NDLERF

Characteristics and dynamics of cocaine supply and demand in Sydney and Melbourne

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Characteristics and dynamics of cocaine supply and demand in Sydney and Melbourne

James Shearer

National Drug and Alcohol Research Centre, University of New South Wales, Sydney

Jennifer Johnston

Turning Point Alcohol and Drug Centre, Melbourne

Sharlene Kaye

Paul Dillon

National Drug and Alcohol Research Centre, University of New South Wales, Sydney

Linette Collins

NSW Police

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Executive Summary

Cocaine and crack cocaine are the leading causes of illicit drug-related problems in North America and in more recent years have emerged as serious problems in Western Europe. Australia and the Asia Pacific have largely escaped this global trend and crack cocaine use remains uncommon. The market for cocaine in Australia has been small, and socially and geographically concentrated, reducing the visibility of cocaine use and 'related-harms' such as hospital admissions and user and provider arrests. Nevertheless, in recent years hundreds of kilograms of cocaine have been intercepted on boats in Australian waters, found in remote beaches on the Eastern and Western Seaboards and in Pacific Islands en route to Australia [ACC 2003]. What occurs to large cocaine shipments once they arrived in Australia has not been entirely clear.

This study set out to examine the characteristics and dynamics of cocaine supply and demand in the two largest Australian cities, Sydney and Melbourne. The main aim of the study was to describe the breadth (in terms of types of users and dealers) and the depth of the market (length of supply chains, overlap with other drug supply). The analysis was based on 165 personal interviews with cocaine users in Sydney (*n*=88) and Melbourne (*n*=77) conducted between October 2004 and January 2005. The data was supplemented with a further 133 questionnaires completed by cocaine users through an Internet-based survey over the same period (Sydney *n*=39, Melbourne *n*=94). Twenty 'for-profit' cocaine dealers were identified within the sample and they provided detailed histories of drug dealing and recent cocaine transactions. The dealer case studies appear in Appendix B.

The study replicated previous findings regarding the Australian cocaine market in so far as two distinct types of cocaine users were identified. The first were employed, well-educated, socially and economically integrated users who occasionally snorted cocaine, typically in conjunction with a range of licit and illicit drugs. High socio-economic status individuals (high income, university-educated, professionals), who are sometimes associated with cocaine use in the public mind, were a small minority within this group of young poly-drug users. Social networks were the main way that such socially integrated users were first introduced to suppliers and continued to access cocaine. Cocaine was funded through their own paid employment, with gifts or 'shouting' also commonly reported. This group mainly used cocaine in private social settings, such as homes and private parties. Ultimately this type of user reported very few cocaine-specific problems at the low, irregular levels of use identified in the study.

The second group of socially and economically marginalised users found in Sydney typically injected cocaine, often in conjunction with heroin. Marginalised injecting cocaine users in Sydney appear to be among the leading users of cocaine in Australia. The group may itself have been a result of heroin injectors shifting to cocaine injection after a prolonged period of reduced heroin availability [Topp et al. 2003]. This group tended to support their habit through government benefits, sex work and dealing drugs (i.e. cocaine, cannabis, heroin). Cocaine was purchased by this group either on the street or at dealer's houses. This group experienced most cocaine-specific harms including financial, relationship and legal problems and high levels of cocaine dependence.

The dealers interviewed were mostly male, well educated and employed, with above average incomes. Two types of cocaine dealers were identified. One type of dealer typically supplied cocaine to marginalized injecting drug users but had little involvement in supplying heroin. A second group of dealers typically supplied the socially integrated users and were also involved in the retail supply of ecstasy. No dealers reported supplying crack cocaine. Most money was made at the point of importation or when ounces or grams of cocaine were broken down and

diluted into caps for cocaine injection. Returns made by other middle level and retail dealers were reasonable but not sufficient to compensate for the risk of apprehension and potential penalties. The risk of apprehension was minimised through keeping tight control on the number and nature of customers.

The price of cocaine was similar in both Sydney and Melbourne at around $267 per gram or $50 per cap (approximately 0.1 grams) in Sydney. The price of cocaine was reported to have remained stable over the preceding six months. During this time the availability of cocaine remained stable, it was considered to be medium or high purity and was very easy to purchase. Cocaine users in Sydney generally used larger quantities of cocaine, and used it more frequently, than those in Melbourne. The estimated annual consumption of cocaine in both cities was 2,916 kilograms (see Appendix A). The Sydney market made up 87% of cocaine consumption reported by participants in this research, dominated by injecting drug users. Large-scale shipments of cocaine rapidly diffuse into the Australian market through short supply chains characterised by low levels of cutting and the relatively low mark-ups on the landed price of cocaine identified in this study. Demand among cocaine using groups is very strong as evidenced by the speed at which landed cocaine reaches end-users, the high retail prices end-users are willing to pay and the fact that the bulk of cocaine is absorbed at its first point of entry in Sydney.

The nature and structure of the Australian cocaine market presents several challenges to law enforcement. The rapid movement of landed cocaine through tight socially based networks of dealers and users is difficult to disrupt as evidenced by the small numbers of domestic seizures and arrests [ACC 2005]. The fact that cocaine is usually bought and sold in private 'rather than public locations' is a further challenge for law enforcement in policing the cocaine trade. The integration of cocaine into poly-drug supply networks built around ecstasy distribution may increase exposure to casual cocaine use among younger poly-drug users in both Sydney and Melbourne. The large-scale cocaine supply required to meet Australian demand is a trans-national enterprise and so operations at the border and beyond remain the most effective strategy to maintain the current high price and low availability that characterises Australian cocaine supply.

Chapter one: Introduction

The Australian cocaine market

Demand

At the population level, cocaine use in Australia appears to have remained stable and low in recent years. The 2001 National Drug Household Survey (NDHS) estimated that 700,000 Australians aged 14 years and older had used cocaine at some time in their life (or 4.4% of the population), with about 207,000 (or 1.3%) having used recently (in the past 12 months) (AIHW 2002a). Prevalence of reported recent use was highest in New South Wales at 1.8% (or 96,000 people), while Victoria matched the national average at 1.3% (or 51,000 people) (AIHW 2002b). Together these two states accounted for 147,000 or 71% of all Australians who reported recent cocaine use in 2001. The 2001 NDHS also showed that among recent cocaine users, 16% (or over 30,000 people) (AIHW 2002a), could be classified as regular users (frequency of use monthly or more). Although males reported more life time use of cocaine (5.3% compared to 3.5%) and more recent cocaine use (1.6% versus 1.0%), female cocaine users reported more frequent use (monthly or greater 18% versus 14.6%). The average age of first use was 23 years, later than that reported for other drugs. Recent cocaine use was highest in the 20-29 year age group (4.3%), accounting for 63% of all recent cocaine users.

One limitation of household surveys is the potential under-reporting of behaviours which are illegal or subject to social disapproval. Further, household surveys, by definition, exclude homeless and institutionalised people, which include 'hidden populations' such as injecting drug users (IDU). Given these limitations, other data sources, such as a number of drug trend monitoring projects conducted in Australia, can be useful. The Drug Use Monitoring in Australia (DUMA) study monitors drug use among adults detained by police at seven sites in four cities. This project identified a large increase between 2000 and early 2002 in the proportions of detainees in the two NSW sites (Bankstown and Parramatta) who tested positive for cocaine. However, by 2003 the percentage of detainees testing positive to cocaine at these sites had decreased considerably.[1]

The Illicit Drug Reporting System (IDRS), an early warning drug use monitoring system, found that cocaine use among injecting drug users in Sydney increased between 1996 and 2001, with recent cocaine use (last six months) peaking at 84% in 2001 (Breen, Degenhardt, Roxburgh et al. 2004). By 2003 recent cocaine use had fallen in NSW to 53%, with frequency of use (measured by median days used) also falling from 90 days in the past six months in 2001 to 5 days in 2003. Commentators observed a strong association between reduced heroin supply between 2000 and 2002 and increased cocaine use in NSW (Degenhardt & Day 2004). In contrast to the considerable changes in patterns of cocaine use among Sydney IDU between 1996 and 2001, cocaine use remained uncommon among Melbourne IDU over this period. Further, Melbourne did not experience any appreciable increase in cocaine use during the period of reduced heroin availability. Instead methamphetamine use, particularly more potent forms such as crystal methamphetamine or 'ice', increased (Dietze et al. 2004).

Data pertaining to cocaine use among regular ecstasy users is provided by the Party Drug Initiative, a module of the IDRS which involves interviews with a sentinel group of regular ecstasy users. Frequency of cocaine use among these samples is consistently low, with a median of two days

[1] http://www.aic.gov.au/research/duma/stats/drug_cocaine.html, accessed 21/09/04

use reported by the 2003 Sydney sample and a median of three days use reported by the 2003 Melbourne sample in the preceeding six months (Breen, Degenhardt, White et al. 2004; Johnston, Laslett, Jenkinson, Miller & Fry 2004).

Typology of cocaine users

Cocaine users in Australia have been broadly characterised into two types (Hando, Flaherty & Rutter 1997). The first were high socio-economic status (SES) recreational intranasal users generally employed in a range of professional occupations. This group of users had higher than average income, levels of education and lived in affluent suburbs. This type of user had little contact with either law enforcement or health services. This group had little to gain from disclosure or discussion of their cocaine use given that it causes few personal, financial or health problems. Further, such users may also have been concerned about potential negative career and reputation ramifications if their cocaine use was to be exposed. The second group described by Hando, Flaherty & Rutter (1997) were lower socio-economic status cocaine injectors in Sydney, who were generally unemployed, have lower levels of education and are younger than the higher SES group. This second group also reported higher levels of sex work, heroin use and criminal behaviour.

The data analysed by Hando, Flaherty & Rutter (1997) was consistent with the findings of earlier drug market research conducted in the late 1980s and early 1990s which found that cocaine use among recreational drug users was typically of low frequency and associated with low levels of harm (Moosburger, Plant & Pierce 1990; Mugford 1994). The risk of a US-style cocaine or crack epidemic has previously been assessed as low due to the high cost and low availability of the drug (Hall, Carless, Homel, Flaherty & Reilly, 1991; Homel, Flaherty, Reilly, Hall & Carless 1990; Spooner, Flaherty & Homel 1993).

Two recent drug use trends have involved changes in cocaine use. The first is a general rise in polydrug use among recreational drug users, where cocaine has played a part as an additional item in the drug inventory. The second was the previously mentioned increase in use among injecting drug users in Sydney, partly as a response to the reduction in supply of heroin. Crack cocaine use remains largely unknown in Australia.

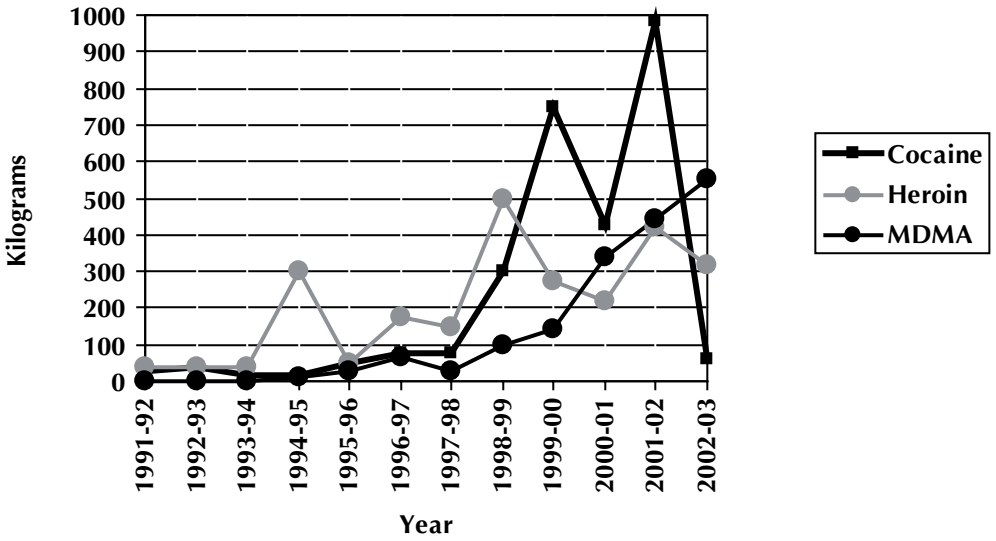
Supply

The number of cocaine-related arrests is small relative to those related to other illicit drugs [ACC 2003]. Some commentators have attributed this to the large proportion of cocaine users from higher socio-economic groups who have little interaction with law enforcement (ACC 2003). The number of cocaine-related arrests peaked in 2001/2002 when 612 were documented, consistent with the increase in cocaine use during the period of reduced heroin supply (ACC 2004). In 2002/03 there were 250 cocaine related arrests compared to 8,254 for amphetamine type substances [ACC 2004].

Australian Customs seizures

Customs seizure data for more than ten years (Figure 1) shows increases in the weight of both cocaine and ecstasy (MDMA) seizures between 1997/98 and 2001/02 and 1997/98 and 2002/03 respectively.

Figure 1: Cocaine, MDMA and heroin: Customs border detections by weight, 1991-92 to 2002-03



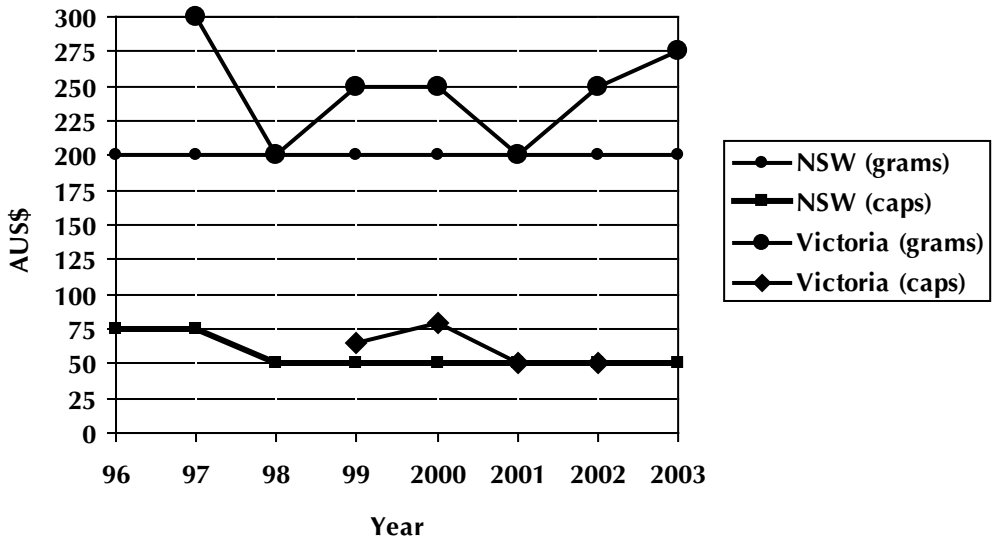
Source: (Australian Customs Service)

During the three years between 1999/00 and 2001/02 more cocaine (by weight) was seized at the Australian border than any other drug. This comprised several large seizures of single importations of hundreds of kilograms of cocaine via small craft. In 2002-03, however, the size of seizures returned to the levels of those through the 1990s. At the same time the number of seizures increased and the modes of importation returned to small-scale importations via air passengers and the postal system rather than large-scale importations via small craft. Naturally, seizure data does not indicate the number of successful importation attempts, nor does it provide conclusive evidence of substantial changes in the methods of successful importation attempts being made (e.g. a shift from small craft to shipping containers). However, a change in detection rates and methods of importation attempts can indicate an overall change in importation methods being employed by current players or the introduction of new crime groups or individuals to the importation market.

Retail cocaine prices

Cocaine price data presented in Figure 2 is taken from the annual Illicit Drug Reporting System, which monitors Australian drug trends by interviewing selected sentinel groups of injecting drug users and other key informants from health and law enforcement.

Figure 2: Retail cocaine prices in NSW and Victoria, 1996-2003 (AUS$/gram or cap)



Source: (IDRS)

The most striking feature of this price series is the stability of prices in the NSW market. Apart from a small decline in 1998 in the price of 'caps', which are normally supplied to street drug injectors and contain enough drug for one injection, the price for both grams and caps has been stable. The fall in the price of caps was seen, at the time, as an attempt to increase the street market for cocaine. Victorian price data over the same period was less stable, due in part to the small number of Victorian participants able to confidently report prices. It is, however, noteworthy that cocaine price estimates in Melbourne were generally higher than those in Sydney.

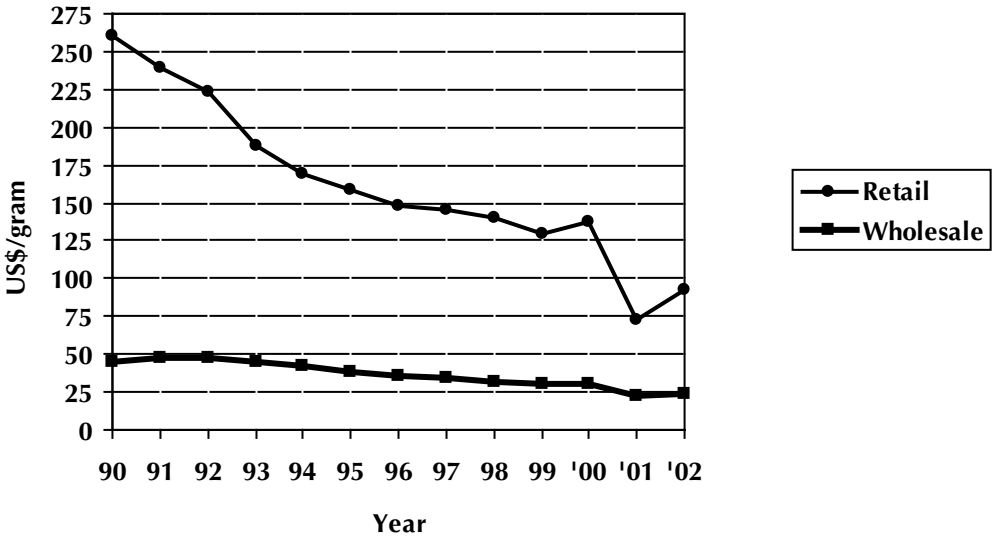
International cocaine markets

Cocaine has become a leading cause of illicit drug-related problems in most Western countries, usually associated with a shift from use of cocaine powder to crack cocaine [UNODC 2003 #373]. Australia has largely escaped this international trend and it is postulated that this is because it lacks many of the preconditions for crack cocaine use (i.e. inexpensive, pure cocaine powder, close trade and ethnic ties to South America and large impoverished inner city ghettoes).

US cocaine market

The US cocaine market is the longest established mass market for cocaine in the Western World. US cocaine consumption, cocaine-related hospital admissions and deaths have increased while purity adjusted prices have fallen over the past 25 years (Hyatt and Rhodes 1995). Figure 3 shows the downward trend in the US for wholesale and retail prices adjusted for purity of cocaine.

Figure 3: Wholesale/retail cocaine prices in the US, 1990-2002 (US$/gram)



Source: (UNODC, World Drug Report 2004)

The escalation of harms and decreases in prices has occurred despite an estimated ten-fold increase in drug law enforcement expenditures (Basov, Jacobson & Miron 2001). Basov and colleagues (2001) attributed this phenomenon to decreased market power of suppliers created by the dismantling of the powerful Colombian Medellin and Cali cocaine cartels and also technological progress in evasion. In the 1970s cocaine use spread rapidly, mainly among affluent recreational users who generally snorted cocaine powder (Agar 2003; Fuentes & Kelly 1999). US demand quickly escalated based on public perceptions of safety and glamour (Agar 2003).

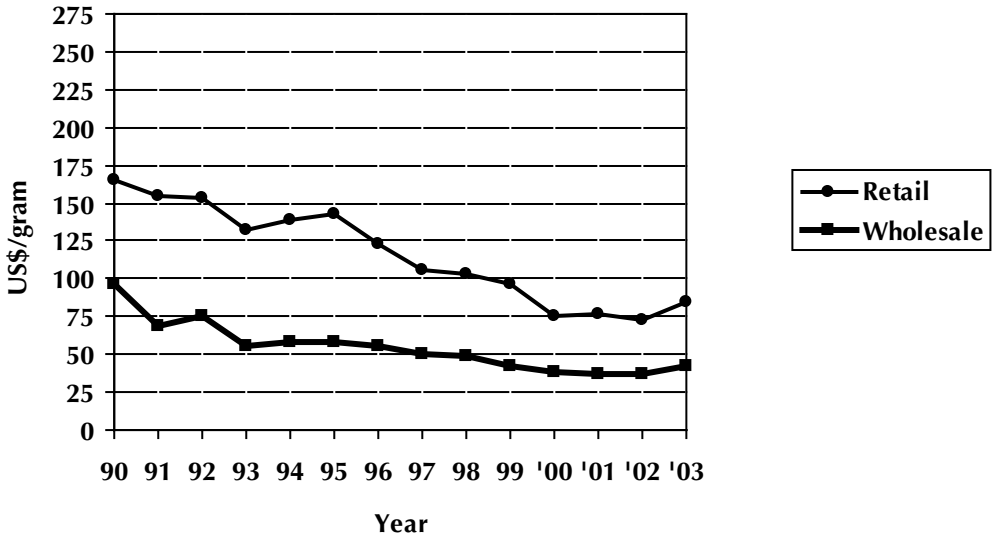
By the late 1970s and early 1980s the cultivation and refining of powder cocaine had become a major industry in Colombia, controlled by drug cartels representing loose coalitions of cocaine refiners and traffickers. The industry both fuelled and thrived upon a combination of high-level corruption, violence and political instability in producer and distributor countries (Serafino 2001). As Colombian cocaine production increased, the demand among affluent Americans for cocaine powder began to fall (Agar 2003). By the early 1980s, cocaine's glamorous image changed with increased cocaine-related hospital admissions, and health and psychiatric problems reported among high profile users (Agar 2003; Washton & Gold 1984).

The advent of cheap crack cocaine created new markets in impoverished urban communities and new distribution networks to serve them. Crack cocaine perpetuated a cycle of economic and social deterioration in many urban minority communities, with both users and dealers becoming entrenched in illegal drug markets as opportunities to participate in legal markets declined due to increased criminal penalties and records (Cross, Johnson, Rees Davis & James Liberty 2001; Rees Davis, Johnson, Randolph & James Liberty 2003). Recent estimates for US cocaine consumption for 2001 and 2002 suggest that population prevalence has stabilised while methamphetamine and ecstasy use has increased, particularly among young adults across a broader spectrum of American society (UNODC 2003).

European cocaine market

Cocaine and crack cocaine use has grown strongly in Western European countries (Haasen, Prinzleve & Zurhold 2004) while prices at both wholesale and retail levels have steadily declined over the last ten years (Figure 4) (UNODC 2004).

Figure 4: Wholesale/retail cocaine prices in Europe, 1990-2003 (US$/gram)



Source: (UNODC, World Drug Report 2004)

Western Europe's share in global cocaine seizures doubled between 1998 and 2001 from 8% to 17%. Close direct cultural and trade ties with South American and Caribbean countries facilitated distribution networks through Britain, Spain, the Netherlands and Portugal. International agencies reported that cocaine traffickers may have been attracted to more lucrative European markets due to lack of growth in saturated US market (Haasen, Prinzleve & Zurhold 2004; UNODC 2003). Cocaine use is highest in Britain and Spain, where population prevalence estimates of around 2% for cocaine use are comparable to Australia (EMCDDA 2004). The British Crime Survey (2003) found cocaine and crack had displaced amphetamines as the second most used illicit drugs after cannabis (Condon & Smith 2003). The NEW-ADAM survey of drugs and crime in England and Wales, found that arrestees who used heroin, cocaine and crack cocaine comprised 10% of the interview sample but were responsible for 31% of illicit income reported (Bennet & Holloway 2004). A recently published study of 1,855 cocaine users in nine European cities found the greatest intensity of cocaine use and 'harms' was among marginalised users, characterised by unstable housing, unemployment and higher rates of recent criminal activity (Prinzleve, Haasen & Zurhold 2004).

Asia Pacific cocaine market

Asian and Pacific nations accounted for the smallest proportion of cocaine seizures world-wide, and cocaine is uncommon in comparison to widely produced and consumed synthetic psychostimulants, particularly methamphetamine (UNODC 2003). There are fewer direct trade and cultural links between the Asia Pacific region and cocaine producing areas of South America. In the early 20th Century, Javanese (Indonesian) coca production actually accounted for 25% of World production and Japan was a leading processor of Peruvian cocaine (Karch 1998). However, any potential for the re-emergence of coca cultivation in highland areas of Asia and Africa has, to date, been prevented by the competitive advantage of South America in producing large quantities of low cost cocaine (Morrison 1997).

Context of current research

The market for cocaine in Australia is small and relatively concentrated compared to other illicit drug markets such as heroin, cannabis and amphetamine-type substances [AIHW 2002 #36]. As a consequence, the cocaine market is less well understood than other illicit drug markets. Cocaine is used by a range of socially divergent groups, from street-based primary heroin injectors and sex workers, to affluent individuals working in professional occupations. A major challenge when studying cocaine markets, given the heterogenous nature of cocaine users, is to recruit a representative sample. For example, affluent cocaine users may have less interest in participating in drug research, due to time constraints and concerns about confidentiality. Further, this sub-population also has fewer interactions with either law enforcement or health services, avenues through which additional information may be obtained and research participants recruited. The present study of patterns of cocaine use and supply in Sydney and Melbourne and implications for law enforcement was commissioned by the National Drug Law Enforcement Research Fund (NDLERF). The 12 month project was a collaborative study conducted by the National Drug and Alcohol Research Centre (NDARC) in Sydney and Turning Point Alcohol and Drug Centre in Melbourne.

Aims

The primary aim of the study was to describe the structure and dynamics of cocaine demand and supply in Sydney and Melbourne. A multi-modal approach was developed to recruit a broad spectrum of users and dealers through face-to-face, telephone and Internet-based interviews. The study was promoted through targeted media promotion and advertising, Internet links from targeted websites and a staged recruitment strategy which focused initially on affluent users.

Chapter two: Methods

Study design

This cross-sectional study involved 298 cocaine users from two cities, Sydney and Melbourne. Subjects were interviewed face-to-face (Sydney (*n*=77), Melbourne (*n*=69), by telephone (Sydney (*n*=11), Melbourne (*n*=8)) and via a web-based questionnaire (Sydney (*n*=39), Melbourne (*n*=94)), with data collected between October 2004 and January 2005. The study aimed to obtain market data from a wide range of participants with broad inclusion criteria of cocaine use in the past six months and aged 18 years and over.

Study procedures

Participants contacted the researchers by telephone and were screened for study eligibility. An interview time and place was arranged, usually at the respective Research Centre or public places, such as coffee shops and parks. A small number of telephone interviews were conducted with participants who were unable to attend face-to-face interviews due to work or other personal commitments. All interviews were confidential and anonymous, and lasted approximately 30 minutes. All respondents participated voluntarily and were reimbursed $50 for their participation. The nature and purpose of the study was explained to participants before informed consent was taken. Ethical approval was obtained from the University of New South Wales, Human Research Ethics Committee and the Victorian Department of Human Services, Human Research Ethics Committee.

Research strategy

Major challenges to obtaining a representative sample of cocaine users and dealers were previously identified as:

- Diversity of users;
- Reluctance of affluent users to participate;
- Reluctance of suppliers to participate;
- Reluctance to give sensitive transaction data.

The following recruitment strategies were implemented to overcome these challenges.

Media plan

A media plan was developed with three approaches including generating articles/news items in target media, placing paid advertisements in target media/websites and creating Internet links with target websites. The implementation of the media plan was staggered to allow maximum effort in the recruitment of affluent, higher SES users by focussing initially on media catering for this group. Paid advertisements appeared in a range of print media including the Australian Financial Review, The Age and The Sydney Morning Herald. News items describing the study were also published in the Melbourne Herald Sun and the Sydney Morning Herald. The advertisements invited people who had used cocaine in the past six months to log onto the survey website and assured them that their confidentiality was protected through the technical features of the website. They were further invited to contact the researchers for personal interviews. Paid advertising was also placed in the Lawyers Weekly – a national weekly journal distributed to all law firm partners, and an

Internet advertising tile was placed on the Lawyers Weekly website for 3 weeks. Advertisements were also placed in local community newspapers distributed in affluent suburbs and the CBD. These included the Wentworth Courier (Sydney Eastern Suburbs), Melbourne Weekly Magazine (Melbourne South Eastern Suburbs), Melbourne Times, Manly Daily (Sydney Northern Suburbs), the Sydney Weekly, and weekly and daily magazines distributed to CBD workers including MX in Melbourne and Nine-to-five in Sydney. While this advertising and media program accounted for over 80% of the study advertising budget, only 14 personal interviews (9%) were directly attributable to these sources.

The second phase of the media plan, launched two months after the first phase, targeted the free street press in both cities. Titles included the Sydney Star Observer (gay press), 3D World (music/youth, Sydney), Drum Media (music, Sydney), Beat Magazine (Melbourne) and In Press (Melbourne). Twenty-three (14%) personal interviews were directly attributable to these sources. The study was also mentioned on the national ABC youth radio station Triple J, as well as the Nova radio stations in both Sydney and Melbourne, although no personal interviews were directly attributable to these sources. The survey was subsequently advertised with linkages, after necessary permissions and endorsements, on various websites including: www.spraci.com; www.residentadvisor.net; www.thescene.com.au; www.clubvibes.com; www.djtracker.com; www.bluelight.nu; www.pillreports.com; www.smilepolice.com; and www.gothic.org.au. In addition to targeted marketing and advertising, the on-line survey was optimised for Internet search engines. Consideration of the nature and profile of the intended audience in the choice and placement of wording is critical to the search engine optimisation (SEO) process. SEO involved manual submission of the survey's Internet address to major search engine vendors, as well as careful authoring of the web pages to ensure automated Internet processes indexed highly relevant information. Three interviewees nominated the web as their source for information about the study. Five subjects who presented for personal interviews had also completed the web-based survey suggesting very little overlap between the two survey samples.

Web-based survey

The web-based survey was based on the first four sections of the personal interview (Demographics, Drug History, Buying Cocaine and Selling Cocaine). The sub-set of questions was selected as it represented the main objective of the study – to examine market characteristics and dynamics. Interview sections on crime, health, severity of dependence and social functioning were not included in the web-based survey. However, questions whether cocaine had caused relationship/social, financial, legal/police, work/study problems were asked in both formats. The inclusion criteria were 'cocaine use in the previous six months', 'age older than 18 years' and 'residence in either metropolitan Melbourne or Sydney'. To ensure accurate self-completion, the web-based questions were also selected to be brief, concise and non-intrusive. The same questions were asked in both the personal and web-based surveys to allow results to be compared and, for some analyses, to be combined. The estimated completion time was approximately 20 minutes.

The survey was hosted on Turning Point Alcohol and Drug Centre's secure server with appropriate support from the organisation's Information Technology unit. Respondents were required to follow a link to the questionnaire on the Turning Point Alcohol and Drug Centre website. On completion, the survey data were stored on the Turning Point server and were accessible only to the research team. A web HTML format was chosen to deliver the questionnaire as it provided a familiar interactive format that was highly flexible. The design chosen allowed for the automated collection of data that held substantial benefits in terms of data entry costs and speed. The software used to develop the web survey was limited to the degree to which it constrained data entry to prevent contradictory errors, although there was the ability to limit the way in which respondents answered questions, such as only being allowed to tick one box.

Limitations

Sampling biases are an issue in this methodology, where the sample was limited to those who are computer literate and have access to a computer. The Internet method chosen could not prevent people visiting the site and submitting more than one completed survey. In a more sophisticated design, this may be addressed through a number of strategies, including the use of 'cookies' (small files which identify that a certain computer has already visited a website), although this technology has both limitations and implications for respondent confidentiality. Internet participants were not reimbursed which meant that the sample was highly self-selected. It is possible that reimbursement might lead to much greater rates of participation and a broader sample. This issue can also be addressed in a number of ways, including through the use of a voucher system. Finally, as with all forms of survey, the web-based survey relied on self-report, which is open to many biases. There was no way of ensuring that respondents were what they claimed to be. Whilst this may be the case with all survey methods to some degree, in this format there was no way to ensure that the person filling out the survey is not an inappropriate respondent (although this issue can also arise with mail out surveys). It may also be difficult for non-cocaine users to provide consistent and plausible price data.

Snowballing

'Snowballing' is a method used to sample 'hidden' populations where, for example, illegal or stigmatised behaviours make it difficult to accurately estimate the size and characteristics of a population (Biernacki & Waldorf 1981). The method relies on chain referral sampling through peers, clinical and research contacts and is particularly useful when examining natural interactional units such as drug supply chains. The technique is commonly used in Australia through established drug market monitoring systems such as the IDRS (Breen, Degenhardt, Roxburgh et al. 2004) and Party Drugs Initiative (PDI) (Breen, Degenhardt, White et al. 2004). Flyers advertising the study were left at needle and syringe programs, the Medically Supervised Injecting Centre in Sydney, the Sex Workers Outreach Project (SWOP) in Sydney and the Resourcing, Health and Education (RHED) program in Melbourne. Staff at the collaborating Research Centres also had extensive networks of user contacts from prior clinical and epidemiological research. On the completion of each interview, participants were asked if they would mention the study to fellow users or suppliers and, if interested, they were given flyers or cards to pass on. Interviews with less involved members of social groups or supply chains, would often lead to subsequent participants presenting with much more extensive involvement in cocaine use or supply. Snowballing was easily the most successful method of recruitment to the study, accounting for 72% of all personal interviews.

Measures

The survey questionnaire consisted of eight sections. The *Demographics* included age, gender, residence and questions about socio-economic status including education, occupation and pre-tax income. *Drug history* included recent cocaine use based on the methods described in *Recent use episodes method* section, other illicit drug use including number of days used in the past six months, cocaine-related problems and treatment utilization. *Buying Cocaine* included estimates of the usual price of a cap or gram of cocaine, sources of money that financed participants' cocaine use, the specific cost of cocaine bought in the past six months based on the methods described in *Recent use episodes method* section and also perceptions about the general price, purity and availability of cocaine. *Selling Cocaine* included the specific amounts of money received for the last two transaction days and the largest and smallest transactions in the past six-months, history of drug dealing, other drugs dealt, risk perceptions, motivations to deal and involvement in importation. *Crime* was assessed using the Opiate Treatment Index Crime Scale (Darke, Hall,

Wodak, Heather & Ward 1992) which measures property crime, drug dealing, fraud and violent crime in the past month. Questions about current criminal charges and prison history were added. *Injecting and Sexual Risk Practices* were assessed using the Opiate Treatment Index HIV Risk Behaviour Scale (Darke et al. 1992) based on occasions of syringe sharing and unprotected sex in the past month. *Severity of Cocaine Dependence* over the past twelve-months was assessed using the Severity of Dependence Scale (SDS) as described by Gossop et al. (1995), and a score of three or greater on the SDS was considered indicative of cocaine dependence (Kaye & Darke 2002). *Social Functioning* was assessed using the SF-12 (Sanderson & Andrews 2002b) which measures physical and mental disability.

Recent use episodes method

Cocaine use was measured using a recent use episodes method as described by Darke and colleagues (Darke, Heather, Hall, Ward & Wodak 1991). This method calculates a score based on the last three days when cocaine was used. The method has demonstrated reliability due to the better accuracy of recall of recent critical events compared to asking users to estimate or average their use over time. The method also allows comparability between different drug types, purity levels and routes of drug administration (i.e. snorting lines versus injecting caps versus smoking rocks) because each drug use episode is simply measured as one unit. This approach is statistically robust as it generates continuous data which is more sensitive when measuring variations in drug use over time or between user types.

A score was generated based on the following formula:

$$Q = \frac{q1 + q2}{t1 + t2}$$

where: Q = the average times cocaine was used per day

q1 = the number of times cocaine was used on the last day of use

q2 = the number of times cocaine was used on the second last day of use

t1 = interval between the last day of cocaine use and the next to last use day

t2 = interval between the second and third last days of cocaine use

Where users had only used one or two days in the past month or the time between the interview date and the last day of use was greater than one month, q1 and q2 were divided by 28. As would be expected, a large proportion of recreational or binge users had low Q scores leading to a highly skewed distribution for this variable.

In addition to occasions of use, participants were asked how much money they spent on cocaine or received when cocaine was sold and the total quantity that exchanged hands. The size and price of transactions is one indication of the position of an individual user or seller in the supply chain in the absence of reliable purity data (Pennell, Ellett, Rienick & Grimes 1999). Expenditure and income questions were therefore asked about the lowest price paid for cocaine in the past six-months, the smallest quantity of cocaine purchased in the last six-months and the largest quantity of cocaine purchased in the last six-months. The recent critical events approach was used to explore the specific context of cocaine transactions including location, usual relationship with supplier, other drugs purchased from the supplier, duration of supply relationship and method of original introduction.

Data analysis

Raw data were entered and analysed using SPSS for Windows (Version 12.0.1). Statistical tests were two-tailed using a 5% level of significance. Continuous variables were analysed using *t-tests* and *analysis of variance* (ANOVA), categorical variables using *chi-squared* and skewed data were analysed using the *Mann-Whitney U-test*.

The results are presented in four sections:

1) The first section analyses the results by city from 165 personal interviews conducted in Melbourne (*n*=77) and Sydney (*n*=88);
2) The second section expands the analysis by comparing the researcher conducted personal interviews (*n*=165) to the web-based survey (*n*=133);
3) The third section re-analyses the entire sample (*n*=298) by socio-economic status;
4) The fourth section analyses twenty "for profit" cocaine dealers based on interviews obtained from both the personal interviews (*n*=15) and the web based survey (*n*=5).

In addition to these four sections, estimates of the market size based on the results from this study and other surveys are presented in Appendix A. Detailed dealer case studies from which all supply data was derived, are presented in Appendix B.

Chapter three: Results by city

Key findings

Characteristics

This section compares the results from personal interviews conducted by interviewers in Melbourne (*n*=77) and those conducted in Sydney (*n*=88) between October 2004 and January 2005. Participants were generally well educated, single, aged in their late twenties to early thirties, employed with a weekly median pre-tax income of $501-$1000 with roughly equal proportions of male and female respondents.

Patterns of cocaine use

Most participants preferred to snort cocaine although a third of the Sydney sample reported injecting as their preferred method of use. Crack cocaine use was uncommon in both cities. Most cocaine was used in private homes and parties, as well as nightclubs, pubs and bars. Sydney-based participants used almost four times more cocaine than Melbourne-based participants, both in terms of the average number of 'hits' averaged out over a daily basis (0.72 versus 0.21) and also in the median number of days used in the past 6 month period (22.5 versus 4.0).

Buying cocaine

The price of cocaine per gram was comparable between the two cities. The median price for a gram of cocaine based on the most recent purchase occasion was $267 in both cities. Injecting cocaine users in Sydney also purchased cocaine in caps (approximately 0.1 grams). The median price for a cap of cocaine in Sydney was $50. Most respondents reported financing their cocaine use through paid employment, although in Sydney users reported a wider range of sources including sex work and dealer credit. Cocaine transactions normally took place in private homes, although higher proportions in Sydney purchased on the street and in Melbourne at nightclubs. The importance of social networks in cocaine markets was apparent with considerable proportions of both samples reporting purchase of cocaine from friends.

Harms

A larger proportion of the Sydney sample reported experiencing problems as a result of their cocaine use including financial problems, legal problems and cocaine dependence. However, very few had sought treatment for cocaine related problems in the past six months. While the majority of the sample displayed no or only mild impairment in terms of physical functioning, most reported a degree of psychological impairment (i.e. where their mood or state of mind affected everyday activities). In general, low levels of crime were reported, although approximately a third of both samples reported having dealt drugs (most commonly cocaine, cannabis and ecstasy) in the month preceding interview. The Sydney sample scored more highly on a measure of crime, with nearly one-quarter reporting a prison history.

Sample characteristics

The demographic characteristics of the sample compared by city appear in Table 1. The samples were comparable, apart from age, with the Sydney sample being significantly older (t=2.682, p=0.008). The samples from both cities were well-educated with 30% holding university qualifications.

Table 1: Characteristics of Melbourne and Sydney samples.

	Melbourne (*n*=77)	**Sydney (*n*=88)**
Mean age (range)	29 (19-49)	**32* (20-49)**
Male (%)	51	58
Single/divorced (%)	69	77
Home owner (%)	9	19
Educated to year 12 (%)	83	81

**p<0.05*

The Melbourne participants reported residing in inner suburban areas (*n*=32) such as South Yarra and Fitzroy, to the north of the city (*n*=15) in areas such as Brunswick and Thornbury, and to the south of the city (*n*=18) in areas such as St Kilda, Elwood and Caulfield. Only a small number of participants reported living in the eastern suburbs (*n*=2) or to the west of the city (*n*=1). The remaining participants lived in outer Melbourne to the south (*n*=2), the west (*n*=1), and the north (*n*=1), with one living in country Victoria. Four participants declined to provide a suburb of residence.

The Sydney participants reported living in the inner city areas around Kings Cross and Darlinghurst (*n*=36), the eastern suburbs around the ocean beaches and harbour (*n*=16), the inner west (Balmain, Drummoyne) (*n*=12) and south west (Canterbury-Bankstown) (*n*=10). Smaller numbers of participants lived on the north shore (*n*=8), the greater western suburbs (*n*=4) and southern suburbs (*n*=2).

Employment

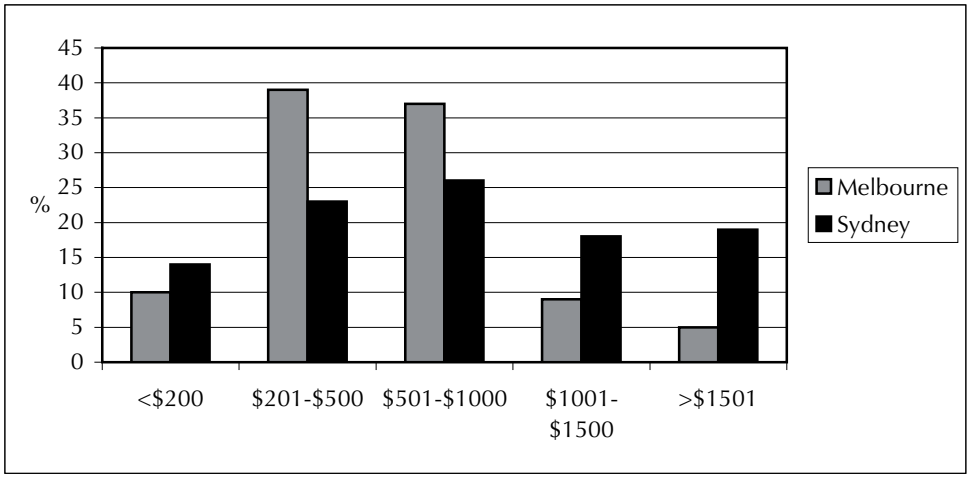
The employment status of the two samples was also broadly comparable, with approximately two-thirds currently employed full-time, part-time, casual or self-employed (Table 2). A larger number of the Sydney sample reported receiving a pension or worker's compensation than the Melbourne sample. A small proportion of both samples reported undertaking sex work.

Table 2: Employment status of the Melbourne and Sydney samples.

	Melbourne (*n*=77)	**Sydney (*n*=88)**
Unemployed (%)	14	10
Full-time employed (%)	31	36
Self-employed (%)	17	15
Part-time/casual employed (%)	20	11
Student (%)	8	3
Home duties (%)	3	0
Sex work (%)	4	8
Crime (%)	0	2
Workers compensation/pension (%)	4	14

As illustrated in Figure 5, income patterns differed between Melbourne and Sydney. Approximately one-third of the Melbourne sample reported earning $201-$500 per week (before tax) and a similar proportion reported earning $501-$1000 per week (before tax). The incomes of the Sydney sample were more evenly distributed across the five wage categories.

Figure 5: Weekly income (before tax) of Melbourne and Sydney samples



Patterns of cocaine use

Sydney participants used more cocaine as measured by the median *Q* score (U=1841, p<0.001) compared to Melbourne participants. The Sydney sample also reported a significantly higher median number of days of cocaine use in the preceding six months than the Melbourne sample (U=1269, p<0.001). The average age of first cocaine use was 21 years in both cities (Table 3). A higher proportion of the Melbourne sample reported snorting as their preferred method. In comparison, one third of the Sydney sample reported injecting as their preferred route of administration. Only a small proportion of each of the samples reported either smoking or oral use as their preferred route of administration. Although nearly one-third of both samples reported having ever used crack cocaine, only a small proportion reported crack cocaine use in the preceding six months. Many participants were unfamiliar with crack cocaine, and it is possible that those reporting its use may have confused it with smokeable forms of methamphetamine such as ice. It should be noted, however, that the duration of action of cocaine is very short (20 minutes) compared to methamphetamine (6 hours) and thus experienced drug users easily distinguish the two drugs.

Table 3: Patterns of cocaine use by Melbourne and Sydney samples.

	Melbourne (*n*=77)	**Sydney (*n*=88)**
Median hits per day (*Q* score) (range)	0.21	**0.72***
	(0.04-2.86)	**(0.04-13.5)**
Preferred route of administration		
Snorting (%)	80	65
Injecting (%)	16	32
Other (smoking/oral) (%)	4	3
Median days cocaine used in the past six months (range)	4.0	**22.5***
	(1-180)	**(1-180)**
Mean age first cocaine use (range)	21	21
	(12-32)	(12-38)
Ever used crack cocaine? (%)	32	28
Median days crack used in the past six months (range)	2.5	7
	(1-90)	(1-40)
	(*n*=10)	(*n*=8)

*$p<0.05$

Drugs used in combination with cocaine

Poly drug use was the norm for both samples, although a higher proportion of the Sydney sample (15%) reported using cocaine on its own compared to the Melbourne sample (1%) (χ^2=7.682, p=0.006) (Table 4). Significantly more Melbourne respondents reported using amphetamines in conjunction with cocaine (χ^2=12.885, p<0.001). The majority of both samples reported using alcohol with cocaine. Large proportions of both samples reported typically using ecstasy and cannabis in conjunction with cocaine.

Table 4: Drugs used in combination with cocaine.

	Melbourne (*n*=77)	**Sydney (*n*=88)**
None (%)	1	**15***
Alcohol (%)	72	56
Heroin (%)	13	19
Ecstasy (%)	45	40
Cannabis (%)	51	32
Speed (%)	**40***	15
Crystal meth (%)	8	9

Table 4 continued.

	Melbourne (*n*=77)	Sydney (*n*=88)
Benzodiazepines (BZD) (%)	10	7
Ketamine (%)	8	8
Gamma Hydroxybutyrate (GHB) (%)	3	5

**p<0.05*

Recent use of other illicit drugs

Participants were asked about other illicit drugs used in the six months preceding the interview (Table 5). The Sydney sample reported significantly higher frequency of heroin use (U=155.5, p=0.017). In contrast, a higher proportion of the Melbourne sample reported recent use of speed (χ^2= 6.827, p=0.009) and ecstasy (χ^2= 5.244, p=0.022).

Table 5: Other illicit drug use in the last 6 months.

	Melbourne (*n*=77)		Sydney (*n*=88)	
	% used	Median days (range)	% used	Median days (range)
Speed	**70***	10 (1-180)	48	6 (1-130)
Crystal meth	46	6 (1-90)	39	10 (1-180)
Ecstasy	**74***	7 (1-100)	55	11 (1-150)
Ketamine	22	5 (1-72)	26	5 (1-104)
GHB	22	4 (1-100)	16	2 (1-40)
BZD	57	6 (1-180)	41	15 (1-180)
Heroin	28	20 (1-180)	29	**104* (4-180)**
Cannabis	74	26 (1-180)	67	45 (1-180)

**p<0.05*

Buying cocaine

Participants were asked how much a gram or cap of cocaine usually cost and then how much they actually paid per gram or cap at their most recent purchase (Table 6).

Table 6: Cocaine prices estimated and most recent purchase Melbourne and Sydney.

		Melbourne (*n*=77)	Sydney (*n*=88)
Estimated price	Median price per gram (range)	$250 ($150-$600)	$250 ($100-$500)
	Median price per cap (range)	N/A	$50 ($50-$100)
Actual most recent price paid	Median price per gram (range)	$267.50 ($150-$500)	$266.70 ($140-$500)
	Median price per cap (range)	N/A	$50 ($37.50-$100)

Both samples reported that the usual price of a gram of cocaine in their respective cities was a median of $250 per gram with relatively wide but comparable ranges in price. The most recent price paid per gram of cocaine was remarkably similar in both cities at a median of $267. This could suggest that the market for grams of cocaine is the same in both cities. The under-estimation of usual price compared to actual price is consistent with the drug use recall literature (Darke 1998).

An interesting difference between the two cities was that just over one-third (34%) of the Sydney sample reported on the price of cocaine per cap, rather than per gram, with none of the Melbourne sample doing so. These findings suggest that there are some distinct differences in the characteristics of the cocaine markets in Melbourne and Sydney (as a result of differing demands and characteristics of users).

As already noted, cocaine was generally expensive to purchase in both cities (around $267 per gram at the most recent purchase occasion). The cheapest that users had bought cocaine for was $200 a gram in Sydney and slightly higher at $235 in Melbourne. Often participants commented that cheaper 'deals' usually indicated lower purity. The price picture is one where users are price takers with little power to manipulate the price downwards. This view is reinforced among purchasers of cocaine caps designed for injection, where the median most recent price and the median cheapest price paid were the same at $50.

Table 7: Other cocaine prices and expenditures (cheapest, largest, smallest) in the past 6 months.

		Melbourne	Sydney
Lowest price	Median price per gram (range)	$235 ($150-$500)	$200 ($15-$400)
	Median price per cap (range)	N/A	$50 ($10-$100)
Largest quantity purchased (excluding dealers)	Median amount (range)	$300 ($100-$1,500)	$600 ($100-$2000)
	Median amount (range)	N/A	$450 ($50-$1,500)
Smallest quantity purchased	Median amount (range)	$200 ($50-$320)	$170 ($50-$250)
	Median amount (range)	N/A	$50 ($10-$100)

Usual sources of money to pay for cocaine use

Participants were asked how they had obtained the money they used to purchase cocaine in the preceding six months (multiple answers were allowed) (Table 8).

Table 8: Usual sources of money to pay for cocaine.

	Melbourne (*n*=77)	Sydney (*n*=88)
Paid employment (%)	59	59
Shouted (%)	**81***	58
Credit from dealers (%)	8	**22***
Government allowance (%)	14	26
Dealing (personal supply) (%)	13	21
Money made from dealing (%)	9	19
Sex work (%)	0	**15***
Traded for goods (%)	0	**11***

*$p<0.05$

The Melbourne sample was significantly more likely to report being shouted cocaine than the Sydney sample (χ^2= 8.671, p=0.003). Nearly two-thirds of both samples reported paying for their cocaine through paid employment. The Sydney sample was significantly more likely to report using money made from sex work to pay for their cocaine use in the preceding six months (χ^2= 10.396, p=0.001). In comparison, a number of the sex workers that were interviewed in Melbourne reported that they were often shouted cocaine by their clients. The Sydney sample were also significantly more likely to report receiving credit from dealers (χ^2= 5.056, p=0.025) and trading goods for cocaine (χ^2= 7.425, p=0.006).

Usual location of cocaine use

Participants were asked where they usually used cocaine (with multiple answers allowed) (Table 9). Many participants reported using cocaine in private locations. Approximately two-thirds of both samples reported typically using cocaine at home and considerable proportions reported using cocaine at private parties. Friend's home was the option most commonly reported by the Melbourne sample (73%), with less than half of the Sydney sample reporting this. The Melbourne sample was significantly more likely to report using cocaine at a friend's home than the Sydney sample (χ^2= 12.431, p<0.001). The Melbourne sample was also significantly more likely to report using cocaine at a dealer's home (χ^2= 4.425, p=0.035) than the Sydney sample. An interesting difference between the cities was the significantly higher level of reporting of cocaine use in nightclubs in Melbourne (61%) compared to Sydney (28%) (χ^2= 16.476, p<0.001).

Table 9: Usual locations of use for Melbourne and Sydney samples.

	Melbourne (*n*=77)	Sydney (*n*=88)
Home (%)	66	63
Friend's home (%)	**73***	44
Street/public place (%)	12	14
Dealer's home (%)	**22***	9
Workplace (%)	9	6
Pub (%)	22	19
Nightclub (%)	**61***	28
Restaurant (%)	12	10
Car (%)	22	15
Other entertainment venue (%)	16	13
Dance party/rave (%)	22	14
Private party (%)	43	30
Medically Supervised Injecting Centre (%)	N/A	16

*$p<0.05$

Details of most recent cocaine purchase

A range of purchase locations was reported by both samples (Table 10). The most common places reported by the Melbourne sample were private locations, namely friend's home (32%) and dealer's home (15%), although 11% reported making their last cocaine purchase in a nightclub. Dealer's home (30%) and own home (23%) were reported most commonly by the Sydney sample, with street/public place (23%) also being commonly reported.

Table 10: Location of most recent cocaine purchase.

	Melbourne (*n*=77)	Sydney (*n*=88)
Home (%)	9	23
Friend's home (%)	32	10
Street/public place (%)	2	**23***
Dealer's home (%)	15	30
Workplace (%)	2	1
Pub (%)	7	6
Nightclub (%)	**11***	1
Restaurant/café (%)	4	0
Dance party/rave (%)	4	0
Private party (%)	7	0
Bar (%)	2	0
Car (%)	0	5

*$p<0.05$

Participants were asked how many people they had purchased cocaine from in the last six months (Table 11). The Sydney sample reported purchasing cocaine from a statistically significantly higher number of people (t=4.207, p<0.001). It is interesting to note that 27% of the Melbourne sample and 10% of the Sydney sample reported not purchasing cocaine from anyone in the preceding six months, meaning that they had been shouted cocaine on all of their occasions of use during that period.

Table 11: Dealer profile by city.

	Melbourne (*n*=77)	**Sydney (*n*=88)**
Average number of dealers (range)	1.6 (0-10)	**3 (0-12)***
Relationship with most recent dealer		
Friends/family (%)	**71***	41
Workmate (%)	4	0
Mobile dealer (%)	13	17
Home-based dealer (%)	13	24
Street dealer (%)	0	15
Other drugs supplied		
None (%)	44	50
Speed (%)	32	5
Meth base (%)	6	4
Crystal meth (%)	22	6
Heroin (%)	2	10
Ecstasy (%)	41	28
Cannabis (%)	24	18
Length of supply relationship		
First time (%)	**39***	12
Less than year (%)	29	40
More than one year (%)	32	48
How introduced		
Family/friends (%)	51	53
Other drug supply or use (%)	4	7
Workplace (%)	5	8
Jail (%)	0	1

*$p<0.05$

Over half (54%) of the Melbourne sample reported purchasing cocaine from a friend on the most recent occasion, with purchasing from an acquaintance, mobile dealer and home-based dealer each reported by 13% of the Melbourne sample. The Sydney sample was comparable, with purchasing from a friend most commonly reported (32%), followed by home-based dealer (24%) and mobile dealer (17%). Purchases from street-based dealers were limited to the Sydney sample, with none of the Melbourne sample reporting that they purchased in this way. It is possible that this can be attributed to street-based IDU/sex workers in the Sydney sample. As mentioned previously, the Melbourne sex workers tended to report being shouted cocaine by clients, rather than purchasing it themselves.

Around half of both samples reported that they had purchased drugs other than cocaine from their most recent cocaine suppliers. The most commonly reported drugs purchased from the most recent cocaine dealer by the Melbourne sample were ecstasy (41%), speed (32%), cannabis (24%) and crystal meth (22%). Ecstasy (28%) was also the drug most commonly reported by the Sydney sample as having been purchased from their most recent cocaine dealer, followed by cannabis (18%) and heroin (10%).

Most cocaine dealing, in both cities, was done within friendship groups or among established dealing relationships. In Sydney the relationships were longer established, perhaps reflecting a more mature or established market. The importance of social networks is apparent in the details of how participants were first introduced to the person they had most recently purchased cocaine from, with over half of both samples reporting having done so through friends and/or family.

Cocaine-related harms

Cocaine-related problems as reported by participants are summarised in Table 12.

Table 12: Cocaine-related harms experienced by Melbourne and Sydney samples.

	Melbourne (*n*=77)	**Sydney (*n*=88)**
Occupational/study (%)	16	21
Relationship/social (%)	15	23
Financial (%)	21	**41***
Legal/police (%)	1	**10***
Treatment sought (%)	5	11
Cocaine Dependence Diagnosis	21	**48***
HIV risk taking score (mean) (range)	6.7 (0-23)	7.99 (0-25)

*$p<0.05$

Cocaine users in Sydney were significantly more likely to report financial (χ^2=7.425, p=0.006) and legal problems (χ^2=5.656, p=0.017) stemming from their cocaine use. Sydney based users were also significantly more likely to have a SDS indicative of dependence (greater than or equal to three) (χ^2=11.554, p=0.001), consistent with the greater frequency of self-reported cocaine use.

Participants were also asked whether they had sought help for their cocaine use in the previous six months (Table 12). Although a higher proportion of the Sydney sample reported having sought treatment for their cocaine use in the last six months, the difference was not statistically significant.

A range of services had been sought by those who reported seeking help for their cocaine use, with some participants seeking help from multiple service-types: counsellor (*n*=5); detoxification (*n*=4); residential rehabilitation (*n*=2); psychologist (*n*=2); Narcotics Anonymous (*n*=2); drug and alcohol service (treatment-type not specified) (*n*=2); methadone clinic (*n*=2); and natural therapist (*n*=1).

The HIV risk scores, which comprise an injecting risk scale and a sexual risk scale, were comparable between the two cities and fell within the average range for IDU populations.

Social functioning

Social functioning was assessed using the SF-12, a shorter version of the SF-36 which has been validated for Australian populations (Sanderson & Andrews 2002b). The SF-12 provides a global assessment of health and well-being relative to population norms through two summary scales. Physical well-being is reflected in the Physical Component Summary (PCS) and mental well-being in the Mental Component Summary (MCS). The cut-off is a score of 50 or less on either of these scores which is indicative of physical or mental disability relative to the general population. The severity of disability can be categorised as mild (score of 40 to 49), moderate (score of 30 to 39) and severe (score below 30) (Sanderson & Andrews 2002a).

Physical disability

Table 13: Physical disability of the Melbourne and Sydney samples.

Severity	Melbourne (*n*=76)	Sydney (*n*=88)
None (%)	63	70
Mild (%)	20	20
Moderate (%)	13	9
Severe (%)	4	1

There were no significant differences in physical disability in cocaine users in Melbourne or Sydney. The majority of cocaine users reported no physical disability or only mild physical impairment. Note that the physical impairment here pertains to everyday activities such as climbing stairs, housework and normal work or study.

Mental disability

Table 14: Mental disability of the Melbourne and Sydney samples.

Severity	Melbourne (*n*=76)	Sydney (*n*=88)
None (%)	27	42
Mild (%)	24	10
Moderate (%)	33	29
Severe (%)	16	19

In contrast to physical disability, the majority of cocaine users in both cities reported mental disability. Note here that mental impairment relates to mood (i.e. depression, anxiety) and its effect on everyday activities and social activities.

Criminal activity

Participants were asked about how often they had committed a number of different types of crime in the month preceding interview, with the proportion of the two samples that reported committing such crime present in Table 15.

Table 15: Reported criminal activity by Melbourne and Sydney samples.

	Melbourne (*n*=77)	**Sydney (*n*=88)**
Property crime (%)	4	7
Dealing (%)	33	36
Fraud (%)	1	3
Violent crime (%)	0	5
Mean total crime scores	0.68	**1.13***
Currently facing charges (%)	7	8
Prison history (%)	10	23

*$p<0.05$

It is likely that participants under-reported their involvement in criminal activity. Nevertheless, of the property crimes reported by the participants (across both cities), shoplifting (*n*=6) was the most commonly reported, followed by receiving stolen goods (*n*=3) and break and enter (*n*=1). Dealing was the crime most commonly reported by the two samples. Twenty-six participants reported having sold cocaine in the month preceding the interview, with cannabis and ecstasy/MDMA each reported by 18 participants. Other drugs participants reported dealing included amphetamines (*n*=15) (all in Melbourne), heroin (*n*=10), tranquillisers (*n*=5), hallucinogens (*n*=2) and ketamine (*n*=2).

The participants reported engaging in low levels of fraud in the month preceding interview, with one participant mentioning each of the following: false number plates, credit card fraud and corporate embezzlement. Although none of the Melbourne sample reported engaging in violent crime, four of the Sydney participants reported assaulting someone in the month prior to being interviewed.

As indicated by the total crime scores, the Sydney sample scored significantly more highly on this measure than the Melbourne sample (t=1.981, p=0.049). Although only a small proportion of each sample was currently facing criminal charges, and a small proportion of the Melbourne sample reported having a prison history, nearly one-quarter (23%) of the Sydney sample reported having a prison history.

Chapter four: Results by interview type

Key findings

Characteristics

This section introduces data from 133 web-based surveys and compares these findings to those from the 165 researcher-conducted interviews presented in the previous section. The web-based survey (WBS) sample tended to be younger, and were more likely to be male and living in Melbourne, than the researcher-conducted interview (RCI) sample. The WBS sample was more likely to be self-employed although the samples reported comparable weekly income.

Patterns of cocaine use

Although the majority of both samples reported snorting as their preferred route of administration, a considerable minority of the RCI sample reported injecting as their preferred route of administration. The RCI sample reported using cocaine more frequently than the WBS sample. The RCI sample was significantly more likely to report use of heroin in combination with cocaine. In comparison, the WBS sample was significantly more likely to report use of ecstasy in combination with cocaine. Participant's own home and friend's home were the most commonly reported usual locations for cocaine use. However, the WBS sample were more likely to report using cocaine at pubs, nightclubs and at dance parties/raves.

Reasons for use

Reasons for cocaine use tended to concern mood enhancement, increased sociability and having fun. Participants also reported using cocaine because they were offered it and because they considered it to be a cleaner drug than others available, with a less severe come down associated with its use.

Buying cocaine

The RCI sample reported purchasing cocaine from a greater number of people in the prior six months compared to the WBS. The most commonly reported ways for paying for cocaine by both samples was through paid employment or being shouted by friends. Participants generally reported that the price of cocaine had remained stable over the preceding six months, that it was of medium or high purity, was very easy or easy to purchase and the availability had been stable over the preceding six months.

Harms

A larger proportion of the RCI sample reported experiencing harms as a result of their cocaine use, particularly in relation to occupational/study and financial problems. The problems most commonly reported by the sample as a whole concerned the expense of cocaine and related financial problems. However, over one-third of the sample reported that they had experienced no problems as a result of their cocaine use.

Background

Web-based surveys in drug market research are a new approach to improving recruitment, particularly among professionally employed users who, possibly due to time constraints or concerns such as confidentiality, do not traditionally participate in such research. While web-based surveys are common in market research, they have only recently been used in drug research. Local data suggests that internet usage is highest among younger age groups (ABS 2002) and there is international evidence suggesting that those using the internet have higher incomes and levels of education than non-internet users.[2]

Prior research also suggests that, as an illicit drug research method, web-based surveys are fast and efficient, with participant recruitment, data collection and entry undertaken rapidly, and data analysis and reporting able to commence immediately following the end of data collection (Johnston et al. in press). Further, data collected via web-based surveys appears not to be adversely affected by non-serious or repeat responders (Gosling, Vazire, Srivastava & John 2004). Finally, Nicholson, White & Duncan (1998) suggest that the responses provided on web-based surveys may be more honest and accurate than those given in traditional face-to-face interviews, suggesting that for illicit drug research, such methods may be a solution to some forms of subject-response bias.

Samples from previous illicit drug research using web-based surveys have tended to be well-educated, employed, involved in social activities, and to report good physical and mental health (Duncan, White & Nicholson 2003; Johnston et al. in press; Nicholson, White & Duncan 1998). Patterns of drug use among these samples tend to reflect recreational use (generally well controlled, low to medium frequency), with drug use appearing not to be central to respondents' lives (Duncan, White & Nicholson 2003; Johnston et al. in press; Scholey et al. 2004).

Data from psychological questionnaires (such as personality tests) gathered via web-based surveys suggests that the findings are consistent with those collected via traditional methods (Gosling et al. 2004). Little research has directly compared the sample characteristics and drug use patterns of web-based and traditionally recruited samples. However, a web-based survey was recently included in a study of psycho-stimulant (including cocaine) users in Victoria which also recruited participants through traditional methods (Johnston et al. in press). Compared to participants recruited through the more traditional method of face-to-face interviews, the web-based participants were more likely to be employed or studying, with a considerably lower proportion receiving treatment for their drug use. In terms of drug use, a higher proportion of the web-based survey participants (7%) reported cocaine as their main drug of choice, compared to the traditionally recruited participants (4%). These findings suggest that although traditional recruitment and data collection methods have had difficulty in accessing cocaine users, web-based surveys hold potential for doing so. However, generalisation of the findings of web-based surveys examining illicit drug use to the wider population of illicit drug users needs to be considered within the characteristics of those participating in web-based surveys (Duncan et al. 2003).

Sample characteristics by interview type

The key demographics of the sample by interview type is summarised in Table 16. Although the age range of the two samples was comparable, the web-based sample had a significantly lower mean age (t= 4.723, p<0.001) (Table 16). The WBS participants were also significantly more likely

[2] http://www.ccp.ucla.edu

to be male (χ^2=4.502, p=0.034). These findings are consistent with other research utilising and comparing both web-based and traditional recruitment and data collection methods, with web samples tending to be younger and more likely to be male (Johnston et al. in press). The majority of both samples were single, with no significant difference between the groups in terms of marital status. The majority of both samples reported renting, with a higher proportion of the WBS sample that reported owning their residence. The WBS sample were more likely to reside in Melbourne, with the two cities more evenly represented in the RCI sample (χ^2=16.392, p<0.001).

Table 16: Characteristics of the RCI and the WBS samples.

	RCI (*n*=165)	**WBS (*n*=133)**
Mean age (range)	31 (19-49)	**27* (18-49)**
Male (%)	55	**67***
Single/divorced (%)	73	68
Home owner (%)	14	22
Melbourne (%)	47	***71****
Educated to year 12 (%)	**82***	***99****

**p<0.05*

A larger proportion of the WBS sample had completed all the levels of education than the RCI sample (χ^2=41.599, p<0.001) with 51% of the WBS sample holding tertiary qualifications compared to 31% in the RCI sample.

There were a number of notable differences in employment status between the two samples (Table 17). Whereas nearly two-thirds (63%) of the WBS sample reported being self-employed, only 16% of the RCI sample did so. In comparison, one-third (34%) of the RCI sample reported being employed on a full-time basis, compared to only 8% of the WBS sample (χ^2= 31.372, p< 0.001).

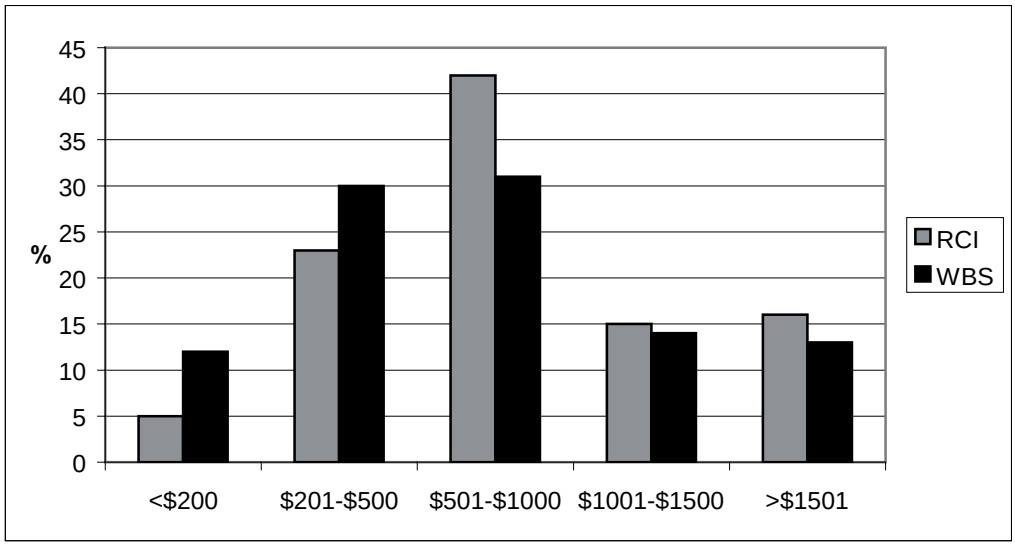
Table 17: Employment status of RCI and WBS samples.

	RCI (*n*=165)	**WBS (*n*=133)**
Unemployed (%)	**12***	3
Full-time employed (%)	**34***	8
Self-employed (%)	16	**63***
Part-time/casual employed (%)	15	14
Student (%)	5	10
Home duties (%)	1	1
Sex work (%)	**6***	0
Crime (%)	1	1
Pension/workers compensation (%)	**9***	0

**p<0.05*

As illustrated in Figure 6, the two samples reported comparable patterns of income, with the largest proportion of both samples reporting earning $501-$1000 per week (before tax) and the second largest proportion of both samples reporting earning $201-$500 per week (before tax).

Figure 6: Weekly income (before tax) of RCI and WBS samples



Patterns of cocaine use

The mean age of first cocaine use was 21 years for both samples (Table 18). Although the majority of both samples reported snorting as their preferred route of administration, a significantly higher proportion of the RCI sample than the WBS sample reported injecting as their preferred route of administration (χ^2=24.441, p<0.001). Only a small proportion of each of the samples reported smoking as their preferred route of administration. The RCI sample reported using larger amounts of cocaine, more frequently than the WBS sample, a median of 10.0 days compared to 4.5 days in the preceding six months (U=6541, p<0.001).

Table 18: Patterns of cocaine use by RCI and WBS samples.

	RCI (*n*=165)	**WBS (*n*=133)**
Median hits per day (*Q* score) (range)	0.36 (0.04-13.5)	0.21 (0.04-11)
Preferred route of administration		
Snorting (%)	72	89
Injecting (%)	**24***	2
Other (smoking/oral) (%)	4	7
Median days cocaine used in the past six months	**10.0***	4.5
Mean age first cocaine use (range)	21 (14-46)	21 (12-38)
Ever used crack cocaine (%)	30	26
Median days crack used in the past six months	3.5	N/A

**p<0.05*

Drugs used in combination with cocaine

Polydrug was the norm for both samples (Table 19). In particular, high levels of alcohol, ecstasy and cannabis use in combination with cocaine were reported. The RCI sample was significantly more likely to report use of heroin in combination with cocaine (χ^2=30.285, p<0.001). In comparison, the WBS sample was significantly more likely to report use of ecstasy in combination with cocaine (χ^2=8.700, p=0.003).

Table 19: Drugs typically used in combination with cocaine by RCI and WBS samples.

	RCI (*n*=165)	WBS (*n*=133)
None (%)	9	8
Alcohol (%)	74	71
Heroin (%)	**24***	1
Ecstasy (%)	55	**74***
Cannabis (%)	55	42
Speed (%)	40	49
Crystal meth (%)	6	15
BZD (%)	14	15

**p<0.05*

Lifetime use of drugs other than cocaine

The samples reported having ever used a wide range of different drug types, with use of speed, crystal methamphetamine, ecstasy and cannabis all commonly reported (Table 20). The RCI sample was significantly more likely to report having ever used heroin (χ^2=37.294, p<0.001). The WBS sample was significantly more likely to report having ever used ketamine (χ^2=8.182, p=0.004).

Table 20: Lifetime use of drugs other than cocaine by RCI and WBS samples.

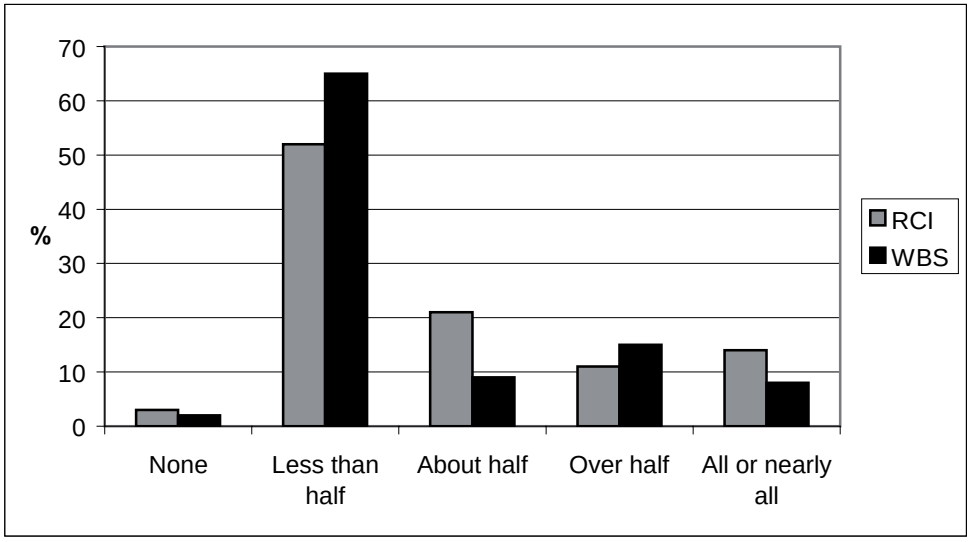
	RCI (*n*=165)	WBS (*n*=133)
Crack (%)	30	26
Speed (%)	95	96
Crystal meth (%)	72	67
Ecstasy (%)	89	98
Ketamine (%)	53	**71***
GHB (%)	35	34
BZD (%)	66	50
Heroin (%)	**54***	16
Cannabis (%)	98	91

**p<0.05*

Extent of cocaine use in participant's social circle

Participants were asked to estimate the proportion and number of people they knew who used cocaine. The RCI sample reported knowing a mean of 21 people, compared to the WBS that reported knowing a mean of 10 people (t=3.887, p<0.001). The majority of both samples reported that less than half of the people they knew used cocaine (Figure 7).

Figure 7: Proportion of people known by RCI and WBS samples using cocaine



Buying cocaine

Participants were asked how much a gram of cocaine usually cost and then how much they actually paid per gram at their most recent purchase (Table 21).

Table 21: Cocaine prices estimated and most recent purchases RCI versus WBS.

		RCI (*n*=165)	WBS (*n*=133)
Estimated price	Median price per gram (range)	$250 ($100-$600)	$280 ($50-$800)
Actual price	Median price per gram (range)	$266.67 ($140-500)	$250 ($80-$800)

The RCI sample estimated a slightly lower median usual price per gram of cocaine compared to the WBS sample (Table 21). While, the RCI actually paid more for cocaine at their most recent purchase, the WBS appear to have overestimated the market price of cocaine. None of these differences were statistically significant.

Usual sources of money to pay for cocaine use

Table 22: Usual sources of money to pay for cocaine (multiple response) for the RCI and WBS samples.

	RCI (*n*=165)	WBS (*n*=133)
Employment (%)	59	**85***
Dealer credit (%)	**15***	7
Government allowance (%)	**21***	4
Gift (shouted) (%)	**69***	43
Borrowed - friends (%)	**14***	5
Borrowed/loaned - parents (%)	7	3
Dealing drugs for personal supply (%)	17	12
Dealing drugs for profit (%)	15	10
Traded for stolen goods (%)	5	1
Traded for goods (%)	**6***	0
Traded for other drugs (%)	9	8
Fraud (%)	2	0
Property crime (%)	**4***	0
Sex work (%)	**9***	0
Gambling (%)	5	5
Embezzlement (%)	1	1

*$p<0.05$

The most commonly reported ways for paying for cocaine by both samples was through paid employment or being shouted by friends (Table 22). The proportion of the WBS paying for their cocaine with their wages was significantly more than the RCI sample (χ^2=22.402, p<0.001). In comparison, the RCI sample were significantly more likely to report being shouted cocaine (χ^2=19.304, p<0.001). Further, the RCI sample was significantly more likely to report receiving credit from dealers (χ^2=4.403, p=0.036), paying for their cocaine with a government allowance (χ^2=17.088, p<0.001), borrowing money from friends (χ^2=6.502, p=0.011), trading goods for cocaine (χ^2=6.623, p=0.01), paying for cocaine with the proceeds of property crime (χ^2=4.107, p=0.043) and sex work (χ^2=10.091, p=0.001).

Usual location of cocaine use

The two samples reported typically using cocaine in similar places, with home and friend's home widely reported (Table 23). However, the WBS sample were significantly more likely to report using cocaine at nightclubs (χ^2=10.481, p=0.001) and at dance parties/raves (χ^2=16.163, <0.001) than the RCI sample.

Table 23: Usual locations of cocaine use for RCI and WBS samples.

	RCI (*n*=165)	WBS (*n*=133)
Home (%)	64	57
Friend's Home (%)	58	66
Street/public place (%)	13	9
Dealer's Home (%)	15	10
Workplace (%)	7	6
Pub (%)	21	32
Nightclub (%)	44	**63***
Restaurant/café (%)	11	6
Car (%)	18	23
Dance Party/rave (%)	18	**39***
Private Party (%)	36	46
Injecting Centre (%)	8	0

*$p<0.05$

Most recent cocaine purchase

Participants were asked about a number of the details surrounding their most recent cocaine purchase. The location of the most recent purchase is presented in Table 24. A range of purchase locations was reported by both samples, with private locations such as own home, friend's home and dealer's home the most commonly reported location of most recent cocaine purchase.

Table 24: Location of most recent cocaine purchase by RCI and WBS samples.

	RCI (*n*=165)	WBS (*n*=133)
Home (%)	17	15
Friend's Home (%)	19	**36***
Street/public place (%)	**14***	6
Dealer's Home (%)	**24***	15
Workplace (%)	2	2
Pub/bar (%)	8	6
Nightclub (%)	5	5
Restaurant/café (%)	2	1
Car (%)	3	3
Dance Party/rave (%)	2	5
Private Party (%)	3	3

*$p<0.05$

Both samples most commonly reported purchasing cocaine from friends or family members the most recent time they purchased cocaine, with the RCI sample also reporting both home-based and mobile dealers (Table 25). The majority of both samples reported having purchased other drugs from these types of dealers, most commonly ecstasy, speed and cannabis. The importance of social networks is again apparent in the details of how participants were first introduced to the person they had most recently purchased cocaine from, with over half of both samples reporting that they had done so through friends and/or family.

Table 25: Circumstance of most recent cocaine purchase by RCI and WBS samples.

	RCI (*n*=165)	**WBS (*n*=133)**
Average number of dealers (range)	**2.34* (0-12)**	1.80 (0-12)
Relationship with most recent dealer:		
Friends/family (%)	44	**64***
Workplace (%)	2	4
Mobile dealer (%)	15	6
Home-based dealer (%)	**20***	5
Street dealer (%)	9	2
Pub-based dealer (%)	1	0
Other drugs supplied:		
None (%)	48	31
Speed (%)	30	**58***
Meth base (%)	9	**18***
Crystal meth (%)	25	22
Heroin (%)	**13***	1
Ecstasy (%)	64	88
Cannabis (%)	39	30
Length of supply relationship:		
First time (%)	22	29
Less than year (%)	35	42
More than one year (%)	**42***	29

*$p<0.05$

Table 25 continued.

	RCI (*n*=165)	WBS (*n*=133)
How introduced:		
Family/friends (%)	66	69
Other drug supply or use (%)	7	4
Through other drug users	8	7
Workplace (%)	8	0
Internet (%)	0	2
Approached at an entertainment venue (%)	1	0
Private party (%)	1	3
Jail (%)	1	0
Approached on street (%)	3	2

Consequences of cocaine use

Cocaine-related harms

A larger proportion of the RCI sample reported experiencing harms in each of the four domains explored, and were significantly more likely to report occupational/study problems (χ^2=8.717, p<0.001) and financial problems (χ^2=17.338, p<0.001) than the WBS sample (Table 26).

Table 26: Cocaine-related harms experienced by RCI and WBS samples.

	RCI (*n*=165)	WBS (*n*=133)
Occupational/study (%)	**18***	6
Relationship/social (%)	19	11
Financial (%)	**32***	11
Legal/police (%)	6	2

**p<0.05*

Both RCI and WBS participants were asked to describe up to three main problems that they considered being associated with their own cocaine use (if any). The data from the entire sample (N=298) was coded and is presented here. The most commonly cited problems concerned the expense of cocaine and related financial problems (*n*=119). Interestingly, the second most common response to this question was that participants had experienced no problems as a result of their cocaine use (*n*=101). However, substantial minorities of the sample reported experiencing cocaine dependence or addiction (*n*=42), acute physical problems (for example, sleep and appetite/weight problems) (*n*=32), and physical problems as a consequence of route of administration (for example, nasal complications as a result of snorting, and/or vein problems as a result of injecting cocaine) (*n*=26). Participants also experienced anxiety as a result of their cocaine use (*n*=22), and problems associated with using cocaine of poor quality, unknown strength, and/or quality (*n*=22).

Reasons for cocaine use

Both RCI and WBS participants were also asked to describe up to three main reasons that they used cocaine (if any). The data from the entire sample (N=298) was coded and is presented here.

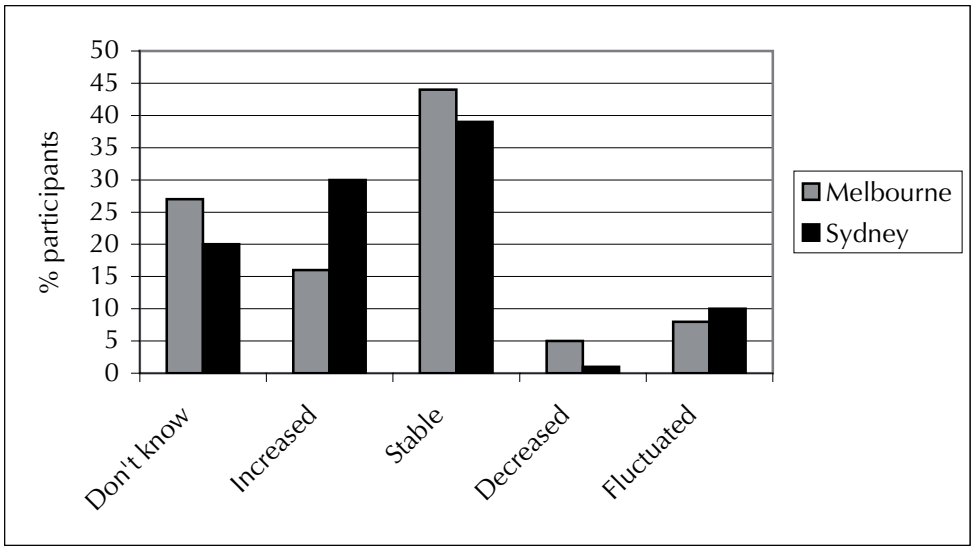
The most commonly given reasons (around 30% of the sample) for cocaine use were enhanced mood, euphoria and/or an enjoyable feeling (*n*=86), increased sociability (*n*=80), the high/rush/buzz (*n*=79) and having fun/good time (*n*=75). Other frequently mentioned reasons for using cocaine were availability (i.e., taken when it was offered) (*n*=57), that it was considered a clean, short-acting drug with a less severe comedown than other drugs (*n*=55), that it gave participants more energy and the ability to stay awake longer (*n*=55) and increased confidence (*n*=49). Relaxation/escapism (*n*=29), setting/peer influence (*n*=28), novelty/special occasion (*n*=23), enjoys/likes the effects of cocaine (*n*=22) and 'better than other drugs' (*n*=22) were all given as reasons for using cocaine by small proportions of the sample.

Price, purity and availability of cocaine

Participants were asked a number of questions regarding the current price, purity and availability of cocaine, and how these characteristics had changed, if at all, over the preceding six-month period. The data from the entire sample (N=298) is presented here, with comparisons made between those participants residing in Melbourne (*n*=171) and those residing in Sydney (*n*=127). Those RCI participants that reported that changes had recently taken place in the cocaine market were given the opportunity to comment on why such changes may have taken place. These reports are also presented here where appropriate.

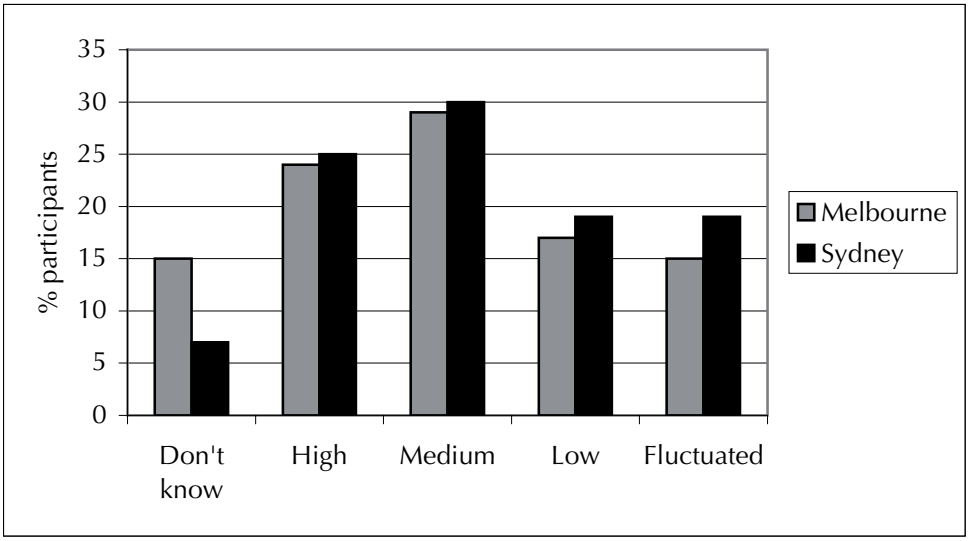
The largest proportion of both samples reported that the price of cocaine had remained stable over the preceding six months (Figure 8). Increases in cocaine price tended to be attributed to decreases in the availability of cocaine (often considered to be due to seasonal variation) and/or to changes in the purity and quality of cocaine (with higher prices being charged for better quality cocaine).

Figure 8: Participants' reports of recent changes in price of cocaine (by city)



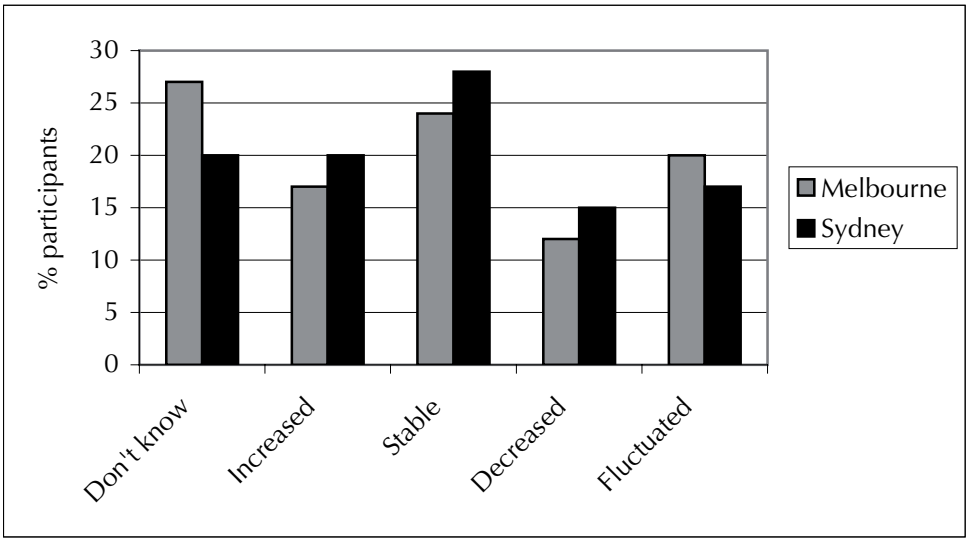
Participants from both cities tended to report that the current purity of cocaine was medium or high (Figure 9). It is important to acknowledge, however, that subjective reporting of cocaine purity is likely to be influenced by factors such as the participant's level of tolerance and route of administration.

Figure 9: Participants' reports of current purity of cocaine (by city)



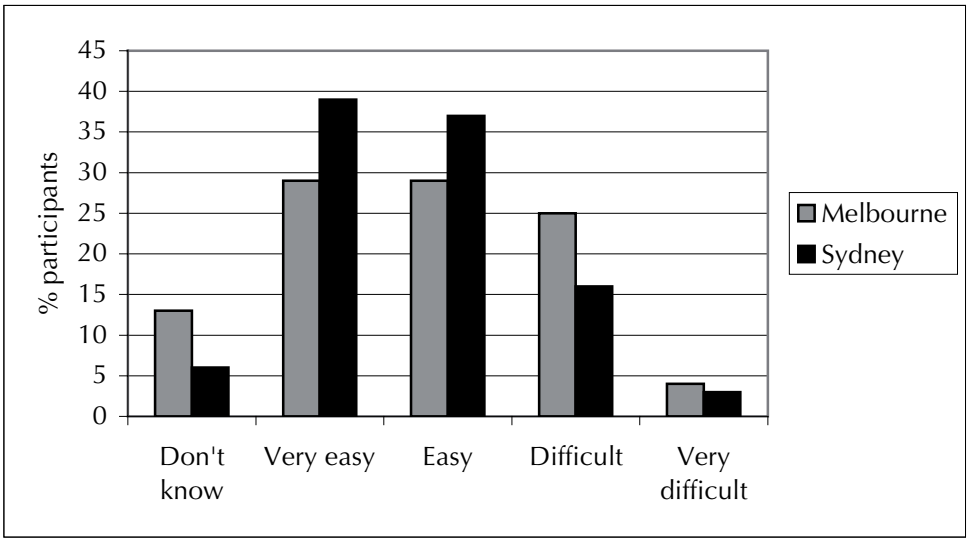
The reports of changes in cocaine purity over the preceding six months were similarly variable across the two cities (Figure 10). Increases in the purity of cocaine tended to be attributed to increased availability, with decreases in cocaine purity most commonly attributed to cutting by dealers. Fluctuations in cocaine purity were considered to be a result of cutting by dealers, the nature of overseas markets and/or the nature of source (i.e. different dealers).

Figure 10: Participants' reports of changes in cocaine purity (by city)



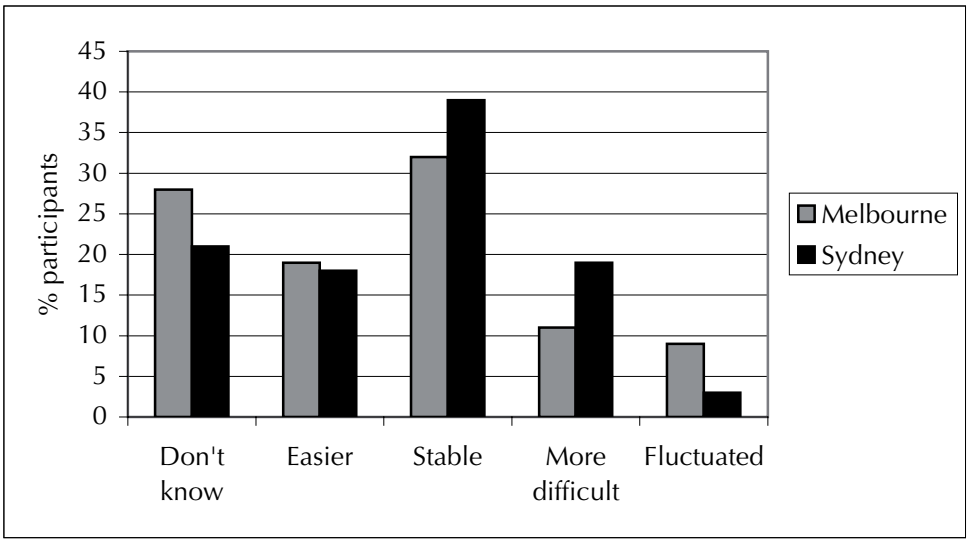
Both samples tended to report that cocaine was currently either very easy or easy to obtain (Figure 11).

Figure 11: Participants' reports of current cocaine availability (by city)



The largest proportion of both samples reported that the availability of cocaine had remained stable over the preceding six months (Figure 12). Increased cocaine availability was attributed to changes in suppliers and decreases in demand for cocaine, while the most frequently given reason for decreases in cocaine availability concerned law enforcement activity (i.e. busts and/or arrests).

Figure 12: Participants' reports of changes in cocaine availability (by city)



Chapter five: Results by socio-economic status

Key findings

Characteristics

The combined sample (*n*=298) was divided into three socio-economic groups: higher socio-economic status group (university educated, professionals earning over $52,000 per annum) who comprised 11% of the sample (*n*=33); a socially integrated group (not high SES but employed, student or home duties) who comprised 71% of the sample (*n*=211); and socially marginalised (unemployed, other benefits, criminal, sex workers) who comprised 18% of the sample (*n*=52). High SES users were older, more likely to be married or de facto and own their own homes. Marginalised users were more likely to live in Sydney.

Patterns of use

High SES and integrated users (*Background* refers for definition) had similar cocaine use and cocaine procurement patterns. The marginalised group used significantly larger amounts cocaine more frequently and mainly by injection compared to the other two groups who predominantly snorted cocaine. Marginalised cocaine users were more likely either to use cocaine alone or in combination with either heroin or benzodiazepines. High SES and integrated cocaine snorters were more likely to use cocaine in combination with alcohol or ecstasy.

Buying cocaine

Higher SES and integrated respondents tended to report using cocaine in private settings or at entertainment venues such as nightclubs. They reported purchasing cocaine in private settings, rather than at entertainment or other public venues. Marginalised subjects also used cocaine in private settings but were more likely to purchase their cocaine in public places. Higher SES and integrated respondents paid for their cocaine use through the own paid employment or received cocaine as a gift. Marginalised users financed their cocaine use through a wider range of sources including government benefits, drug dealing and sex work. Marginalised users had a larger number of suppliers who they knew well and had been introduced to through a mixture of social contacts and other drug market involvement. High SES and integrated users had smaller dealer networks, who were introduced socially and the history of supply was briefer (less than one year) than those of marginalised users. Half also purchased ecstasy from their cocaine supplier. The analysis of other drugs purchased from cocaine dealers indicates very little overlap, at least at the retail level, between heroin supply and also the supply of crystal methamphetamine. Suppliers to the higher SES and integrated group also provided ecstasy and speed powder.

Harms

Conclusions regarding the relationship between cocaine-related harms and socio-economic status were limited by the small sample of higher SES participants and the fact that cocaine dependence, HIV risk, crime and social functioning questions were not included in the web based survey where high social functioning respondents were over represented. Nevertheless, cocaine-related harms accrued disproportionately to the marginalised group due to the greater frequency of cocaine use. These included relationship, financial and legal problems, high rates of cocaine dependence, exposure to greater HIV risk due to shared injecting equipment, poor social functioning and higher levels of criminal activity.

Background

Cocaine use in Australia has been associated in the public mind with affluent, high socio-economic status individuals. The SES of an individual is determined by the economic, social and physical circumstances of their lives and work. There is a strong relationship between socio-economic status and a range of health and welfare outcomes including drug use (Hayes et al. 2002; Siahpush & Borland 2001). The three key variables which define an individual's SES are income, education and occupation (ABS 2001). High socio-economic status was defined in this study as: 1) income in the top 5% of the entire Australian population ($52,000 per annum or greater); 2) education to university degree or higher and 3) occupation at skill level 1 in the Occupational Major Groups (Professional and Managerial/Administrator). Those who were not part of the high SES group were classified as either socially 'integrated' (employed, students, home duties) or socially 'marginalised' (unemployed, other government benefit, sex worker, criminal). Personal and internet interviews both contributed data to this analysis.

Sample characteristics

The key demographic features of the sample by socio-economic group is summarised in Table 27. Main occupation is summarised in Table 28.

Table 27: Sample characteristics by socio-economic group.

	High SES (***n*=33**)	**Integrated** (***n*=211**)	**Marginalised** (***n*=52**)
Mean age (range)	**34 (24-45)***	27 (18-49)	30 (19-49)
Male (%)	66	62	50
Internet survey (%)	61	50	**10***
Married/de-facto (%)	**48***	30	29
Home owner (%)	**49***	14	12
Melbourne (%)	9	78	**13***
Sydney (%)	14	63	**24***

**p<0.05*

Higher socio-economic status individuals were significantly older compared to the other two groups (t=5.963, p<0.001), more likely to be married/de facto or with children (χ^2=9.309, p=0.03) and more likely to be home owners (χ^2=27.617, p=0.001). There were no significant gender differences between the groups. The marginalised socio-economic group was significantly less likely to have completed an internet interview compared to the other two groups (χ^2=38.681, p<0.001) and more likely to live in Sydney (χ^2=5.903, p=0.02). Education and income were not compared because differences were attributable to group definitions.

Table 28: Employment status by socio-economic group.

	High SES (*n*=33)	**Integrated (*n*=211)**	**Marginalised (*n*=52)**
Self-employed (%)	**61***	42	N/A
Full time (%)	39	25	N/A
Part time (%)	-	21	N/A
Student (%)	-	10	N/A
Home duties (%)	-	1	N/A
Unemployed (%)	N/A	N/A	46
Sex work (%)	N/A	N/A	19
Crime (%)	N/A	N/A	6
Pension (%)	N/A	N/A	29

**p<0.05*

Employment covered a diverse range of occupations and industries in both the integrated and high SES groups (Table 28). In the high SES group, property and business services, was the largest employer group (24%). In the integrated group, the hospitality industry was the largest employer (16%). Higher SES users were significantly more likely to be self-employed compared to the integrated group (χ^2=4.039, p=0.04).

Patterns of cocaine use

Table 29: Cocaine use by socio-economic group.

	High SES (*n*=33)	**Integrated (*n*=211)**	**Marginalised (*n*=52)**
Median hits per day (*Q* score) (range)	0.19 (0.04-2.17)	0.24 (0.04-11)	**0.64 (0.04-13.5)***
Preferred route of administration			
Snorting (%)	94	87	37
Smoking (%)	3	3	4
Injecting (%)	-	7	**60***
Median days cocaine used in the past six months (range)	5 (1-30)	6 (1-180)	**35 (1-180)***
Mean age first cocaine use (%) (range)	**24 (16-38)***	21 (13-46)	20 (12-30)
Ever used crack cocaine (%)	15	28	27
Median days crack used in the past six months (range)	0	2 (1-40)	5 (1-90)

**p<0.05*

The marginalised group used significantly larger amounts of cocaine (U=3634.5, p<0.001) mainly by injection and more frequently (U=3508.5, p<0.001) compared to the other two groups (Table 29). The higher SES group started cocaine use later in life (t=3.040, p=0.004) and reported less experience of crack cocaine, although this was not statistically significant within the overall low levels of crack cocaine use in the sample.

Table 30: Usual locations of cocaine use by socio-economic group (multiple response).

	High SES (*n*=33)	**Integrated (*n*=211)**	**Marginalised (*n*=52)**
Home (%)	76	59	62
Friend's Home (%)	58	67	42
Street/public place (%)	3	12	14
Dealer's Home (%)	3	12	**21***
Workplace (%)	0	7	12
Pub/bar (%)	**42***	27	12
Nightclub (%)	55	59	**25***
Restaurant/café (%)	9	10	2
Car (%)	18	21	12
Dance Party/rave (%)	15	**33***	14
Private Party (%)	46	45	**19***
Injecting Centre (%)	0	1	**25***

*$p<0.05$

The higher SES usually used cocaine at home, a friend's home, a nightclub, private parties or at a pub or bar (Table 30). Cocaine use in the workplace was not commonly reported by any group. Integrated users used cocaine at friends' homes, their own homes, nightclubs, private parties, dance parties and pubs or bars. Marginalised users also used at home, friend's home, nightclubs, the Medically Supervised Injecting Centre in Sydney and at their dealer's home.

Table 31: Other drugs used in combination with cocaine (multiple response).

	High SES (*n*=33)	Integrated (*n*=211)	Marginalised (*n*=52)
None (%)	0	7	**20***
Alcohol (%)	91	72	**27***
Heroin (%)	0	3	**39***
Ecstasy (%)	58	65	**17***
Cannabis (%)	42	44	29
Amphetamine (%)	33	37	33
Crystal/ice (%)	6	13	8
Ketamine/GHB (%)	3	6	2
Benzodiazepines (%)	0	3	**13***

**p<0.05*

All statistically significant differences in drugs used in combination with cocaine occurred when the marginalised group was compared to the other two groups (Table 31). Firstly, marginalised users were more likely to solely use cocaine (χ^2=10.474, p=0.001) or to use it with heroin (χ^2=65.507, p<0.001) or benzodiazepines (χ^2=10.674, p=0.001). They were significantly less likely than high SES or integrated users, to use cocaine in combination either with alcohol (χ^2=43.538, p<0.001) or ecstasy (χ^2=37.775, p<0.001).

Table 32: Other illicit drug in the last 6 months.

	High SES (*n*=13)		Integrated (*n*=110)		Marginalised (*n*=47)	
	(%)	Median days used (range)	(%)	Median days used (range)	(%)	Median days used (range)
Speed powder	31	2 (1-5)	67	6 (1-150)	53	**24 (1-180)***
Crystal meth	31	18 (1-25)	46	4 (1-50)	40	10 (1-180)
Ecstasy	54	8 (4-20)	**84***	**12 (1-150)***	23	4 (1-24)
Ketamine	23	5 (2-15)	35	5 (1-104)	13	3 (1-24)
GHB	17	9 (6-12)	25	2 (1-120)	13	4 (1-12)
Heroin	0	0	10	10 (1-140)	**77***	**90 (1-180)***
Benzodiazepines	31	12 (1-25)	46	5 (1-180)	57	**40 (2-180)***
Cannabis	62	20 (2-60)	77	30 (1-180)	60	56 (1-180)

**p<0.05*

When compared to the other socio-economic groups, the integrated group was more likely to have used ecstasy (χ^2=54.373, p<0.001). The marginalised group reported greater frequency of speed (U=632, p=0.005) and benzodiazepines (U=286.5, p<0.001) use and more heroin use (χ^2=76.936, p<0.001).

Buying cocaine

Table 33: Usual sources of money to pay for cocaine (multiple response).

	High SES (*n*=33)	Integrated (*n*=211)	Marginalised (*n*=52)
Employment (%)	**85***	**81***	**17***
Dealer credit (%)	3	11	19
Government allowance (%)	3	6	**48***
Gift (%)	**36***	55	79
Borrowed - friends (%)	3	8	**23***
Borrowed - parents (%)	0	4	14
Dealing cocaine (%)	6	13	**27***
Dealing other drugs (%)	6	10	**25***
Stolen goods (%)	0	2	10
Traded for goods (%)	0	2	12
Traded for drugs (%)	0	8	15
Fraud (%)	0	1	4
Property crime (%)	0	1	12
Sex work (%)	0	1	**23***
Gambling (%)	0	5	10
Embezzlement (%)	0	1	0

*$p<0.05$

The principal sources of money for respondents' cocaine use in the high SES and integrated groups were their own paid employment or gifts from friends (Table 33). There were a range of sources of money for the cocaine use in the marginalised group outside of gifts, namely government allowances, dealing cocaine, dealing other drugs, sex work and money borrowed from friends.

Table 34: Most recent places where cocaine was bought by socio-economic group.

	High SES (*n*=33)	**Integrated (*n*=211)**	**Marginalised (*n*=52)**
Home (%)	21	14	8
Friend's Home (%)	**39***	23	12
Street/public place (%)	3	4	**31***
Dealer's Home (%)	**9***	16	25
Workplace (%)	0	2	0
Pub/bar (%)	3	6	4
Nightclub (%)	0	6	2
Restaurant/café (%)	1	1	0
Car (%)	1	2	2
Dance Party/rave (%)	0	4	0
Private Party (%)	1	3	0

**p<0.05*

High SES users tended to purchase their cocaine at home or at a friend's place (Table 34). Integrated users also purchased at their own or friend's home but also at the home of their dealer. In contrast to predominantly private locations, marginalised users purchased cocaine in public places or at their dealer's residence.

Table 35: Dealer profile by socio-economic group.

	High SES (*n*=33)	**Integrated (*n*=211)**	**Marginalised (*n*=52)**
Median number of dealers (past 6 months) (range)	2 (1-4)	2 (1-12)	**3 (1-12)***
Relationship with most recent dealer			
Friends/family (%)	70	66	**23***
Workplace (%)	3	3	2
Mobile dealer (%)	9	8	14
Home-based dealer (%)	6	10	21
Street dealer (%)	3	1	19
Pub based dealer (%)	0	0	2

**p<0.05*

Table 35 continued.

	High SES (*n*=33)	Integrated (*n*=211)	Marginalised (*n*=52)
Other drugs supplied			
None (%)	48	35	49
Speed (%)	12	29	15
Meth base (%)	6	8	6
Crystal meth (%)	6	14	10
Heroin (%)	0	1	**14***
Ecstasy (%)	46	46	**17***
Cannabis (%)	12	20	14
Length of supply relationship			
First time (%)	30	29	**5***
Less than year (%)	47	38	33
More than one year (%)	23	33	**58***
How introduced			
Family/friends (%)	89	73	**44***
Other drug supply or use (%)	0	8	**40***
Workplace (%)	4	**12***	2
Internet (%)	4 (*n*=1)	1 (*n*=1)	0
Entertainment venue (%)	0	1	2
Private party (%)	0	3	0
Jail (%)	0	0	2
Approached on street (%)	0	0	9

*$p<0.05$

Marginalised users purchased from significantly more individual dealers when compared to the other two social groupings (U=2,299, p<0.001) (Table 35). Both high SES and integrated users made their most recent purchase from a friend or family member, while marginalised users were more likely to report using a dealer (56% in total). There were no particular patterns in the type of dealers except that there was very little club or pub based dealing and cocaine transactions at workplaces were also rare. Half the suppliers of cocaine to the high SES and integrated groups also supplied ecstasy. There appeared to be little overlap between heroin and cocaine supply to the marginalised group, at least at this retail level. Marginalised users had the longest established relationships with their cocaine suppliers. Introduction to dealers was mainly through family/friends in the high SES and integrated group, or through other drug supply in the marginalised group (either heroin or amphetamine). Very few dealers were contacted at nightclubs or pubs and bars.

Cocaine-related and other harms

Table 36: Cocaine-related harms by socio-economic group.

	High SES (*n*=33)	Integrated (*n*=211)	Marginalised (*n*=52)
Occupational/study (%)	9	15	8
Relationship/social (%)	6	13	**29***
Financial (%)	6	20	**44***
Legal/police (%)	3	3	**10***
Treatment sought (%)	0 (*n*=13)	7 (*n*=105)	15 (*n*=47)
Cocaine dependence diagnosis (%)	15 (*n*=13)	27 (*n*=104)	**60 (n=47)***
HIV risk taking score (median) (range)	5.5 (0-10)	6.0 (0-19)	**11.0 (1-25)***

**p<0.05*

Socially marginalised users were more likely to report financial (χ^2=17.366, p<0.001), relationship (χ^2=9.021, p=0.003) and legal problems (χ^2=4.979, p=0.03) from cocaine use compared to the other groups (Table 36). Note the first four items in table 36 were asked in both the personal and internet interviews. The final three items were only asked in the personal interviews. Statistically, they were no more likely to have sought treatment than the other groups (p=0.07), although this may have been due to the overall low levels of treatment seeking in the sample. Marginalised users were significantly more likely to be classified as cocaine dependent than the other groups based on a cut-off value of three on the SDS (χ^2=17.564, p<0.001). They also reported the highest level of HIV risk driven by sharing of injecting equipment (χ^2=27.995, p<0.001).

Social Functioning

As discussed previously, social functioning was measured using the SF-12 which assesses physical and mental disability compared to general population norms. Note that the internet interview did not include questions about physical and social well-being so the analyses are limited to subjects who were personally interviewed.

Table 37: Social functioning by socio-economic group.

	High SES (*n*=13)	Integrated (*n*=105)	Marginalised (*n*=47)
Severity	Physical Disability		
None (%)	92	70	**51***
Mild (%)	8	19	26
Moderate (%)	0	10	17
Severe (%)	0	1	6

**p<0.05*

Table 37 continued.

	High SES (*n*=13)	Integrated (*n*=105)	Marginalised (*n*=47)
Severity	Mental Disability		
None (%)	**85***	39	**11***
Mild (%)	0	22	9
Moderate (%)	15	29	40
Severe (%)	0	10	40

**p<0.05*

Marginalised cocaine users had significantly higher levels of physical disability (χ^2=7.009, p=0.008) and mental impairment (χ^2=16.899, p<0.001), with 80% recording moderate to severe levels of mental disability (Table 37).

Table 38: Criminal activity in the last month.

	High SES (*n*=13)	Integrated (*n*=105)	Marginalised (*n*=47)
Property crime (%)	0	2	**15***
Dealing (%)	8	32	**49***
Fraud (%)	0	2	4
Violent crime (%)	0	3	2
Mean crime score	0.23	0.61	**1.79***
Current charges (%)	0	2	**21***
Prison history (%)	0	3	**51***

**p<0.05*

Within the constraints of under-reporting of criminal activity, both high SES and the integrated groups reported low levels of criminal activity outside of their illicit drug use (Table 38). The high SES group had no contact with law enforcement and no current criminal charges or history of imprisonment. The marginalised group reported significantly greater levels of crime predominantly dealing of drugs (χ^2=5.478, p=0.02) and property crime (χ^2=11.354, p<0.001).

Chapter six: Analysis of supply

Key findings

Twenty for-profit dealers were identified, 15 of whom participated in personal interviews and 5 who submitted web-based surveys. These dealers were predominantly male (90%), had an average age of 31 years, were educated to year 12 or higher and tended to be employed with above average incomes. They used more cocaine more frequently than the sample as a whole, with 80% classified as cocaine dependent (according to the SDS). This sub-sample of dealers also reported greater levels of problems and higher rates of treatment seeking than the dealer sample as a whole. In fact, the dealers had more contact with treatment services than with law enforcement.

There were very few respondents who reported selling only cocaine. Most dealt in a range of other drugs, with ecstasy most commonly reported. The first drug dealt was not cocaine in most cases but was usually either ecstasy or cannabis. Most had been dealing cocaine for an average of eight years. The main reasons for starting dealing were equally attributed to making money (financial) or social reasons.

Reported returns were highest for importers and suppliers to injecting drug users in Sydney. The retail mark-up on grams of cocaine sold to recreational cocaine users in Sydney and Melbourne averaged 22%. Returns on partial ounces averaged 35% and full ounces 42%.

Two distinct types of dealer were interviewed at both retail and middle levels, the first supplying IDU (although with very little overlap with heroin dealing), the second supplying a party drug market (i.e. ecstasy/ketamine/GHB) but with little overlap with amphetamine powder or crystal. Perceptions of risk attached to dealing were not high and tended to decrease as dealers moved up the supply chain. The most important sources of risk were considered to be law enforcement at the retail/street level and cocaine users. The main (and mostly successful) risk management technique reported was to limit the number and nature of customers. None of the dealers interviewed were currently involved in wholesale or high level trafficking, although those who had such exposure described a shallow market with very short supply chains through which large amounts of cocaine diffused rapidly following importation from kilogram to ounces to retail level grams and caps.

Background

Very few published studies have attempted to directly interview for-profit drug suppliers compared to studies of drug users and lower-level street dealers (Pearson & Hobbs 2003). There are inherent limitations in research which seeks to directly collect data from operating drug dealers. Sampling for such studies may be highly selective as successful or higher level dealers are more likely to refuse to participate than lower level dealers. Convicted or arrested dealers may provide a more convenient source of subjects, although they are by definition 'unsuccessful' and may not reflect current market conditions (Reuter & Haaga 1989). Price, purity, profit, distribution, brokerage and storage are sensitive data, which even in the legitimate commercial world, are usually held 'in-confidence'. Law enforcement agencies may also be reluctant to provide data that might compromise on-going or future investigations. Finally, reports from current dealers have the potential to be deliberately distorted to mislead researchers and law enforcement or for any number of other motivations. Thus, much supply-side research in illicit drug markets has tended to be theoretical and empirical investigations are rare.

Drug suppliers or dealers have been categorised by level (high level wholesalers, middle level brokers and low level retailers), activity (finance, manufacture, importation, distribution), social organisation (free-lance, kinship, communal, corporate) and market type (street, home-based, delivery, regional, national, trans-national) (Hough & Natarajan 2000). The focus of much work, particularly from the US, has been on street based, retail level crack cocaine dealing with relatively little work done on other types of cocaine suppliers. A study of middle class cocaine dealers in the San Francisco Bay Area recruited eighty former wholesale suppliers (i.e. they mainly sold to other dealers) through studies conducted over a thirteen year period (1974-1987) using snowballing chain referral techniques (Waldorf & Murphy 1995; Waldorf, Murphy & Lauderback 1994). This sample was well-educated, male, white with an average age of 37 years. Several subjects were professionally employed as accountants, engineers and stock brokers, who sold cocaine to tight networks of users and dealers. All except one also used cocaine. Their reasons for starting cocaine dealing were a mixture of making money, procuring cocaine for their own use and social status. These dealers did not perceive law enforcement as any real threat and felt they could reduce this risk through tightly controlling their networks of buyers. The dealers were more concerned about unhappy buyers, informants and possible rip-offs. Important factors in dealers' decisions to stop selling were the physical, psychological and social problems associated with their own cocaine use.

The perceptions, tolerance and management of risk are important predictors of the nature and extent of individual participation in cocaine supply. Dorn, Oette & White (1998) interviewed fifteen individuals convicted of large scale drug smuggling into the United Kingdom, some involving cocaine through air passenger luggage. They found that the risk associated with smuggling 'bifurcated' or was divided into two distinct types associated with two distinctive organisational patterns. 'Strategic risk' was associated with well-capitalised, risk-averse planners and organisers financed from family, business or other criminal activity. The drug smugglers invested part of their capital in trusted/fearful lieutenants to cut-out contact with unfamiliar/ unreliable operators. This group accepted the loss of shipments but carried little personal risk. Considering the relatively low dollar value of smuggled shipments, the occasional loss was not financially significant. 'Tactical risk' accrued to those with operational involvement other than planning, organising or financing. These players were typically risk-tolerant or possibly even risk-naïve and lacked start up capital. They carried the greatest risk of personal apprehension. Even when they built up a capital base they continued to operate at the tactical level and made no attempt to operate at the strategic risk level. The overall conclusion in this work by Dorn, Oette & White (1998) was that those most likely to be responsible for most drug importation by weight were at 'very much lower' risk of apprehension than the drugs themselves or those that handled them at an operational level.

The most detailed analysis of so-called 'middle level' drug markets published to-date was based on seventy case studies of individuals and criminal networks involved in polydrug distribution in northern England (Pearson & Hobbs 2001, 2003). The case studies were generated from fifty prison interviews with convicted dealers. They found that the so-called middle market was shallow and non-hierarchical and that most dealers could be described as 'middle level'. The supply chains they identified were much shorter than expected. Small, flexible networks consisted of independent entrepreneurial traders motivated by self-interest with little loyalty to other network members. The middle market acted as a multi-drug clearing-house where single commodity wholesale/import supplies were distributed to single commodity retail level dealers. An important exception to this pattern was polydrug sales among suppliers to the dance party scene.

Sample characteristics

Twenty respondents reported selling cocaine for profit in the past 12 months in personal interviews (*n*=15) or the web-based survey (*n*=5). A further 52 respondents had supplied cocaine for social reasons or to support their own use and made no money from such dealing (Table 39). Dealers of other drugs (ecstasy *n*=2, and cannabis *n*=7) were not included in this analysis.

Table 39: Suppliers identified by personal interviews and web-based survey by reason for supplying.

	Sydney	Melbourne	Web-based	Total
Social/Habit	26	8	18	52
For profit	11	4	5	20
Total	37	12	23	72

The following analysis will focus on the 20 participants who reported 'for-profit dealing' activity. The demographics of this sub-group appear in Table 40.

Table 40: Characteristics of for-profit dealers (*n*=20).

Age	31 years (range 21 – 41 years)
Sex	90% male
Education	65% Year 12 or higher
Employment	85% employed
Income	40% above $52,000 per annum
Cocaine use	100% in past six months
Median days used	35 days in the last 180 (range 6-180)
Crack cocaine use	15% in past six months
Injecting	25% in the past six months

For-profit cocaine dealers were more likely to be male than non-dealing cocaine users and also to be employed with incomes above $52,000. All dealers used cocaine and reported use levels significantly higher than the sample (*n*=278) as a whole (U=986.5, p<0.001). Seven out of the 15 dealers personally interviewed had reported low level involvement in the importation of cocaine mainly via the postal system (*n*=4), one via sea cargo and another via air passengers (See Appendix B for more information).

Table 41: Other drugs used and sold by cocaine dealers (*n*=20).

Other Drugs	Used	Sold
No other drugs (%)	10	10
Ecstasy (%)	60	55
Cannabis (%)	50	35
Speed (%)	40	35
Ketamine (%)	20	25
Ice/crystal (%)	20	15
Benzodiazepines (%)	40	10
GHB (%)	25	10
Heroin (%)	20	10
Crack Cocaine (%)	20	0

Table 41 compares the drugs (other than cocaine) used by cocaine dealers and the drugs they sold. Very few solely sold or used cocaine. The largest overlap with other drug use and dealing was ecstasy. Drugs that were not commonly sold by this sample of cocaine dealers included heroin, GHB, benzodiazepines and ice/crystal. No dealers reported selling crack cocaine.

Dealing history

The cocaine dealers reportedly sold their first drug at around 20 years old (range 12-34 years) and most were introduced to cocaine dealing later in their dealing career at an average age of 23 years (range 14-35 years). Thus, based on the average age of the group, they had an average history of dealing cocaine of eight years. The first drug ever dealt was in most cases either ecstasy (31%) or cannabis (31%), with only 10% reporting cocaine as the first drug they had ever dealt. Most were introduced to dealing through close friends (33%), some through family members (20%) or other connections such as their own dealers, fellow sex workers or flatmates. The dealers were asked why they started to deal cocaine. Equal proportions nominated money (43%) or social reasons (i.e. to help out friends, networking) (43%). Other influences included family (14%), to support their own use or habit (14%), while one dealer reported he felt he would lose clients for other drug supply if he did not run a 'one-stop' shop. The average number of clients each dealer had varied according to the frequency of dealing, with dealers who dealt on a weekly basis supplying an average of seven users (range 1–30) and those who dealt monthly supplying an average of three users (range 1-5).

Price and profit

Participants were asked about the last two times they sold cocaine (i.e. price, quantity), the profit they made on transactions and whether the cocaine was cut-down or diluted before sale. These questions permitted very specific estimates of the prices and effective rate returns adjusted for cutting across a range of quantities in each city. Transaction cost data (i.e. concealment, storage costs) were not collected, although these appeared to be very minor. A third of dealers reported cutting or diluting cocaine prior to sale using a range of agents including protein powder, glucose, gluconine, creatine and clenbutorol. Note that all price data was calculated based on the dealer

case studies in Appendix B. Multiple transaction data from each dealer were accepted where transactions varied by quantity or reported returns. The sales were then ranked by rate of return on the original outlay.

Table 42: Price and profit data per gram of cocaine.

City	Bought ($)	Sold ($)	Profit ($)	Return
1. Sydney	50	200	150	300%
2. Sydney	200	350 (7 caps)	150	75%
3. Sydney	400	700 (7 caps)	300	75%
4. Sydney	115	200	85	74%
5. Sydney	250	400	150	60%
6. Sydney	130	200	70	54%
7. Melbourne	230	300	70	30%
8. Sydney	160	200	40	25%
9. Melbourne	220	270	50	23%
10. Melbourne	325	400	75	23%
11. Sydney	250	300	50	20%
12. Sydney	170	200	30	18%
13. Melbourne	325	370	45	14%

While the average rate of return on gram sales was 60% (range 14% – 300%) the sample divided into two categories (Table 42). The top 6 transactions had returns in excess of 50%. These were all Sydney based dealers. Two transactions (1 and 4) were directly imported by a South American national. Transactions 2 and 3 illustrate the profitable break down of grams into caps for sale to IDU. Transactions 5 and 6 illustrate dealers with good connections to their suppliers or high end consumers. Transactions 7 through 13 reflect low-end retail mark ups on grams purchased for resale which averaged only 22%.

Table 43: Price and profit data per part ounce of cocaine.

City	Weight (oz)	Bought ($)	Sold ($)	Profit ($)	Return
1. Sydney	1/4	900	1,400	500	56%
2. Melbourne	1/4	1,650	2,550	900	55%
3. Melbourne	1/4	1,340	1,900	1,190	42%
4. Sydney	1/2	3,000	4,190	1,190	40%
5. Melbourne	1/4	1,800	2,500	700	39%
6. Melbourne	1/4	1,800	2,450 (7 grams)	650	36%
7. Sydney	1/8	650	875	225	35%
8. Melbourne	1/4	1,540	1,890	350	23%

Table 43 continued.

City	Weight (oz)	Bought ($)	Sold ($)	Profit ($)	Return
9. Sydney	1/2	N/A	3,300	N/A	20%
10. Sydney	1/8	N/A	900	N/A	20%
11. Sydney	1/4	1,200	1,400	200	17%
12. Sydney	1/8	N/A	700	N/A	N/A

The average return on eleven part ounce transactions was 35% within a narrow range (17% to 56%) (Table 43). Profitability at this level did not vary between Melbourne and Sydney. Better returns appeared to be achieved by longer established, regular dealers although these improvements were modest.

Table 44: Price and profit data per ounce of cocaine.

City	Bought ($)	Sold ($)	Profit ($)	Return
1. Sydney	7,000	16,000 (320 caps)	9,000	129%
2. Melbourne	4,500	7,350	2,850	63%
3. Melbourne	7,000	11,200	4,200	60%
4. Sydney	5,500	8,000	2,500	45%
5. Sydney	4,500	6,000	1,500	33%
6. Sydney	3,800	5,000	1,200	32%
7. Sydney	4,500	5,600	1,100	24%
8. Sydney	3,800	4,500	700	18%
9. Melbourne	6,500	7,000	500	8%
10. Melbourne	6,500	7,000	500	8%
11. Sydney	N/A	6,250	N/A	N/A

Average returns on full ounces were 42% (range 8% – 129%) (Table 44). The best return (129%) again demonstrated the profitability of converting ounces and grams into caps for injection. Transactions 9 and 10 appear to be similar although the sources were different. The return in both cases appeared to be a nominal fee for safe keeping prior to ounces being broken down further.

Table 45: Price and profit data per kilogram of cocaine.

Source	Target	Bought ($)	Sold ($)	Profit ($)	Return
1. South America	Sydney	US$500	140,000	139,000	>1,000%
2. Sydney	Gold Coast	150,000	175,000	25,000	17%

Only two transactions involving kilograms were disclosed (Table 45). The first reported was an importation of a single kilogram. Although only a single example, it shows the enormous rate of return at the import level. The second intrastate transaction shows that rate of return on funds invested (in this case the proceeds of embezzlement) was much lower.

Risk

Half of the dealers saw little or no risk at their current levels of cocaine dealing (Table 46). The main sources of risk were law enforcement (59%), cocaine users (29%) and other dealers (12%).

Table 46: Summary of perceptions of risk by dealers.

	Overall risk in cocaine dealing (*n*=17)	**Has the risk changed in the past year (*n*=17)**	**Is it more or less risky than other drugs (*n*=16)**
No risk at all	6%	Decreased	Less risky
		6%	25%
Slightly risky	47%	No change	Same risk
Quite risky	6%	53%	13%
Very risky	24%	Increased	More risky
Extremely risky	18%	18%	50%

Apart from the obvious consequences of arrest and incarceration, the dealers were specifically concerned by the use of drug sniffer dogs in Sydney, which had contributed to a shift from street-based dealing to home-based dealing facilitated by mobile telephones. Dealers were also generally concerned about undercover operations, phone-tapping and high penalties specific to cocaine dealing relative to other drugs. Concerns about other dealers focussed on the potential for violence from other dealers over turf disputes and the potential for robbery or rip-offs.

Cocaine users were identified as a source of risk because of the high level of repeat business and their aggravated behaviour which could attract police attention. Some dealers were concerned about users getting caught and leading police up fairly short supply chains.

The strategy of many dealers was to avoid 'lower end' users and the longer term dealers interviewed in this sample attributed their success to restricting the number and type of clients they serviced. Compared to other drugs, several dealers specifically found cocaine dealing to be more risky than ecstasy, amphetamine or cannabis.

Cocaine-related harms

A perhaps unexpected source of 'risk' for this group was their own cocaine use – a phenomenon previously noted in studies of middle class cocaine dealers in the US.

Dealers in this sample were significantly more likely to have sought treatment specifically for cocaine use in the past six months (χ^2=6.951, p=0.008) and to be classified as cocaine dependent (χ^2=14.389, p<0.001) (Table 47). Note this group of dealers were 'for-profit' and excluded respondents who dealt to maintain their own habits or for social reasons. In fact, this group of dealers had more contact with treatment services than law enforcement.

Table 47: Cocaine related harms comparison of dealers with non-dealers.

	Dealers (*n*=20)	**Non-dealers (*n*=278)**
Occupational/study (%)	25	12
Relationship/social (%)	**40***	13
Financial (%)	35	21
Legal/police (%)	5	4
Treatment sought (%)	**27* (n=15)**	7 (*n*=149)
Cocaine dependence diagnosis (%)	**80* (n=15)**	31 (*n*=149)

**p<0.05*

Dealers did not report a higher level of criminal involvement than the sample as a whole with the exception of drug dealing (Table 48). There were only three specific reports of other crime: shoplifting, assault and embezzlement.

Table 48: Criminal activity in the last month.

	Dealer (*n*=15)	**Non-dealer (*n*=149)**
Property crime (%)	7 (*n*=1)	5
Dealing (%)	87	30
Fraud (%)	7 (*n*=1)	2
Violent crime (%)	7 (*n*=1)	2
Mean crime score	**2.44***	0.77
Current charges (%)	7 (*n*=1)	8
Prison history (%)	21	17

**p<0.05*

Chapter seven: Conclusions

Consistent with previous studies of cocaine use in Australia, this study identified two main types of cocaine users. One was a socially and economically integrated group of employed, well-educated people who snorted cocaine on a casual basis usually in conjunction with a range of licit and illicit drugs. Very few affluent or high socio-economic status individuals commonly assumed to be associated with cocaine use participated in this study. The second, socially and economically marginalised group tended to be found in Sydney. This group was characterised by regular cocaine injection, often combined with heroin injection. This group experienced most of the physical, psychological and social problems associated with cocaine use.

The estimates of cocaine consumption by recent users in each city from the study, when multiplied by the population estimates for each state from the 2001 National Drug Household Survey (AIHW 2002a), produced a total annual cocaine consumption estimate of 2,916 kilograms. This level of demand would require the importation of 1,458 kilograms of high grade cocaine per annum. These estimates indicate that seizures in recent years of hundreds of kilograms of cocaine at the Australian border were not aberrations but were consistent with the quantities needed to satisfy current levels of demand. Sydney accounted for 87% of total estimated cocaine consumption. Marginalised users in Sydney were identified as the leading consumers of cocaine accounting for 46% of total consumption. This is a conservative estimate, given the study deliberately targeted affluent users on the incorrect assumption that they were responsible for most Australian cocaine use.

The median cost of a gram of cocaine, based on the most recent purchase price reported by users, was $267 with a range of $140 to $500. This price was the same in both Sydney and Melbourne. This price was higher than the $200 per gram reported by injecting drug users and other key informants in the annual Illicit Drug Reporting System (IDRS). The IDRS estimates may be less accurate as grams of cocaine are not the typical quantity bought or used by injecting drug users. On the other hand, the median price of caps (only reported in Sydney) at $50 (range $37.50 to $100) did agree with IDRS estimates. Most cocaine use was supported through paid employment or, more often than not, as a gift or 'shout'. Among marginalised users, government benefits, drug dealing (cocaine, heroin, cannabis) and sex work were also important sources of funds. Participants consistently reported that the price of cocaine had remained stable over the preceding six months, that it was of medium or high purity, that it was very easy, or easy, to purchase and that the availability had been stable over the preceding six months.

Most cocaine use took place in people's homes, private parties and some public entertainment venues, such as nightclubs in Melbourne. Reasons for cocaine use tended to concern mood enhancement, increased sociability and having fun. Most cocaine was bought in private with street purchases reported most commonly by marginalised users in Sydney. Very few recent purchases were reported in workplaces or pubs or bars. In Melbourne, the majority of recent purchases were arranged between friends, while in Sydney a majority of transactions were through established dealers, perhaps reflecting a more established market. Half of the dealers used by high SES and marginalised users provided only cocaine and no other drugs. Half of the dealers accessed by high SES and integrated users also supplied ecstasy. There appeared to be very little overlap, at least at the retail level, between cocaine supply and heroin or crystal methamphetamine supply. No commercial market for crack cocaine was detected, that is no participants reported either buying or selling crack cocaine. The 11% of respondents who used crack in the six months prior to interview had made the crack cocaine from purchased powder cocaine.

Cocaine users generally reported few problems directly connected to their cocaine use. Over one-third of the sample reported no problems stemming from their cocaine use. The problems most commonly reported by the sample as a whole concerned the expense of cocaine and related financial problems. Most problems were reported by the marginalised, injecting drug users interviewed in Sydney. These included financial, relationship and legal problems. Financial and legal problems were not surprising given that the estimated monthly personal expenditure on cocaine in this group was $2,800 – over ten times greater than that for integrated users. The majority reported that the source of this money was sex work and drug dealing but unreported criminal activity is an unavoidable conclusion. A greater frequency and quantity of cocaine use in the marginalised group, as well as the route of administration, possibly contributed to high rates of cocaine dependence and HIV risk-taking behaviour through shared injecting equipment.

Twenty 'for-profit' cocaine dealers provided detailed information about their drug dealing history and recent sales. All dealers had retail, upper retail and middle level market experience but none could be described as high level importers or wholesalers. Consistent with high levels of polydrug use reported there were few 'cocaine-only' dealers. Two types of dealers were identified, consistent with the two user groups. One type supplied IDU, but reported little overlap with heroin supply. The second supplied the socially integrated group, with a distinct overlap at the retail level with ecstasy/ketamine supply. Returns were best for those closest to the importation point, and also those involved in breaking down grams and ounces into caps for injection. Apart from these situations, cocaine dealing at the retail and upper retail levels was not highly profitable – amply illustrated by the fact that most dealers 'kept their day jobs' often in low level trades and hospitality jobs. An analysis of price and returns on sales indicated that even long-established upper retail and middle level dealers with reliable supply contacts and customers willing to pay for premium grade cocaine, made only modest returns considering the substantial penalties that small trafficable quantities of cocaine can attract.

An impression gained during research interviews was that many dealers, particularly younger party drug suppliers, did not appear to appreciate or understand the potential consequences of their activities. More mature dealers understood the consequences but managed the risk of apprehension through carefully restricting their customer base. The cocaine dealers interviewed in this study reported higher levels of cocaine use and cocaine-related problems compared to the non-dealing users, potentially facilitated by their easy access to quality cocaine. Several former large-scale dealers had substantially cut back their involvement due to health and other personal problems. This unanticipated risk of cocaine dealing was similar to that described by Waldorf and colleagues (1994) in their study of middle class cocaine dealers. In both their study and this study dealers started dealing for a mix of financial and social reasons and both were adversely affected by relatively high levels of physical, psychological and social problems specific to their own cocaine use.

The overall impression of the Australian cocaine market gained from the current study is that it is larger than previously suspected. On a per capita basis, marginalised injecting users in Sydney appear to consume more cocaine than other any group. It is a shallow market where very large importations are rapidly diffused through relatively short supply chains. Cocaine supply chains tend not to overlap with other imported drug supply, such as heroin or crystal methamphetamine. At the retail level both in Sydney and Melbourne there is a substantive overlap with the ecstasy market. The ability of law enforcement to make substantive impacts on the internal movement of landed cocaine is limited by the private nature of supply and use, and the speed with which cocaine reaches end users. Conversely, investment in supply control at, and beyond, the Australian border appears relatively more effective given the limited availability of cocaine and the very high retail prices identified in the present study.

The web-based survey, advertised in a range of financial, main-stream and community media, was a novel feature of the study. A large number of surveys were obtained through the Internet (*n*=133) and the data was internally consistent and complete. The Internet data was also consistent with the information collected through the personal interviews with users who were recruited through similar advertising and snowballing techniques. This also added to the statistical power of the findings, meaning that we could be more confident about our findings. Yet, ultimately, the Internet-based sample was not representative of most cocaine users. Young, male respondents living in Melbourne who were casual or recreational cocaine users were over-represented in the web-based survey sample. Thus, while the web-based survey confirmed findings from the personal interviews, it did not add any meaningful new information about cocaine use. It was hoped that this approach would access 'hidden' populations of cocaine users, particularly affluent users who were not well represented in drug market research. The success of this strategy, however, was limited.

Heavy cocaine use and related harms are concentrated in specific groups in the Australian community. The present study used purposive sampling and quantitative techniques and a number of interview modes to describe the broad structure of the Australian cocaine market. The study has provided some important insight into the current market. High SES individuals formed only a small part of the study. Cocaine use in this sample was casual and appeared to be self-limiting with few reported health or other problems. Given the access difficulties, further research into this group could not be considered a priority. Injecting drug users in Sydney consume most cocaine imported into Australia and experience most cocaine-related problems. This group is of on-going concern to both public health and law enforcement. Younger poly-drug users are the second largest group of cocaine consumers, although their use is casual and secondary to other recreational drug use centred around ecstasy, amphetamine and other synthetics. This more socially integrated group of recreational drug users also exhibited problems such as criminal activity (predominantly dealing) and mental health problems. Timely health and education interventions may avert the development of more complex and entrenched drug problems in this group in the future. Early intervention strategies and diversionary initiatives could be useful for those users who come into contact with the police. Future research could usefully focus on cocaine as part of poly-drug use and supply in this group. Other potentially valuable avenues of research in cocaine markets would include qualitative investigations of supply chains based on prison interviews similar to those undertaken by Dorn, Oette & White (1998) in the UK.

Performance indicator systems are important opportunities for law enforcement agencies to focus resources towards effective drug supply control and thereby reduce drug-market related harms (Dorn 2000; Dorn, Bucke & Goulden 2003). It appears that the current Australian cocaine market can only be supported by large-scale importations of hundreds of kilograms of cocaine via small craft and sea or air cargo. Detections of small quantities in the postal system or via air passengers or couriers are of relatively much less value. Indicators should also take into account aborted shipments bound for Australia and, bearing in mind the trans-national nature of cocaine supply, successes wherever Australian law enforcement has participated. The retail price of cocaine, both for grams and caps, is another significant performance indicator. The current high price of cocaine in Australia reflects the scarcity and difficulty of cocaine importation.

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Appendix A: Estimating the size of the cocaine market in Sydney and Melbourne

Data sources and assumptions

1. These estimates are intended to be indicative only and are subject to several important potential sources of bias. Even small changes or errors in underlying assumptions about the composition of cocaine demand and supply could significantly change the overall consumption and importation estimates.
2. The National Drug Household Survey (2001) (AIHW 2002b) estimated the number of people who recently used cocaine (last 12 months) in Sydney (96,000) and Melbourne (51,000).
3. Results from the present study based on the *Recent use episodes method* section described in methods - chapter 2 estimated that cocaine users in Sydney used 0.72 hits per day compared to 0.21 hits estimated among Melbourne based users.
4. Median values were used as the data was skewed due to the irregular patterns of cocaine use associated with casual or binge use.
5. One 'hit' (whether a line of cocaine, a snort, a point, or a cap) was approximated to 0.1 grams of retail grade cocaine.
6. Data was based on personal interviews conducted in Melbourne and Sydney (n=165).

Estimated annual cocaine consumption by city

Annual consumption of cocaine in Sydney = 0.72 x 0.1 x 96,000 x 365.25 = 2,524,608 grams = **2,525 kilograms**

Annual consumption in Melbourne = 0.21 x 0.1 x 51,000 x 365.25 = 391,183 grams = **391 kilograms**

Thus, between the two cities, the Sydney market accounted for 87% of cocaine consumption.

Estimated annual cocaine imports

Discounting these retail estimates for cutting by 50% yields a conservative estimate of **1,263 kilograms** of imported high grade cocaine to service annual demand in Sydney and **196 kilograms** for Melbourne. These estimates demonstrate that recent seizures in Micronesia of hundreds of kilograms of cocaine destined for Australia and on the coast of Western Australia were not aberrations but were consistent with quantities required to satisfy current levels of demand.

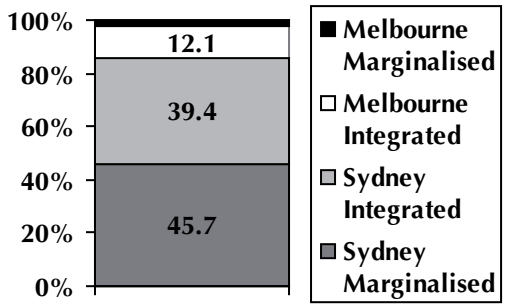
Cocaine use by city and socio-economic group

Table A: Cocaine use estimates by city and socio-economic status.

	Melbourne		*p*-value	Sydney		*p*-value
	Integrated	Marginalised		Integrated	Marginalised	
Median	0.21	0.29	*M*<0.861	0.345	2	*M*<0.001
Q Score	(0.04-2.86)	(0.04-0.71)	*U*=487.5	(0.04-10)	(0.14-13.5)	*U*=446.5

This analysis shows marginalised users in Sydney are the leading users of cocaine imported into Australia and this proportion is likely to be underestimated due to the study sampling strategy which targeted non-injecting users. The estimated breakdown of the cocaine use by category of user in Sydney and Melbourne is illustrated in Figure A.

Figure A: Estimated cocaine use amongst respondents by user type (by city)



Estimated personal expenditure on cocaine

The average retail price per gram was calculated in each city based on the most recent purchase price. In Melbourne, the average price paid per gram was $274.05 (±$60.64) with a median price of $267.50 (range $150-$500). The estimated price paid per hit (0.1 gram) based on the median was $26.75. The daily expenditure in the integrated group in the Melbourne sample was calculated by multiplying the median Q score (Table A) by the median price paid per hit or;

0.21 daily hits x $26.75 = $5.62 per day or **$157.29 per month**.

In Sydney, the price per gram was almost identical to that for Melbourne. The average price per gram was $269.30 (±$70.70) median price was $266.70 (range 140-500). The estimated price per (0.1 gram) based on the median was $26.67. The daily expenditure in the integrated group in Sydney calculated as above was;

0.345 daily hits x $26.67 = $9.20 per day or **$257.63 per month**.

The average retail price per cap of cocaine (estimated at 0.1 grams) was only calculated for the Sydney market as caps were not reported in Melbourne. The average purchase price per cap was $66.94 (±$22.79) median price was $50 (range 37.50-100). On this basis, the daily expenditure in the marginalised group in Sydney was;

2.0 daily hits x $50 = $100 per day or **$2,800 per month**.

This large difference is due to mark up on caps compared to grams (about 100%) but also 'obviously' the much greater frequency of use in the marginalised group (twice a day compared to once every three days in the integrated group).

Appendix B: Dealer Case Studies

Case study one

Male, Suburban Sydney

Male, with a history of regular cocaine dealing and using. Reported using and dealing much less than in the past. Reported some personal and health problems from his own cocaine use, although continues with quite regular use (30 days in past 6 months). Other drug use including regular cannabis smoking and occasional ecstasy (10 days). Educated to year 10. Self-employed building contractor. Cocaine dealing is now restricted to helping out friends. He purchases quarter ounces for $900 which he sells for $1,400 ($200 per gram), a total profit of $70 per gram or $490 per quarter ounce. He purchases his cocaine from a long-term friend who does not supply him any other drugs. This was done on a monthly basis. He does not cut the cocaine in any way and has not been involved in any importation of cocaine. First started dealing cannabis at age 17. Started cocaine dealing for social reasons. His clientele is strictly limited to a circle of friends to limit risk. Subject reported no other crimes committed in the past month, no current criminal charges or history of imprisonment.

Case study two

Male, Sydney Inner City

Male, self-employed in personal services. Educated to year 10. Reports non-problematic personal use of cocaine (30 days in the past 6 months) and less frequent use of other recreational stimulants (methamphetamine 18 days, ecstasy 3 days). He purchases cocaine on a monthly basis for $1,500 for 6 grams which he cuts using non-scented protein powder at a ratio of 5:1. He visits his supplier once a month. He also purchases crystal methamphetamine from this supplier. He sells 5 grams at $400 per gram (profit of $150 per gram or $500 on the deal) and uses the excess powder himself. Subject started dealing ecstasy at age 32 and started to supply cocaine at age 33 due to client demand. Subject mainly supplies recreational drugs, including methamphetamine powder, base and crystal, ecstasy and ketamine with a total weekly clientele of 10 to 15. He describes cocaine as a side-line. Subject considers cocaine dealing to be more risky than the other recreational drugs he provides, because the suppliers are more aggressive and unstable. He has not been involved in cocaine importation. Subject reported no other crimes committed in the past month, no current criminal charges or history of imprisonment.

Case study three

Male, Suburban Sydney

Male, working full time in business services earning over $78,000 per annum. Regular cocaine snorter reports using 100 days (including 10 days where crack cocaine was smoked) in the past 6 months and over half of his social circle use cocaine. Subject began dealing cannabis at age 12 and started dealing cocaine at age 14. He was introduced to drug dealing through family members. He has dealt a wide range of drugs from cannabis, recreational drugs, heroin, steroids and cocaine. He is presently involved in monthly purchases arranged through a syndicate of five friends. Their cocaine supplier also arranges for personal and group purchases of crystal methamphetamine, ecstasy, cannabis and GHB. Recent purchases included five ounces for

$22,500 (sold for $30,000) and half an ounce sold for $3,300. The smallest quantity of cocaine sold in the past six months was 3.5 grams for $900. The syndicate aims to make a 20% mark up on sales and does not cut the deals. The syndicate supplies an average of only one customer per month. The social syndicate has also financed importation of cocaine via sea cargo. Subject reported one instance of violent crime (assault) in the past month. He has no current criminal charges or history of imprisonment.

Case study four

Male, Suburban Sydney

Male, working full time in business services earning between $52,000 and $78,000 per annum. Meets high socio-economic status criteria (graduate, professional, income >$52,000). Reports regular social use (20 days past six months) plus occasional ecstasy (6 days in past six months) and some cannabis use (40 days). No other illicit drug use reported. Describes use as traditional. Makes a small profit of $40 on each gram and mainly sells for easy money and to make money while partying. Sells on a weekly basis to about 5 different clients including other dealers and recreational drug users. Started selling cocaine at age 20 and has only ever dealt cocaine. Makes small-scale purchases from South America. Most recent purchase was $4,500 for one ounce which he sells for $200 per gram representing an overall profit of $1,100 excluding personal use. Other opportunistic sales described (6 grams bought for $300 sold for $1,200). However, describes increasing difficulty of importing via post due to increased security checking. He considers that cocaine dealing has become more risky and is concerned that police may follow up supply chains if users get busted. He has been involved in importation of cocaine from South America where it is purchased for US$10 per gram. The cocaine was imported via the post. Subject reported no other crimes committed in the past month, no current criminal charges or history of imprisonment.

Case study five

Male, Sydney Inner City

Male, retired and living on proceeds from cocaine dealing. Educated to year 10. Reports continued regular personal use of cocaine (40 days in past six months) with no other illicit drug use. Continues to deal cocaine on a smaller scale for social reasons and to facilitate personal use. Presently buys ¼ ounce for $1,200 every month from a regular supplier he was introduced to through ecstasy supply. He has purchased up to ½ an ounce for $2,500 in the past six months. He adopts a cynical attitude to fluctuations in the price of cocaine which he believes is manipulated by dealers using events such as publicity for large seizures. He sells cocaine at $200 per gram which represents a small profit of $200 per deal. He describes lifting each bag by 1% using glucose powder. The first drug he sold was ecstasy at age 25 with regular cocaine dealing commencing at age 27. While dealing cocaine he also dealt methamphetamine powder, ecstasy, cannabis, ketamine, prescription drugs (Viagra, benzodiazepines). He currently supplies about 5 people a month being professionals and recreational drug users. The largest quantity sold in the past six months was $700 for 3.5 grams. He has imported cocaine from the US via the post which was mailed to himself or to unsuspecting acquaintances. Subject reported no other crimes committed in the past month, no current criminal charges or history of imprisonment.

Case study six

Male, Sydney Inner City

Male, former sex worker. Subject presents in a poor physical and psychological condition. Poorly educated (Year 7-9). Reports current injecting poly-drug use (cocaine three times per week, amphetamine twice a week, heroin twice a week). Drug of choice is daily oral benzodiazepines. Reports his entire social circle uses cocaine (around 30 people). Subject started drug dealing at age 16 (methamphetamine), started cocaine dealing at 28. He was introduced to cocaine dealing via a fellow sex worker. Deals cocaine on a weekly basis as the opportunity allows. Also exchanges benzodiazepines for grams of cocaine which he bags into caps for resale. He purchases grams of cocaine from his heroin supplier for cash ($200 per gram or better quality deals of $300 plus 100 benzodiazepine tablets). He converts the $200 grams into 7 caps and resells at $50 per cap for a profit of $150 per gram. The better quality deals worth $400 he converts into 7 caps resold for $100 or a cash profit of $400 (given the pills are almost free from doctor shopping). Subject cuts the deals with glucose on a 4:1 basis and consumes any extra. Subject reports that cocaine dealing is risky due to the behaviour of users which attracts police attention more so than any other drug. He has been involved in the importation of cocaine as the receiver in a group of individuals comprising family members, partner and business associates. Subject reported regular shoplifting, he was currently facing criminal charges and had a prison history.

Case study seven

Male, Suburban Sydney

Male, currently employed full time in sales. University educated with an income between $26,000 and $52,000 per annum. A former large scale dealer and daily user. Now uses cocaine on a weekly basis by injection. Most commonly uses on brothel premises where he can binge-use up to ¼ ounce (7 grams) with sex workers. No other drug use except daily cannabis. He was introduced to cocaine dealing at age 20 through a family member and also supplied cannabis while dealing cocaine. He described the recent brokering of one kilogram of cocaine which he had purchased for $150,000 and resold to Queensland based interests for $175,000 uncut. The transaction was financed by embezzlement of employer funds. He has not been involved in cocaine importation. No other criminal activity, no current charges or prison history.

Case study eight

Male, Suburban Sydney

Male, working part time/casual in the building industry, married with children. He presented in poor health and complained that his health was limiting his ability to do heavy lifting work. Regular use of cocaine by injection (three times a week) and regular smoking of home made crack cocaine. Preference is for crack cocaine. Subject carefully described the process of manufacturing crack using bicarbonate of soda (0.2 grams to 1 gram of cocaine), careful temperature control and use of appropriate metal containers. Subject learnt to prepare crack cocaine while testing the purity of cocaine deals (i.e. one gram of 80% pure cocaine powder will make 0.8 grams of crack cocaine). Subject acts as a middle man on a monthly basis couriering five ounces of powder cocaine. The first ounce (90% pure) is delivered uncut as a tester and sold for $4,500 (yielding a $700 profit). The final four ounces are cut with one ounce of gluconine (reducing purity to 72%) and sold for $20,000 (yielding a profit of $4,800). The subject had not committed any other crimes recently, was not facing any charges but had been to prison.

The subject was introduced through a flatmate to cocaine dealing in nightclubs. He described a process of escalation as small deals such as eight balls and quarter ounces financed larger transactions as they became known as reliable to other suppliers. The subject now strictly acts as a middle-man and considers other users as unsafe. He considered cocaine dealing to be less risky than street drug dealing and identified phone taps as the greatest risk from law enforcement. He met his present supplier in prison. He stated that this individual, who also supplies heroin, had taken care of him in prison. He felt a strong bond of loyalty to him.

The subject described a successful cocaine importation. His role was to give instructions to the packer in South America regarding weight and packaging materials. The cocaine was purchased for US$500 for one kilo and then sold in Australia for $140,000. The seven person syndicate included 2-3 individuals who provided the cash, while the others provided services such as physical handling of the package. Each syndicate member received $20,000 (i.e. an equal share of the shipment value).

Case study nine

Female, Suburban Sydney

Female, sex worker uses cocaine and heroin by injection on a daily basis. Subject regularly deals heroin, cocaine, cannabis and steroids to maintain her drug habit and for profit. She sells cocaine to about 10 different users in a week. She began dealing cocaine at age 20. She purchases cocaine in ounces and cuts with poorer quality cocaine from other shipments on a 7:1 basis. She breaks down the ounces to caps which represented 0.1 grams i.e. 10 caps in a gram, 280 caps from an ounce. She most recently bought an ounce for $7,000 which produced approximately 320 caps (when cut) which sold for $50 each yielding a profit of $9,000 including personal consumption. Her largest transaction in the last six months was the sale of four ounces for $25,000 (profit not stated). Her supplier did her a personal favour in the past and she felt a strong bond of loyalty to him.

She considered other dealers to be the greatest risk because of territorial limitations and the threatened use of firearms. She considered cocaine dealing to be more risky than heroin dealing due to the higher repeat business rate and more aggravated users. She has participated in the importation of cocaine as the middle-person/pick-up of small quantities delivered through the mail. The deliveries were organised through a group of strangers, acquaintances and business associates. Apart from dealing, subject reports no other criminal activity or current charges. Subject has spent time in prison but does not face any current charges.

Case study ten

Male, Suburban Sydney

Male, presents as healthy and fit. Self-employed sales contractor earning in excess of $78,000 per annum. Non-University graduate. Regular recreational use of cocaine by snorting about twice a week and has smoked crack cocaine on two occasions in the past 6 months. Occasional use of other drugs (speed, ecstasy, ketamine, anabolic steroids). As with some other middle level dealers he describes cooking crack to test the purity of deals being offered for resale. Reported last purity at 92%. He purchases a half-ounce of cocaine on a weekly basis for $3,000 from a regular supplier who does not supply him any other drugs. The largest quantity of cocaine he has bought in the past 6 months was one ounce ($5,500). He aims to make a profit of $100 on one gram and between $1,000 and 1,500 per ounce. He cuts grams of coke 2:1 and ounces 7:1. Based on his

most recent purchases ($214 per gram), sales ($200 gram) and cutting ratio (2:1) the actual profit per gram was $85. His profit on ounces is calculated on the largest quantities purchased and sold in the last six months ($5,500 and $7,000 respectively) and a cutting ratio (7:1) yielding a profit per ounce of $2,500. He first began dealing ketamine and ecstasy at age 16 and was introduced to cocaine dealer through a close friend at age 26. His reasons for starting were a mixture of money, his own use and also social reasons. He supplies a small social group of about 5 including professionals, party drug users and other dealers. Subject has not been involved in any cocaine importation. He reports no other criminal activity apart from current cocaine and ketamine supply.

Case study eleven

Male, Sydney Inner City

Male, employed full time in business services. Non-University graduate, average income within range $26,000-52,000 per annum and recreational drug dealer (cocaine, ecstasy, GHB, ketamine). Occasional personal use of cocaine but preference is for ketamine (104 days past 6 months) then ecstasy (weekly) and GHB (weekly). Started dealing ecstasy at age 34 and cocaine at age 35. Started dealing for friends and has evolved into a small time dealer. Cocaine is a sideline which he buys at $250 per gram and resells uncut at $300 gram.

Case study twelve

Male, Suburban Melbourne

Male, employed full time as a mechanic. Reports former large cocaine habit and involvement in dealing. Presently receiving counselling support and in recovery 'however' reports continued monthly use of cocaine and also weekly methamphetamine and ecstasy use. He began dealing cannabis at age 16 and was introduced by a family member to cocaine dealing at age 23. Deals cocaine, ecstasy and cannabis to a tight circle of wealthy people (approximately 6 per week). Aims to make a profit of $350 on a quarter ounce that he buys on a monthly basis for $1,540 and sells uncut in grams for $1,890 (i.e. $270 per gram). He purchases the cocaine from a regular long-term supplier that he was introduced to through work. He does not buy any other drugs from this source. He reports the purity of his purchases at 50-60% based on occasional cooking of grams down to crack. He considers cocaine dealing to be more risky than ecstasy or cannabis because of the penalties and particularly believes the risk versus return is better for cannabis. He has not been involved in cocaine importation and reports no other criminal activity or criminal charges.

Case study thirteen

Male, Suburban Melbourne

Male, self employed working in the entertainment industry. Regular cocaine snorter at weekends. Also uses ecstasy more frequently (50 days in the past 6 months) and ketamine (24 days). Started dealing recreational drugs starting with ecstasy at age 19. Introduced to cocaine through his ecstasy supplier and at the request of his clients who may have moved to other dealers if he did not supply cocaine. Other drugs dealt were methamphetamine (powder, base), ecstasy, MDMA powder, ketamine and LSD. No other crime reported except dealing. He has been involved in the importation of cocaine by the postal system. His role was distribution. Increased postal surveillance now makes such importations too risky. Considers his personal risk was low because relatively small quantities were carried compared to ecstasy. Subject reports that recent profit from

dealing uncut grams was $45-75 (regularly bought at $325 and then sold at $370-400 depending on number of grams). Note that his supplier also supplied him ecstasy and MDMA powder. Previously had purchased in ounces and made more money per gram (estimated $150 profit per gram).

Case study fourteen

Female, Suburban Melbourne

Female, employed full time in sales, single parent with child, year 10 education, income between $26,000 and $52,000. Former sex worker. Reported severe health problems from cocaine use including nose bleeds, possible overdose requiring hospitalisation and coronary implications. Continues regular cocaine use (90 days in past 180). She also regularly uses and deals methamphetamine powder, crystal methamphetamine, ecstasy and GHB. Reported a three year history of crack addiction while living overseas. Subject described a single transaction involving ¼ ounce bought for $1,800 and sold uncut for $2,450 in $350 gram deals.

Case study fifteen

Male, Suburban Melbourne

Male, employed full time in wholesaling, income between $26,000 and $52,000. Currently receiving treatment for severe depression and drug-related problems. Regular cocaine user (90 days in the past 180). No other recent illicit drug use. Reported selling cocaine on a monthly basis but does not consider himself to be dealing, rather helping associates store or transfer cocaine. Most recent transaction of two grams for $600 yielding a $140 profit. Before that a single transaction of four ounces bought for $26,000 and sold for $28,000.

Case study sixteen

Male, Suburban Sydney (Internet interview)

Male, self employed, educated to year 12, earning over $52,000 per annum in the financial services industry. Deals cocaine on a monthly basis as well as ecstasy. He purchases cocaine in eight-balls (3.5 grams) for $650 and sells grams for $250 making a profit of $50 per gram. He purchases the cocaine from his ecstasy supplier. First drug sold was ecstasy. Describes his reasons for dealing as for profit and personal use. Reports regular weekly use of cocaine by snorting. Considers cocaine dealing more risky than pot or ecstasy, although the overall risk was slight.

Case study seventeen

Male, Melbourne Inner City (Internet interview)

Male, self employed in sales earning between $26,000 and $52,000 per annum. Regular binge user (30 days past 180 days) with thirty lines per session, although has only started cocaine use in the past year. Also uses other recreational drugs including speed, ice, ecstasy and ketamine. Has sold cocaine on a monthly basis for profit and to support own use. On-sells ¼ ounces (7 grams) for $1,900 to obtain a profit of $560 or $80 per gram. His supplier only deals cocaine.

Case study eighteen

Male, Suburban Melbourne (Internet interview)

Male, married, self employed tradesperson and low income. Reports regular weekly use of cocaine. Sells cocaine on a weekly basis to support personal use and to make money. Also reports sale of other drugs including all forms of amphetamine (powder, base, crystal), ecstasy and cannabis. First drug sold was cannabis. Purchases ounces for $4,500 for sale as grams for $7,350 (return 63%). Purchases quarter ounces for $1,800 for sale as grams for $2,500 (return 39%). Considers cocaine dealing very risky, main source of risk being law enforcement. Cocaine dealing was more risky than the other drugs he dealt (meth, ecstasy, green).

Case study nineteen

Male, Suburban Melbourne (Internet interview)

Male, married, self employed tradesperson with income greater than $52,000 per annum. Describes occasional personal use of cocaine (8 days in last 6 months) and ecstasy (25 days). Smokes cannabis every day. Started cocaine use at age 21 years. Deals cocaine on a weekly basis and aims to make $100 per gram. Started dealing cannabis and now sells cocaine, cannabis and ecstasy. He purchases his cocaine in ¼ ounces for $1,650 and sells for $2,550 (return of $900 or 55%). He considers cocaine dealing to be only slightly risky.

Case study twenty

Male, Suburban Melbourne (Internet interview)

Male, working part time in the hospitality industry, low income of between $10,000 and $26,000 per annum. Reports weekly use of cocaine, ecstasy and daily use of cannabis and base methamphetamine. Started cocaine use at age 21. Deals drugs more than weekly, including cocaine, methamphetamine (powder and base) and ecstasy. Started dealing ecstasy after being introduced to it by a close friend. Most of his social network uses cocaine. Deals in ounces which he buys at $6,500 and sells for $7,000 to professionals and party drug users. He sees no risk in cocaine dealing.