with these statements (i.e. that there was a social desirability bias in the answers provided to the questions), or that attitudes towards HIV and its treatment have not changed in the past few years.

2.4.4. Impact upon HIV positive persons

The effect of crystal meth use upon HIV positive people was noted as an issue in ACON forums and by KE interviewed for this study. KE dealing with this population reported that the majority of HIV positive people who were presenting with crystal meth issues were well below the 95% adherence required for HAART to be effective and to avoid resistance to the medication.

There was also mention during the ACON forums of the negative effects of crystal meth use upon physical health. This was felt to be an important concomitant issue for HIV positive users.

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[6] Statements included the following:

- New HIV treatments will take the worry out of sex;
- HIV is less of a threat because the epidemic is on a decline;
- HIV/AIDS is a less serious threat than it used to be because of new treatments; and
- The availability of treatment (PEP) immediately after unsafe sex makes safe sex less important.

3. INTERVENTIONS

This section comprises a review of current evidence on the effectiveness of different interventions to minimise the harms related to GHB and crystal meth use. These include education and harm reduction initiatives (targeted both towards the entire community, and towards current users), and interventions designed to reduce demand for these drugs, which include efforts at preventing the initiation to use, but also include treatment for problematic use.

These sections review current research evidence (where available) on the effectiveness of these interventions, as well as outlining current interventions in NSW at each of these levels.

3.1. GHB

3.1.1. Demand reduction and harm reduction

Social marketing refers to a method used to achieve desirable behavioural change at the community level, typically involving mass marketing techniques that are used to correct misperceptions and to increase the social acceptability of a behaviour (Kotler and Zaltman, 1971; Goren, 2005). These techniques are commonly used tools for health promotion efforts that aim to influence social norms. Educational campaigns may be broad – targeted at the whole community (in this case, the GLBT community) – or towards particular subgroups such as drug users or certain subsections of the GLBT community.

The use of "fear appeals" is common in social marketing practice (Hastings et al., 2004), particularly in the areas of alcohol and drug prevention (Goren, 2005). However, the evidence for the effectiveness of such approaches is far from satisfactory (Hastings et al., 2004). Some have responded to drug problems by developing education campaigns based upon promoting the risks in an emotive and dramatic fashion. Such responses reflect real concern by these groups, but they are probably ineffective in reducing harms related to the drug. This is because fear-based campaigns probably act in a divisive manner, with

confirmed non-users having more negative views towards those who choose to use the drug, and the messages are most likely discounted by users, who may view the material as exaggerating the risks.

Education programs addressing drug use in the GLBT community in Australia have predominantly been developed using a harm reduction approach (as opposed to abstinence-based approaches). Some features of harm reduction approaches are listed in the text box below.

Some features of harm reduction approaches

- Be non-judgmental
- Avoid being parental/authoritarian
- Meet the client where they are
- Avoid having preconceived goals
- Provide guidance, consultation and support
- Value the client's information
- Be aware of power differences (skills, education, race, money)
- Build rapport/trust
- See small changes as success
- Recognise denial as normal
- Emphasise a client's (or a user's) strengths
- Emphasise personal responsibility for outcomes
- Avoid unnecessary labelling

At the time of writing this report, only one international educational campaign addressing GHB could be found. "Project GHB" is a website based in America that provides information on GHB including fact sheets and print media campaign materials. The project appears to have been set up by family members of people who have either died or been 'addicted' to GHB. Print media campaign materials are only available for sale.

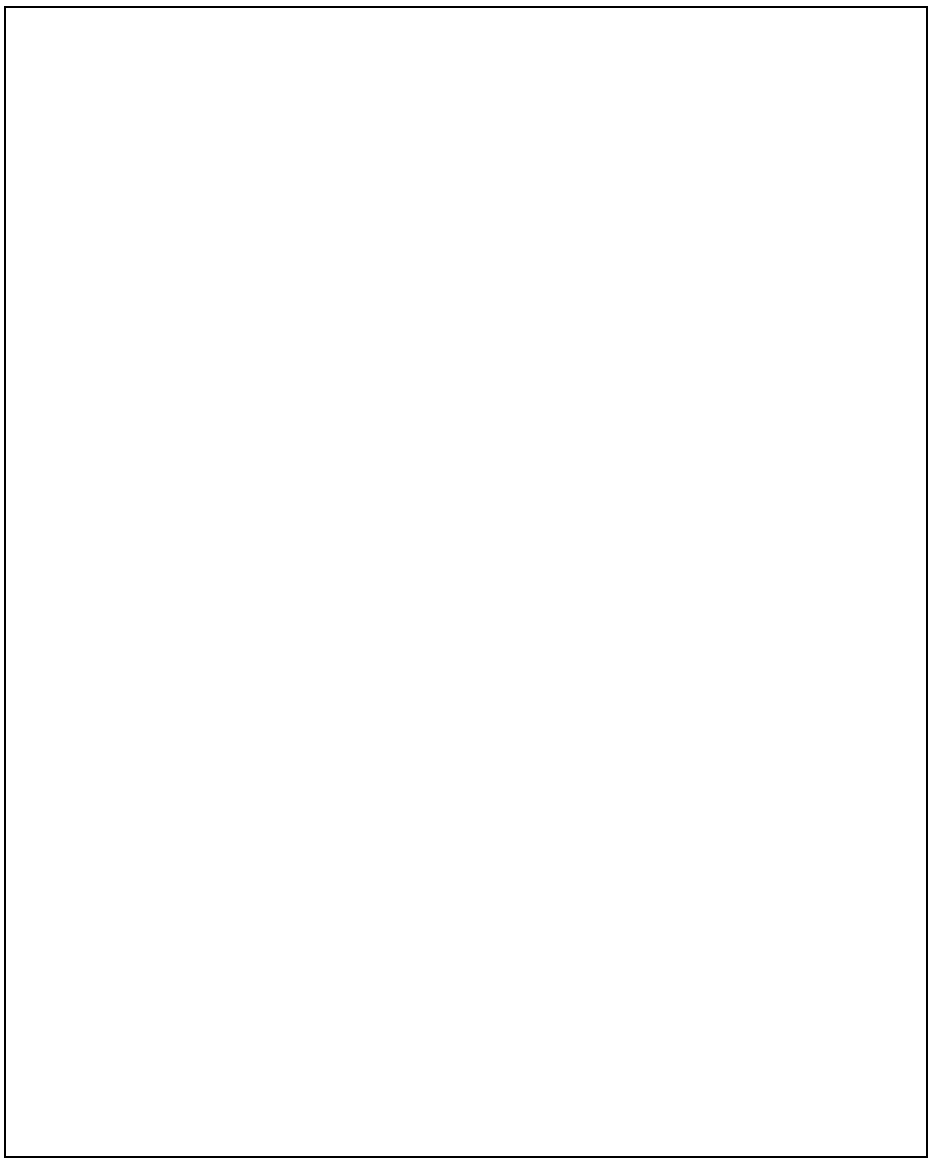
Some GHB information is provided on some dance-related websites such as inthemix.com and www.erowid.org. ACON has developed a program of work to address GHB-related problems in the GLBT community. The ACON program is based on

demand reduction as well as harm reduction principles. It is multifaceted and includes the following elements:

- A social marketing campaign, which addresses the possible harms associated with use. The campaign is distributed through GLBT licensed venues and dance parties (see Figure 15).
- An information brochure, which provides more detailed information on GHB and the harms associated with use (see Figure 16);
- A series of community forums to raise awareness of the issues related to GHB use.

Other strategies used to improve responses to overdose by venue operators and at events are addressed below.

Figure 15: GHB poster for sex on premises venues developed by ACON



3.1.2. Management of overdose

In almost all instances, persons who overdose on GHB will not be alone (Degenhardt et al., 2003). This is an important and invaluable factor that will aid appropriate responses to GHB overdose. It is important that if someone collapses or is unconscious, that medical attention is quickly sought. Information on the person's drug use during the night would be an important aid to appropriate medical care if someone is hospitalised, so this information should be collected if possible. Attention should be given to monitoring the person's breathing and ensuring that the person's airways are clear, since GHB (and similar drugs) depresses respiration.

The management of GHB overdose in hospital has been the subject of some debate. Some have advocated conservative approaches to the management of overdose (Caldicott and Kuhn, 2001; Li et al., 1998a). In more severe cases, intubation and ventilation may be required (Caldicott and Kuhn, 2001). Some have also argued that, for severe cases, physostigmine may be of use. Physostigmine has been used as a reversal agent for GHB and may be of assistance for severely affected patients (Caldicott and Kuhn, 2001).

As noted above, training has been provided by ACON to some venue operators and "drug rovers" to assist in the appropriate management of suspected GHB overdoses in GLBT community venues and events. This work needs to continue. Some of the training has included:

- A "Drug Rover" program which utilises a team of CPR trained volunteers who attend large GLBT dance events and look out for people who may be experiencing difficulties with the drug.
- A collaborative 'Save a Mate' project with the Australian Red Cross which trains peers in CPR so they can assist friends or community members who are at risk of overdosing.
- The provision of CPR and drug information training to staff working in GLBT licensed venues.

Figure 16: GHB overdose pamphlet developed for users by ACON

3.1.3. Treatment of dependence and withdrawal

GHB withdrawal can be dangerous and potentially life threatening (McDonough et al., 2004a), and requires medical assistance. Some of the reported treatments for withdrawal included the use of anticonvulsants to reduce agitation and the risk of seizure (McDaniel and Miotto, 2001). In severe cases of withdrawal, some have reported the successful use of barbiturates and very high dose, short-acting benzodiazepines, mood stabilisers and antipsychotics (Bowles et al., 2001; Dyer et al., 2001; McDaniel and Miotto, 2001; Schneir et al., 2001). Others have found that benzodiazepines are an effective treatment (McDonough et al., 2004a; Dyer et al., 2001; Addolorato et al., 2001; Price, 2000).

Early initiation of such pharmacological treatments appeared to be beneficial to reducing the severity and duration of symptoms (McDaniel and Miotto, 2001). For those with longer term withdrawal, close monitoring is required, particularly when high states of agitation, delirium and psychosis are present (McDaniel and Miotto, 2001). In one study, GHB withdrawal was so severe that death resulted (Dyer et al., 2001).

The literature on treatments for GHB dependence is limited. Some have advocated the use of sedative drugs to assist in the maintenance of abstinence, such as diazepam (Addolorato et al., 2001). No controlled trials have been conducted evaluating the effectiveness of different treatment approaches for GHB dependence. Psychosocial approaches involving counselling and cognitive behavioural therapy may be of use given their broad application to the treatment of dependence upon other drug types.

There are no national data published on the number of persons in Australia who have received treatment primarily for GHB dependence. Data obtained from the NSW Minimum Dataset (courtesy of NSW Health) showed that one treatment episode has been recorded since 2001 (Degenhardt et al., 2005). It is important to note that low numbers receiving treatment do not indicate a lack of treatment need.

3.2. Crystal methamphetamine

3.2.1. Education and harm reduction

The general principles of social marketing, education and harm reduction have been discussed above. Social marketing campaigns addressing crystal methamphetamine and gay men have often, primarily in the United States, focused on sexual risk taking and its possible links to HIV transmission. In the United States, some alarmist approaches to this issue have been developed. A common approach in the United States has involved the use of a fear-based approach, with campaigns titled "Meth = Death" and "Buy Meth get HIV for Free" being developed in New York City (see http://www.lifeormeth.com/ and the "Crystal Mess" campaign developed by the San Francisco Department of Health, which involved poster materials in the Muni train station with slogans such as "Addiction is no party" and "Crystal plays more tricks than you can" (www.crystalmess.net)).

Although no data evaluating the effectiveness of these campaigns in reducing use or harms were found in the current review, the "Crystal Mess" campaign received a mixed community response. A media article released in San Francisco described people plastering the poster boards with comments like "don't shame me", "not a villain not a victim" and "no love, no compassion, no pride" (Anonymous, 2004b). The approach appeared more popular with some self-identified ex-users, with one reported as saying "It's not really a negative message" and another saying that looking at the campaign was like "looking in the mirror". This mixed pattern of responses is consistent with the possibility that fear-based approaches may reinforce the opinions of non-users, and alienate current users.

Apart from the possibility of creating a divisive message within the GLBT community, another concern with this approach is that the responsibility for sexual risk behaviours is given to the drug and not the individual. As long as campaigns continue to "blame" crystal methamphetamine (or any other drug use) for peoples' risk taking behaviour, individuals may consider such drug use as a justification for their behaviour without taking responsibility for it. Previous research suggesting that persons who reported using crystal meth during sex were just as likely to engage in UAIC when they were *not* using crystal meth during sex (Halkitis et al., 2005b) suggests that, although drug use may

lessen inhibitions for some people, such users may be likely to take risks even when not under the influence of crystal meth (or any other drug, for that matter).

The social and psychological effects of heavy crystal methamphetamine use need to be addressed. These include the physical consequences of using crystal meth (either after "binges", or following heavy, regular use); issues surrounding dependent use; and the social, financial and occupational consequences of heavy use.

The Seattle Counselling Service has produced peer-developed educational resources addressing some of the other health issues associated with crystal methamphetamine use. The website www.crystalneon.org has comprehensive harm reduction information for users that is factual, non-judgemental and non-alarmist. They also have some useful print information resources addressing health issues such as:

- Mixing Viagra, "poppers" and crystal meth;
- General health and well-being issues such as eating, drinking and sleeping;
- Dental care;
- Mental health; and
- 'Amphetazine', a magazine for gay/bisexual crystal meth injectors that addresses a whole range of health issues.

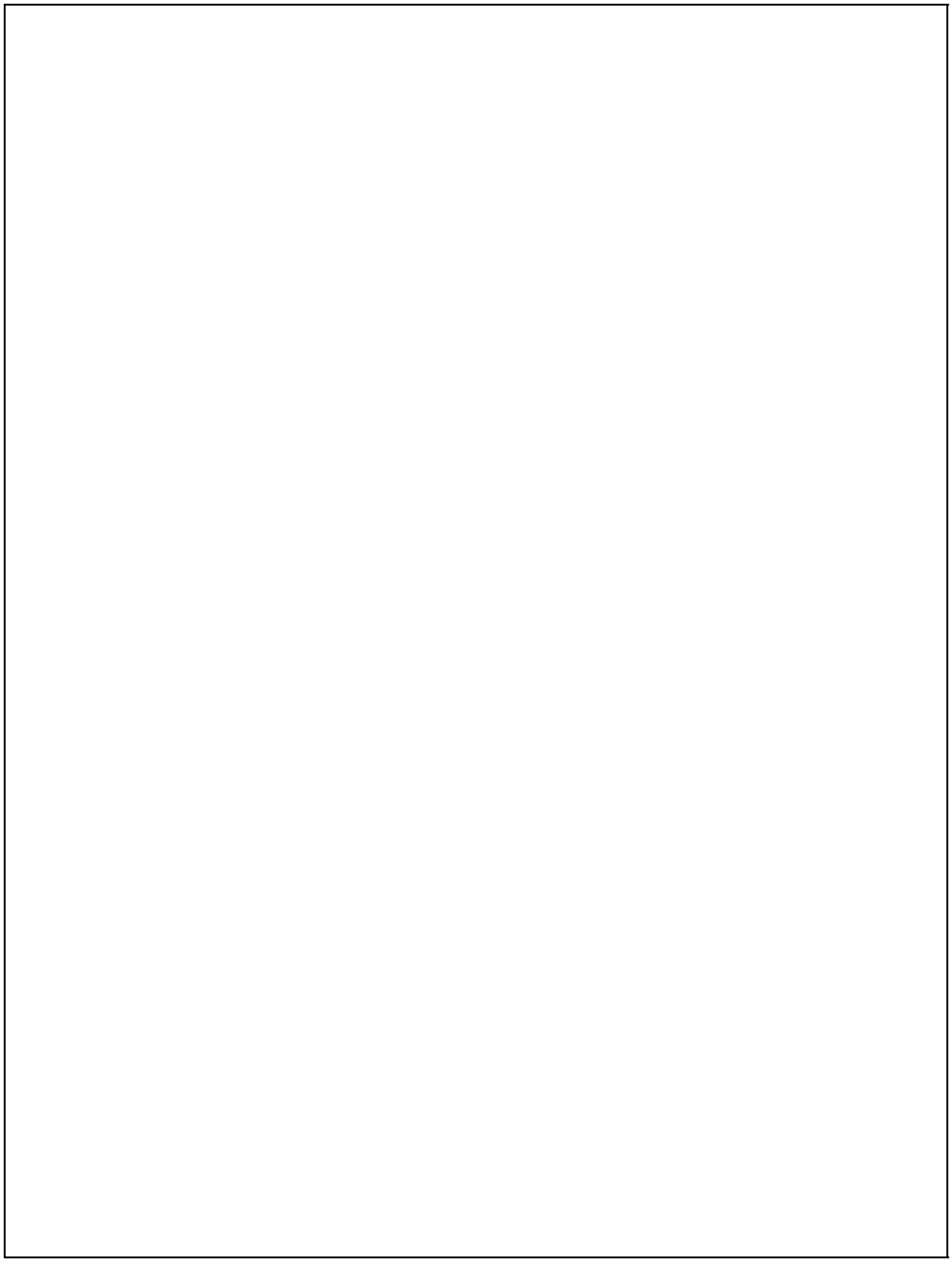
The Stonewall project based in San Francisco also developed a comprehensive website addressing this issue and provides information on issues ranging from harm reduction to quitting information. The website can be found at www.tweaker.org. Other approaches, such as the "Crystal Clear" campaign developed by the STOP AIDS Project in San Francisco and the Crystal information cards developed by the AIDS Committee of Toronto, have provided harm reduction information to users, including information on reducing or quitting altogether.

Due to the increasing rates of crystal meth use in the GLBT community and the likelihood that problematic use will also increase as a result, a comprehensive program needs to include both demand reduction and harm reduction activities. ACON has begun to develop a comprehensive program addressing problems related to the use of crystal meth.

Activities to date include:

- Increasing the capacity of the ACON Needle and Syringe Program to provide more effective brief interventions and referral to treatment programs;
- A range of community information forums for different sections of the GLBT community;
- A print media campaign addressing crystal methamphetamine and sexual risk taking (see Figure 17);

Figure 17: Crystal meth poster developed by ACON



- A more comprehensive information resource has also been developed which addresses other health issues associated with crystal methamphetamine and targets the broader GLBT community.

There are still a number of information gaps for crystal methamphetamine users in NSW. Recommendations on how these gaps should be filled will be provided in the 'Implications and future directions' section of this report.

3.2.2. Management of psychosis

Early intervention in methamphetamine psychosis is important. It is often the case that the users themselves do not recognise the early signs of psychosis. Some resources have been developed by organisations such as NDARC (e.g. Topp et al., 2001) that are specifically targeted towards methamphetamine users. These may be useful in making users (and those close to them) more aware of the early signs of methamphetamine psychosis.

Once methamphetamine psychosis has developed, the typical protocol involves the administration of antipsychotic drugs (such as risperidone or olanzapine), sedative drugs such as benzodiazepines, or perhaps a combination of the two (Baker et al., 2004; Dawe and McKetin., 2004; Misra and Kofoed, 1997; Misra et al., 2000).

Interviews with KEs and the discussions during forums suggested that there is currently limited understanding of methamphetamine psychosis and the appropriate ways in which this needs to be addressed.

3.2.3. Treatment of dependence

A wide range of interventions have been examined for the treatment of methamphetamine dependence (Rawson et al., 2002). There is no strong evidence of the effectiveness of pharmacotherapies for the treatment of methamphetamine dependence (Baker et al., 2004). Current clinical research at NDARC is, however, examining the effectiveness of modafinil as a possible pharmacotherapy (see Shearer and Gowing, 2004 and also http://ndarc.med.unsw.edu.au/ndarc.nsf/website/Research).

The literature on methamphetamine dependence suggests that behavioural interventions are most appropriate (Rawson et al., 2002). The approaches that appear to have the greatest promise include cognitive behavioural therapy and contingency management. Manualised resources for such interventions have been developed by researchers in Australia and the United States (Rawson et al., 2004; Baker et al., 2004). Furthermore, guidelines have been developed for general practitioners to identify, assess and respond to psychostimulant problems among their patients (Jenner et al., 2004). Such resources should be promoted to service providers as they represent the synthesis of current "best practice" in this area.

Successful reduction of drug use among drug dependent persons has been found to be associated with reductions in HIV risk behaviours (Shoptaw and Frosch, 2000). Presumably, HIV medication adherence might also improve if drug use problems were reduced. It has been acknowledged that successful treatment of drug dependence (that includes, *but is not limited to*, crystal meth) will lead to a concomitant reduction in HIV risk behaviours among drug dependent persons (Patterson and Semple, 2003; Reback et al., 2004). In a review of the issues (Shoptaw and Frosch, 2000), three policy recommendations were made with respect to the treatment of drug dependence among homosexually active men:

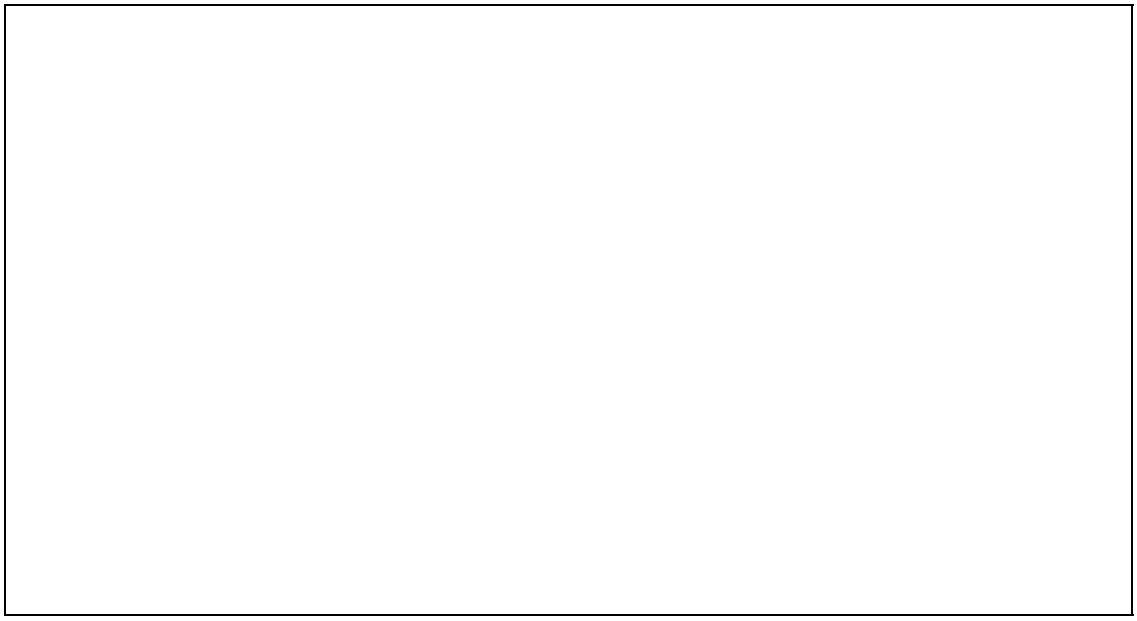
1. That treatment for drug dependence simultaneously addresses *both* drug use and high risk sex behaviours;
2. That drug treatment be explicitly recognised as HIV prevention;
3. That drug counsellors in generalist treatment settings be educated about the specific cultural and sexual risk issues among this population (Shoptaw and Frosch, 2000).

Current treatment provision in NSW

Presently, there are a number of options in NSW for problematic crystal methamphetamine users and/or those close to them. These include counselling services at ACON, SMART (Self Management and Recovery Training), Crystal Meth Anonymous (CMA), Family Drug Support (FDS) telephone line, the Alcohol and Drug Information Service (ADIS) helpline, Narcotics Anonymous (NA), and specific drug rehabilitation services such as Odyssey House. Numbers and contacts for these are listed in Appendix B.

The KE counsellors and psychologists interviewed for this study noted increases in numbers seeking treatment for crystal meth dependence. Data from the NSW Minimum Dataset were completely consistent with these reports. Since July 2000, there has been a steady increase in the number of episodes for methamphetamine dependence, from 216 in July 2000, to 386 in June 2003 (Figure 18).

Figure 18: Number of amphetamine treatment episodes, NSW July 2000-June 2003



Source: AODTS-NMDS, NSW Health

Although a range of treatment options exists to address problematic crystal meth use, many reported that a number of barriers existed. These largely referred to the limited range of treatment modalities, the need for culturally appropriate interventions, limited support for those close to users, and the concentration of services within a limited geographic area.

Abstinence oriented services such as NA were thought to be appropriate for some users, but some reported that many crystal meth users did not see these (often heroin oriented) groups as being relevant to them. Furthermore, many users did not necessarily consider abstinence their primary goal (one KE reported that 90% of users at their counselling service did not have abstinence as a goal). Providing a range of clinical goals that included reduced or moderated use, as well as a range of treatment modalities, was considered important. KEs and users both reported that utilising peer group methods (targeted towards crystal meth users) would be potentially useful.

Some KE reported that they felt taking a break rather than reducing use was a better way to frame options in the short term so people could see the benefits of not using. Ceasing use can have a significant impact on people's social networks, as they might need to cease contact with people who may trigger reuse. Some work needs to be done in assisting people to develop other support structures if they need to withdraw from existing

networks. We need to provide social support programs to replace people using crystal meth to reduce isolation.

Many reported that there was a need for more sources of support for family, friends and partners of users, since many existing services were oriented towards users, and the options were currently limited for those close to users. Calls were made for regularly updated referral information for treatment and counselling services.

The ACON Counselling team is currently funded through the NSW Health HIV/AIDS program, which obviously limits its capacity to provide counselling for alcohol or other drug problems. The majority of GLBT clients who attend for alcohol or other drug counselling are referred on to other (sometimes less culturally sensitive) programs, as priority must be given to clients who are infected with or affected by HIV/AIDS.

It is difficult to estimate the number of clients who are referred on due to the fact that clients rarely discuss AOD issues during the intake process. Such issues are usually identified during the counselling process, when drug use appears as an underlying issue that is contributing to the presenting problem. The ACON counselling team estimates that 30% of clients that attend an intake interview want counselling to manage their drug use. The majority of these clients are referred to other programs, unless they are HIV positive. It is also estimated that in the current caseload of counselling clients at ACON, 25% are having difficulty managing their drug use.

ACON has begun a process of relationship building with treatment programs such as St Vincent's Drug and Alcohol service and Crystal Meth Anonymous. Further work needs to be done to establish and maintain good links with such services.

4. IMPLICATIONS AND FUTURE DIRECTIONS

This rapid assessment has suggested that significant minorities of the GLBT community are using both crystal meth and GHB. The recent trends in the use of these drugs appear to be different, however, with an apparent stabilisation of GHB use, and a continued increase in crystal meth use.

The risks associated with GHB use appear to be largely related to the acute effects of the drug, with overdose being a prominent risk. There is some evidence to suggest that GHB may also be used during sex among some homosexually active men, and this needs to be investigated further. The evidence available suggests that GHB use is stabilising in the GLBT community, but it is important to consider the potential influence of the stigmatised nature of the drug. It may be the case that a) people do not disclose their use of the drug (even to their peers), b) use is becoming more concentrated in private homes, and/or c) fewer harms are occurring after use. More work needs to be conducted to examine these possibilities.

The evidence collected to date suggests that crystal meth use continues to increase in the GLBT community, as it is in the heterosexual community. Problems related to problematic or dependent use of this drug were consistently reported as of concern. Problems related to the development of psychosis and general psychosocial problems related to heavy drug use were also problems of concern. Given that crystal meth use appears to be increasing in the GLBT community, it is likely that problematic use will also increase. This is likely to have implications for clinicians and service providers in the GLBT community, who may see an increase in the number of persons with problematic crystal meth use.

Although significant community concern has been focused upon the use of crystal meth among homosexually active men, probably driven by its association with risky sexual behaviours, it is important to note that in both sentinel samples of drug users (e.g. those recruited for the PDI) and at the community forums held by ACON, crystal meth use appears to be at similar levels among lesbian and bisexual women. Women may not face the same level of risk associated with sexual risk practices, but the issues related to

problematic use of the drug – methamphetamine induced psychosis, dependence, and the concomitant social, psychological, financial and other problems – are issues of concern to the same extent. Further work needs to focus on this group.

As noted in the beginning of this report, no data specifically on the transgender community could be collected for this report. This gap in current knowledge needs to be addressed.

With respect to homosexually active men, the association between crystal meth use and sexual risk is an issue of concern, but it should not be inferred as a simple causal association. It is unlikely that crystal meth in some way impels users to engage in unsafe sex. Previous research strongly suggests that many people who use crystal meth and take risks during sex do so when they are *not* taking crystal meth; furthermore, not all people who take crystal meth during sex engage in risks. However, it is possible that crystal meth use may be used to facilitate sexual encounters and/or risk. The increase in crystal meth use in NSW is occurring against a backdrop of increasing STI notifications, changing conceptions of HIV, and increased UAIC that may reflect changes in perceptions of risk (van de Ven et al., 2004).

There is no simple association between crystal meth use (or any other drug use) and risky sexual behaviours. The multitude of factors – biological, individual, and community-level – need to be considered simultaneously. Further work is required to examine these factors, and interventions need to be tailored accordingly.

Although possible links between crystal meth and sexual risk taking is an issue, the other health and social problems associated with use were still the major concern for KE and community members in this rapid assessment. ACON needs to continue to address drug use and sexual risk taking in its HIV/AIDS prevention program but it also needs to build its alcohol and other drugs program to address the other significant health issues related to drug use. Issues such as overdose, dental health and mental health are difficult to address in its current funding agreement/s, and programs to address the other psychosocial issues – such as relationships, finances, housing and employment – also need to be a priority. Any new program addressing crystal meth and GHB use in the GLBT community needs to address both demand reduction and harm reduction.

Although this rapid assessment was focused upon GHB and crystal meth use, consideration of the problems related to these drugs needs to be couched within a broader programme of work on alcohol and other drugs. This is especially important due to the strong evidence that polydrug use in the GLBT community is extremely common. This refers to understanding risk behaviours associated with the use of drugs (because all drug use is likely to be associated with some risk) as well as the problematic use of drugs. Harm reduction and treatment efforts, although appropriately focused, need also to acknowledge the problems associated with the broader range of drugs being used within the GLBT community.

4.1. Research

4.1.1. Epidemiology of use

More detailed research is needed to examine the epidemiology of use of both GHB and crystal meth in the GLBT community. Current data from drug early warning systems and surveys with the GLBT community provide only superficial indications of use and related harm.

There is currently limited data on patterns of use and harm related to these drugs, particularly for bisexual or lesbian women, and in the transgender community. This needs to be addressed.

Although GHB use indicators appear to be suggestive of a stabilisation of use, the stigmatised nature of the drug may mean that routine surveys do not elicit accurate data on the level of use of this drug. There is *no* behavioural surveillance within gay male periodic surveys of the use of GHB. This information gap needs to be addressed.

It seems possible that GHB use may be concentrated among some sub-populations of the GLBT community, and future research might examine this in greater depth. Better surveillance is required to monitor adverse events related to GHB, such as the number of GHB-related overdoses seen by emergency departments.

Limited data on crystal meth use is collected in behavioural surveillance data on homosexually active men and women, and greater detail would be useful.

4.1.2. Related harms

More detailed research examining the predictors of problematic or dependent use of GHB and crystal meth is required.

There is a need for careful and detailed consideration of the relationship between drug use and sexual practices in the GLBT community. This includes sex behaviours during use; to examine the potential for such potent forms of methamphetamine to increase sexual arousal and sustain sexual activity; and to examine increased risk of HIV and other blood-borne virus transmission. More research is needed to understand the relationship between risk perception, motivations for use and motivations for risky sexual behaviour and their links with crystal methamphetamine use (and other drug use). There needs to be a careful examination of the complex interplay of factors associated with both drug use and sexual risk behaviours, which may be concentrated among some sub-populations within the community.

Greater information needs to be gathered on the use and potential harms associated with crystal meth use by HIV positive persons. A better understanding of the motivations for crystal meth use among this population is required. US research has suggested that particular motivations may exist (Semple et al., 2002a) and research examining motivations for methamphetamine use among HIV positive men in NSW would be important for tailoring harm reduction initiatives.

4.2. Demand reduction and harm reduction

As a general comment, both KE and community forum participants voiced the view that there needed to be greater promotion of celebratory and social occasions that did not revolve around alcohol and other drug use, to counteract the idea that drug use is normative in the community. This could involve health promotion and healthy lifestyle campaigns that give greater attention to activities that do not revolve around drug use.

4.2.1. GHB

The apparent risks of GHB overdose have been the focus of community concern in Australia as they have in countries such as the UK and the US. Given limited evidence of the effectiveness of fear-based campaigns, it seems most appropriate that campaigns regarding GHB provide evidence-based information about the risks, avoid pejorative or divisive language, and in this instance emphasise appropriate responses by non-users as well as users of the drug, should someone overdose. Providing harm reduction messages to GHB users proves to be challenging, as a slight variance in dosing can be the difference between experiencing the positive effects of the drug and overdose. This is not to say, however, that valid harm reduction messages do not exist. Information on dosing, indicators of overdose and seeking immediate assistance if a problem occurs should continue to be promoted.

Social marketing campaigns have a limited shelf life. Ongoing campaign development addressing this issue is important - even if it addresses similar issues. It is important that the value of recent education campaigns addressing the risk of overdose among GHB users is reinforced regularly. Social marketing campaigns need to be credible for users – and acknowledge the important fact that GHB use, like any other drug use, occurs primarily because of the pleasurable effects of the drug.

The finding (in 2001) that some GHB users did not see overdose as a risky event (Degenhardt et al., 2003) needs to be examined again. The risks associated with overdose (both at home and in public) need to be communicated to users as well as the community in general. Inaccurate perceptions of risk need to be considered in any intervention aimed at minimising the harms associated with GHB.

Since much GHB use occurs at home, and previous research suggested that many overdoses occur at home, appropriate harm reduction campaigns need to address the risks associated with using at home. The fact that people who report GHB overdose at home have almost always been in the company of another person suggests that a useful strategy would be to educate peers and users about the signs of overdose and what to do if these signs begin to appear.

4.2.2. Crystal methamphetamine

A number of areas appear to be important with respect to crystal meth use in the GLBT community. First, there was general agreement that more information needed to be available for users, those close to them, as well as frontline workers about the effects of crystal meth, in the short and longer term. The community forums highlighted the fact that even experienced users had very limited knowledge about the drug including the direct effects, long term effects and the potential risks associated with other issues of concern in the GLBT community such as sexual risk behaviour and HIV treatment.

Second, there was a consistent view that more information needed to be made available about how to identify and respond to early signs of problematic crystal meth use and methamphetamine induced psychosis. Third, more information needs to be disseminated about the options available to users and those close to them to address problematic use once it has developed. Information for reducing use or quitting altogether must be prioritised and must also be provided in a culturally appropriate and non-judgemental way. This may need to occur through new programs developed by ACON as well as developing stronger partnerships with other service providers to assist them in providing appropriate information to the GLBT community.

It is likely that sexual risk behaviours are concentrated among some sub-populations of gay men. For example, a high proportion of gay men are likely to use the internet for the purposes of establishing social and sexual relationships (Hull et al., 2003), and previous research suggesting that men who seek sexual partners on internet websites engage in higher rates of crystal meth use, and sexual risk behaviours, indicates providing harm and demand reduction information using this medium may be of use (Van de Ven et al., 2004). It seems important to consider ways in which internet sites may be used to disseminate information about sexual risk and its consequences, since men may be open

to receiving such information from these sites (Murphy et al., 2004). Such information needs to be framed and delivered in an appropriate manner that is considered relevant.

There are particular issues regarding HIV positive people that need further investigation and educational responses. Although the majority of issues related to crystal meth use are common to any user of the drug, the literature review identified some specific areas of concern for the health of HIV positive people. These concerns include different motivations for use, unplanned non adherence to HIV medication and progression of HIV disease such as the onset of HIV-related dementia.

The increase in crystal meth use has occurred along side an almost parallel increase in the use of Viagra. Although it can't be assumed that these two are directly related, it does suggest that gay men may be using Viagra to counteract the effects of 'crystal dick'. Information should be provided on mixing crystal meth with Viagra and other drugs such as amyl nitrate and the harms associated with this.

4.3. Capacity and skills increase for health professionals

Building expertise in alcohol and other drug (AOD)
issues for counsellors and psychologists working in the HIV sector is an important issue, but difficult given many competing priorities for skills development. Some gaps for mental health workers include: pharmacology of the drug, identifying problematic use, long term cognitive effects of use, managing comorbid drug use and mental health problems, and the effects upon HIV positive people. There appears to be a clear need for comprehensive education for such workers on these issues.

KE interviewed for the study felt that provision of appropriate training in brief interventions for drug and alcohol problems would be of use for staff in the HIV sector. In line with previous policy recommendations (Shoptaw and Frosch, 2000), it may be of use to consider a specialised AOD team at ACON, who are aware of the cultural sensitivities of ACON clients. At the moment, the majority of clients who present with drug use problems are referred out for counselling although they are seen for other issues underlying their drug use. An increase in resources would allow counsellors to see clients

for longer than 6 weeks, which is the current maximum number of sessions, to allow staff greater time to address the multiple issues that their clients may be presenting with.

The issue of GLBT cultural sensitivity training for generalist AOD services also needs to be addressed. A training program addressing this issue should be developed and implemented throughout metropolitan Sydney and especially regional NSW where the lack of GLBT sensitivity may be more prevalent.

4.4. Treatment options

Several issues were raised about treatment for problematic drug use in the GLBT community. First, it seemed apparent that there needs to be better dissemination of available treatment options for persons experiencing problems related to their drug use. Second, there needed to be better promotion of available support systems for the families and friends of persons who have developed problematic drug use.

Third, more work needs to be carried out to examine effective treatment approaches for problematic psychostimulant use. The most appropriate treatment options for both GHB and crystal meth use appear to be cognitive behavioural interventions, counselling and peer support.

Finally, consideration needs to be given to certain sub-populations who may be experiencing problems related to their drug use. This includes persons suffering from comorbid mental health problems. It also includes HIV positive persons with concomitant drug use problems.

5. SUMMARY AND CONCLUSIONS

This rapid assessment examined trends in the use and harm related to GHB and crystal meth use in the GLBT community in NSW. Although the report has focused upon these two drugs in particular, many users will be using a range of other drugs, separately from and concurrent with these drugs. Consideration of the use of both GHB and crystal meth needs to be made with this context in mind. This rapid assessment clearly indicated that there is much that remains unknown in terms of patterns of use, predictors of problematic use, and the associations with a range of harms. Further work needs to consider these information gaps.

The use of crystal meth has increased in recent years in the GLBT community in NSW, consistent with changes seen in the heterosexual community. These changes have occurred as the availability of potent forms of methamphetamine has increased markedly. Although many people use crystal meth without experiencing significant problems, a minority of users will develop problems controlling their use. It is reasonable to assume that, if the extent of use continues at the same or increasing levels, we may see an increase in the number of people from the GLBT community who experience problems controlling their use. Appropriate responses to these problems need to be disseminated to users and those close to them, and more work needs to be carried out to give health professionals a greater capacity to respond to the needs of their clients, which include not only problematic drug use, but also the concomitant social, economic, and mental health issues, and effects upon treatment adherence among HIV positive persons.

The available evidence on the use of GHB suggests that it has stabilised; however, there is evidence that a substantial proportion of users is using GHB at home. The risks associated with overdose, and appropriate responses to overdose, need to be communicated to users. Given that many regular ecstasy users who report using GHB say that they do so in nightclubs, there is a continued need to work with owners and managers of such venues to ensure that staff respond to suspected GHB-related overdoses in a swift and appropriate manner.

Continued efforts to have a proactive strategy to reduce the harms related to drug use in the GLBT community by agencies such as ACON need to occur. These efforts should include demand and harm reduction initiatives, increased promotion of existing treatment options, and collaboration between agencies with differing expertise and understanding of the issues that might uniquely face the GLBT community.

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APPENDIX A: FORUMS ADDRESSING CRYSTAL METH

The following list contains the forums run by ACON, with the collaboration and input of a range of researchers, service providers, professionals and user representatives from September 2004 to June 2005 to address the issue of crystal methamphetamine among the GLBT community.

- September 29th 2004: Community forum
- November 3rd 2004: Community forum II
- November 4th 2004: Service Providers and General Practitioners forum
- March 30th, 2005: Crystal meth users' forum
- April 13th 2005: Women and crystal forum
- May 19th 2005: Family and Friends forum
- June 9th 2005: Leather men and crystal forum

Notes from the community forums, the service providers' forum, and the family and friends forum are summarised below.

September 29th 2004: Community forum

General issues

- The gay and lesbian community already has the knowledge to deal with drug issues. We have done it with other drugs. We also have the capacity.
- We should not demonise the drug or the people using it. Prevention and health promotion programs should focus on behaviours.
- Members of the lesbian community use crystal meth at comparable rates and have similar problems with that use that gay men do.
- There are a number of characteristics of crystal meth that have meant that it's had a large impact on the gay and lesbian community. These include:
  - It is very pure,
  - Its modes of use are both 'rewarding' and accessible.
- Use can lead to dependence. Dependence in turn can possibly increase risk behaviour.

Recovery and treatment

- Research has been done that indicates that medical treatment for crystal meth dependence doesn't work; however, there is a range of treatment options available.
- Some people have successfully stopped their own use. One participant talked about moving cities to take himself away from the patterns of use that he was falling into.
- There are a number of things a user can do to reduce harm (see Dr Montebello's presentation).
- There were many personal accounts of participants successfully stopping their use by attending NA groups or residential community treatment.
- If an individual is experiencing other issues like depression then identifying these issues will increase the chances of the person successfully dealing with their crystal meth use.
- Different strategies work for different people in different situations. ACON needs to investigate these strategies further and to advocate for increased levels of service. ACON should also investigate the possibility of co-hosting, promoting or facilitating some of them.

- Service providers, particularly GPs but also including counsellors etc, played an important part in the stories of many of the participants.

The role of friends

- Almost all participants who spoke in the forum talked at some point about how important friends were in their own stories. Three areas emerged where friends appeared to be especially important:
  1. Identifying that someone was experiencing problems;
  2. Intervening to provide help;
  3. Providing ongoing support.
- Friends were also identified as being vital in supporting the support person.
- Self care for the friends or support people of someone having problems is essential.
- The importance of family was talked about by fewer participants but was seen as no less important in providing support.
- When friends try to 'pressure' others to intervene in someone's use it causes fractures in the friendship network.

The role of ACON

- There is an opportunity for ACON to develop a resource that aids friends in providing help and support, including what someone can do to help and the strategies they should avoid. ACON should also consider a process that encourages the community to talk about this issue.
- People experiencing problems with crystal meth need encouragement and support. They need this from friends, family, and community services such as ACON. We need to ensure that health promotion initiatives fit into this model.
- Peer support is very important. Isolation is very common and ACON should try to reduce this. Personal stories are one way to help break down isolation.

Users' perspective

- It was friends pointing out how some people looked that made users realise that they had a problem. Most of the time users didn't realise there was a problem

- It is difficult to know where to get help from; it's hard to know and it isn't talked about.
- Some users participate in high risk behaviours, knowing what those risks are and accepting them.
- Some crystal meth users had long term drug and alcohol dependence and swapped from speed to alcohol then from alcohol to crystal meth.
- Psychotic episodes were common, including episodes such as sitting at home alone but believing they were at a party with friends.
- Paranoia, aggression, violence and anxiety were common experiences.
- A useful strategy for one user was friends working a roster to provide 24-hour care. She says without her friends 'I wouldn't be alive today.' She also talked about a trusted GP who was very helpful.
- Removing themselves from social situations and friends that may trigger use was a useful strategy for some. Some users went as far as moving cities to avoid the triggers that make them use.
- One user told the forum that she doesn't remember the first six-months of her recovery process. Her family took her back to New Zealand.
- Due to extensive long term use, one user still takes anti-psychotic medications and believes that she will need to for the rest of her life.
- Attendance at NA groups can give users the tools to stop using.

November 3rd 2004: Community forum II

There are a number of characteristics of crystal meth that have meant that it's had a large impact on our community. These include: it is very pure, and its modes of use are both 'rewarding' and accessible. These two points mean that crystal meth use can lead to dependence. Dependence in turn can possibly increase risk behaviour.

Lesbian use

Members of the lesbian community use crystal at comparable rates and have similar problems with that use that gay men do. This point isn't discussed in the community and not much attention is given to it.

Recovery and treatment

- Research has been done that indicates that medical treatment for crystal meth dependence doesn't work.
- Some people have successfully stopped their own use. One participant talked about moving cities to take himself away from the patterns of use that he was falling into.
- There were many personal accounts of participants successfully stopping their use by attending NA groups or residential community treatment.
- If an individual is experiencing other issues like depression then identifying these issues will increase the chances of the person successfully dealing with their crystal meth use.
- What this says is that different strategies work for different people in different situations. ACON needs to investigate these strategies further and to advocate for increased levels of service. We can also investigate the possibility of co-hosting, promoting or facilitating some of them.
- Service providers, particularly GPs but also including counsellors etc, played an important part in the stories of many of the participants.

The role of friends

Rene talked about how to identify when someone was experiencing problems with their crystal meth use and gave a range of strategies for supporting them.

Almost all participants who spoke in the forum talked at some point about how important friends were in their own stories. Three areas emerged where friends appeared to be especially important:

1. Identifying that someone was experiencing problems;
2. Intervening to provide help;
3. Providing ongoing support.

- Friends were also identified as being vital in supporting the person.
- Rene talked about the importance of self care for the friends or support people of someone having problems.
- The importance of family was talked about by fewer participants but was seen as no less important in providing support.
- Angel talked about how her friends don't talk with each other about, or may not even know about, what strategies they can use for helping others.

ACON's role

- There is room here for ACON to develop a resource that aids friends in providing help and support, including what one can, and what one should, avoid doing. We could also look at a resource that encourages the community to talk about this issue.
- People experiencing problems with crystal meth need encouragement and support. They need this from friends, family, and the community. We need to ensure that health promotion initiatives fit into this model.
- Peer support is very important. Isolation is very common and we should try to reduce this. Personal stories are one way to help break down isolation.

Other points

- Our community already has the knowledge to deal with drug issues. We have done it with other drugs. We also have the capacity. We should use that model.
- We should not demonise the drug or the people using it. We should focus on behaviours.
- Mark Montebello talked about a range of treatment options.

November 4th 2004: Service Providers and General Practitioners forum

The following evening, ACON held another forum specifically for service providers and general practitioners. Approximately 60 service providers and general practitioners attended the forum. The same presentations as forum 2 were given to the audience and a facilitated discussion occurred afterwards. Following is a list of the key themes and issues that arose from that discussion.

- There is currently a range of services available to the GLBT community to assist with amphetamine use, although they are generally inner-city based. Better promotion of these services should be a priority.
- Despite the religious approach to NA, this service was popular and assisted many users in reducing or ceasing their drug use.
- Generalist counsellors are seeing an increasing number of GLBT clients with drug use as the presenting issue. This workforce needs training to develop a capacity to appropriately respond.
- There is a lack of funding and resources for organisations such as ACON to provide AOD counselling if it is not related to HIV/AIDS.
- ACON should develop partnerships with groups like SMART to run specific gay men's groups out of the ACON office.
- There is a lack of print resource available to people who want to reduce or cease their use.
- For some people abstinence is the only possible solution to their problematic drug use.
- There are specific health and wellbeing issues for PLWH/A (People Living With HIV/AIDS) who use amphetamines. This needs to be addressed.

May 19th 2005: Family and Friends forum

Simple implementation of communication skills works well. Keep own physical and emotional wellbeing in mind, have a life, don't become obsessed, don't give up hope, don't stop loving, don't give up on the person.

Questions:

If you are feeling helpless, how do you help?

- The person often still wants to use, but will still be ambivalent about their use.
- If the friend or family comes down heavily on the give up and stop approach, it will push the person in the other direction. This is not reverse psychology.
- A person will then often say they still enjoy using.
- Leave them alone but still be there with the support.
- It's hard to see things from the user's perspective at this time.
- If they are in the process of being ambivalent, relapse is part of the process: you have to accept this.
- Stop focusing on the drug user. Talk about your own issues, get support from others in a similar situation. You might not be able to do anything about the user, but you CAN do something about YOU.
- Change thinking about relapse: even if someone is still using, their thinking may change; if they relapse, they may never relapse to happy user, just to use.
- Speaking about what they like about it is important, especially in the context of relapse (why they relapsed).

What if the person doesn't want to tell you what they've been doing?

(a partner?)

- You have choices, a partner is in a different position to a parent or friend: boundaries are different, you have to come first!
- Separate the drugs from the behaviour.
- The process is about thinking about the consequences; pick the option that is easier to live with out of those things; there's no right or wrong; a decision is right at the time.

Are there stats on people quitting?

- Treatment options are limited, attitudes to drugs in the gay community are not helping, it's like drink-driving was years ago (the only danger is getting caught).
- Also discussion about drugs is very regulated in the public domain.
- Lack of treatment options is a problem.

Methadone treatment regulates the desire to use heroin, to the point of being on an even keel. With crystal meth, if someone has become psychotic, is a return to 'normal' use to stay on an even keel possible?

- A lot of use/relapse is situational, based on stressors: some treatments works for some and not for others.

Getting information out into the public domain: how to do this?

- A lot of work was done to get people to support dosing* and now that's down the toilet with sniffer dogs (*meaning not taking all the drug at once, pacing yourself, especially if out socialising).
- Need to keep getting credible information made by people involved in use, especially peer education.
- People accessing NSPs can talk to staff, or go to NUAA (NSW Users and AIDS Association) to ask questions. There is too much emphasis placed on print resources.

APPENDIX B – CONTACTS AND WEB LINKS

Agencies

Telephone Crisis and Drug Information Lines	
AIDS Council of New South Wales (ACON)	9206 2000
Alcohol and Drug Information Services (ADIS)	9361 8000 1800 422 599 (outside metro)
AIDS Hotline	9391 9345 1800 651 500 (outside metro)
ARAFMI (Assoc. of Relatives & Friends of Mentally Ill)	(02) 9805 1883
Carers NSW	(02) 9280 4744
Chemist Emergency Prescription Service	(02) 9235 0333
Child Abuse Prevention Service (Ashfield)	1800 688 009 (02) 9716 8000
Child Protection Unit (Westmead)	(02) 9845 2434
D.I.S.C. (Drug Intervention Service Cabramatta)	(02) 9754 6200
DOCS Helpline	132 111
Domestic Violence Advice (24hrs)	1800 656 463
Drug Arm	1300 656 800
Family Drug Support	1300 368 186
Ethnic Specific Services	(02) 9699 3552
G-Line (gambling)	1800 633 635
Gay & Lesbian Counselling Service of New South Wales	1800 184 527
Grow (Mental Health Support)	(02) 9569 5566 1800 032 120
Grief Support Inc.	(02) 9489 6644
Health Centre For Young People	1800 816 210
Hepatitis C Info/Support Line	(02) 9332 1599 1800 803 990
Homeless Persons Information	(02) 9265 9081
Indigenous Women's Legal Contact Line	1800 639 784
Kids Helpline	1800 551 800

Kirketon Road Centre	(02) 9360 2766
Lifeline	131 114
Mental Health Helpline	(02) 9816 5688 1800 647 200
Mission Australia	(02) 9319 6211
NDARC (National Drug & Alcohol Research Centre)	(02) 9385 0333
NSW Rape Crisis Centre	1800 424 017
Oasis Youth Care Centre	(02) 9360 9000
Rape Crisis Centre	9819 6565 1800 424 017
REPIDU (Resource & Education Program for Injecting Drug Users)	Redfern (02) 9699 6188 Belmore (02) 9718 2636
Suicide Prevention (Salvo Crisis Line)	(02) 331 2000
Vietnamese Family Support	(02) 9723 0035
Translating and Interpreting Service	1300 651 500
Wayside Chapel Crisis Centre	(02) 9358 6577

Detoxification Services	
3DU - Rankin Court Treatment Centre - St Vincents Hospital (Darlinghurst)	(02) 9361 8040
Gorman House - St Vincents Hospital (Darlinghurst)	(02) 9361 8080
RPAH Detoxification Service (Camperdown)	(02) 9515 7180
Royal Prince Albert Hospital (Camperdown)	(02) 9515 7181
Corella Drug Treatment Service (Prairiewood)	(02) 9616 8800
Dunsmore House (Rooty Hill)	(02) 9881 1756
McKinnon Unit - Rozelle Hospital	(02) 9556 9245
Herbert Street Drug & Alcohol Services (St Leonards)	(02) 9906 7083
Odyssey House Community Involvement Centre (Surry Hills)	(02) 9281 5144
Langton (Sydney Hospital) (Surry Hills)	(02) 9332 8777
Herbert St Detoxification Unit (St Leonards)	(02) 9906 7083
Campbell House - Sydney City Mission (males only: City)	02) 9380 5055
Centre for Addiction Medicine (Westmead)	(02) 9840 3355
Wentworth Centre for Drug & Alcohol Medicine Ambulatory Detoxification	(02) 4734 1333

Websites and resources

Models of intervention and care for psychostimulant users (2004)

Baker, A., Lee, N.K. & Jenner, L. (Eds)

http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/health-pubhlth-publicat-document-mono51-cnt.htm

A brief cognitive behavioural intervention for regular amphetamine users – A treatment guide

Baker, A., Kay-Lambkin, F., Lee, N.K., Claire, M. & Jenner, L., (2003).

http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pubhlth-strateg-drugs-illicit-psychostimulant.htm-copy3

General practitioners' guide to managing psychostimulant use

http://www.nationaldrugstrategy.gov.au/pdf/psychostimnts_gp.pdf

ACON website: http://www.acon.org.au/

NCHSR website: http://nchsr.arts.unsw.edu.au/

NDARC website: http://ndarc.med.unsw.edu.au/ndarc.nsf