

NDARC Technical Report No. 108

Victorian Drug Trends 2000

**Findings from the Melbourne arm of the Illicit Drug
Reporting System (IDRS)**

Craig Fry and Peter Miller

Turning Point Alcohol and Drug Centre Inc.

ISBN 0 7334 1749 3

© NDARC 2000

Victorian Drug Trends 2000: Findings from the Melbourne arm of the Illicit Drug Reporting System (IDRS) Study.

Copyright ©2001 National Drug and Alcohol Research Centre

Published by: National Drug and Alcohol Research Centre, University of NSW

January 2001

ISBN: 0 7334 1749 3

Fry, C., & Miller, P. (2001). *Victorian Drug Trends 2000: Findings from the Melbourne arm of the Illicit Drug Reporting System (IDRS) Study*. National Drug and Alcohol Research Centre Technical Report No. 108. Sydney: University of NSW.

CONTENTS

CONTENTS	I
LIST OF TABLES	III
LIST OF FIGURES	IV
ACKNOWLEDGMENTS	V
EXECUTIVE SUMMARY	VI
1.0 INTRODUCTION	1
2.0 METHOD	3
2.1 INJECTING DRUG USER (IDU) SURVEY	3
2.2 KEY INFORMANT SURVEY.....	4
2.3 INDICATOR DATA	6
<i>Drug seizure purity levels</i>	7
<i>Surveys reporting on illicit drug use prevalence in Victoria</i>	7
<i>Needle and Syringe Program distribution and return rates</i>	7
<i>Specialist drug treatment presentations</i>	8
<i>Melbourne Metropolitan Ambulance Service (MAS) attendances at non-fatal drug overdoses</i>	8
<i>Heroin-related fatalities</i>	9
<i>Blood borne virus surveillance data</i>	9
<i>Drug-related arrest data</i>	9
3.0 CURRENT DRUG SCENE AND RECENT TRENDS	11
3.1 OVERVIEW OF IDU SAMPLE	11
3.2 DRUG USE HISTORY OF THE IDU SAMPLE	13
3.2.1 <i>Duration of injecting career</i>	13
3.2.2 <i>Drug use history (last 4 weeks)</i>	14
3.2.3 <i>Drug use history (last 6 months & lifetime)</i>	15
3.3 HEROIN USE IN MELBOURNE	18
3.3.1 <i>Price</i>	18
3.3.2 <i>Availability</i>	20
3.3.3 <i>Form and purity</i>	21
3.3.4 <i>Patterns of heroin use</i>	23
3.3.5 <i>Summary of heroin trends</i>	28
3.4 AMPHETAMINE USE IN MELBOURNE	30
3.4.1 <i>Price</i>	30
3.4.2 <i>Availability</i>	31
3.4.3 <i>Form and purity</i>	31
3.4.4 <i>Patterns of amphetamine use</i>	34
3.4.5 <i>Summary of amphetamine trends</i>	35
3.5 COCAINE USE IN MELBOURNE	37
3.5.1 <i>Price</i>	37
3.5.2 <i>Availability</i>	38
3.5.3 <i>Form and purity</i>	38
3.5.4 <i>Patterns of cocaine use</i>	40

3.5.5	<i>Summary of cocaine trends</i>	41
3.6	CANNABIS USE IN MELBOURNE	42
3.6.1	<i>Price</i>	42
3.6.2	<i>Availability</i>	42
3.6.3	<i>Form and potency</i>	43
3.6.4	<i>Patterns of cannabis use</i>	44
3.6.5	<i>Summary of cannabis trends</i>	45
3.7	OTHER DRUG USE IN MELBOURNE	47
3.7.1	<i>Other opiates</i>	47
3.7.2	<i>Benzodiazepines</i>	47
3.7.3	<i>Anti-depressants</i>	49
3.7.4	<i>Ecstasy</i>	49
3.7.5	<i>Other drugs</i>	50
3.7.6	<i>Summary of other drug trends</i>	52
4.0	DRUG-RELATED ISSUES	53
4.1	IDU SURVEY	53
4.1.1	<i>Injection related health problems</i>	53
4.1.2	<i>Heroin-related overdose</i>	53
4.1.3	<i>Injection equipment sharing</i>	55
4.1.4	<i>Criminal activity</i>	56
4.1.5	<i>Perception of police activity</i>	56
4.2	KEY INFORMANT SURVEY.....	58
4.2.1	<i>Heroin-related issues</i>	58
4.2.2	<i>Amphetamine-related issues</i>	60
4.2.3	<i>Cannabis-related issues</i>	60
4.3	OTHER INDICATORS.....	62
4.3.1	<i>Specialist drug treatment presentations</i>	62
4.3.2	<i>Ambulance attendances (non-fatal heroin-related overdose)</i>	64
4.3.3	<i>Drug deaths</i>	66
4.3.4	<i>Blood borne virus transmission</i>	67
4.3.5	<i>Arrest data</i>	69
4.4	SUMMARY OF DRUG-RELATED ISSUES.....	70
5.0	SUMMARY OF FINDINGS	72
5.1	COMPARISON OF DATA FROM DIFFERENT SOURCES	72
5.2	STUDY LIMITATIONS.....	77
5.3	IMPLICATIONS OF THE FINDINGS FOR FUTURE RESEARCH.....	78
6.0	REFERENCES	80
7.0	APPENDIX A	85
	CHRONOLOGY OF KEY DRUG-RELATED EVENTS IN VICTORIA, 9/99 TO 6/00	85

LIST OF TABLES

Table A. Price, availability, purity and prevalence of use for heroin, amphetamine, cocaine and cannabis in Victoria. _____	viii
Table 1. Demographic characteristics of the 2000 IDU survey sample (N= 152). _____	12
Table 2. Frequency of injection during the last month (IDU survey, N=152). _____	14
Table 3. Amount spent on illicit drugs on day prior to interview (IDU survey, N=152). _____	14
Table 4. Location in which respondents had last injected (IDU survey, N=152). _____	15
Table 5. Drug use history of IDU sample (N=152). _____	17
Table 6a. Modal prices of heroin in Melbourne reported by IDU survey respondents 1997-2000. ___	19
Table 6b. IDU reported prices for heroin quantities purchased during previous 6 months. _____	20
Table 7. Average purity level of heroin seizures in Victoria for 95/96 to 99/00. _____	23
Table 8. Victorian Needle Syringe Program distribution and return rates 1995-1999. _____	24
Table 9. Summary of heroin price, availability, purity and use trends in Melbourne 2000. _____	28
Table 10. Modal prices of amphetamines in Melbourne reported by IDU survey sample 1997-2000. _____	30
Table 11. Mean purity level of methamphetamine seizures in Victoria 95/96 to 99/00. _____	33
Table 12. Summary of amphetamine price, availability, purity and use trends in Melbourne 2000. _	35
Table 13. Modal prices of cocaine in Melbourne reported by IDU survey respondents 1997-2000. _	37
Table 14. Mean purity level of cocaine seizures in Victoria for 95/96 to 99/00. _____	39
Table 15. Summary of cocaine price, availability, purity and use trends in Melbourne 2000. _____	41
Table 16. Modal prices of cannabis in Melbourne reported by IDU survey respondents 1997-2000. _____	42
Table 17. Summary of cannabis price, availability, purity and use trends in Melbourne 2000. _____	45
Table 18. Injection-related health problems reported by participants in the IDU survey (N=152). ___	53
Table 19. Reported experience of heroin overdose for IDU survey respondents 1997 to 2000. _____	54
Table 20. Drugs used on day prior to interview (IDU survey, N=152). _____	54
Table 21. Reported IDU sample used needle/syringe borrowing/lending 1997-2000. _____	55
Table 22. Criminal activity reported by IDU in the last month (N=152). _____	56
Table 23. Monthly totals of non-fatal heroin overdoses in Melbourne, July 1999 to June 2000. _____	64
Table 24. Characteristics of non-fatal heroin overdoses in Melbourne, July 1999 to June 2000. _____	65
Table 25. Non-fatal heroin overdoses in local government areas in metropolitan Melbourne, July 1999 to June 2000. _____	65
Table 26. Numbers of heroin-related deaths in the Victoria, 1991-2000. _____	66
Table 27. Annual number of notifications of HIV diagnoses in Victoria where injecting drug use has been identified as the likely exposure factor, 1990 to 1999. _____	68
Table 28. Prevalence of HCV and HIV infection among NSP clients in Victoria 1996-1999. _____	68
Table 29. Victorian hepatitis C notifications by year and gender, 1992-1998 _____	69
Table 30. Number of arrests for cannabis, heroin, amphetamine and cocaine related offences in Victoria, 1995/96-1999/00. _____	69
Table 31. Consumer arrests as a proportion of all drug-related arrests in Victoria, 1995/96-1998/99. _____	70
Table 32. Heroin trends identified in IDU reports, key informant reports, and other indicator sources. _____	72
Table 33. Amphetamine trends identified in IDU reports, key informant reports, and other indicator sources. _____	73
Table 34. Cocaine trends identified in IDU reports, key informant reports, and other indicator sources. _____	74
Table 35. Cannabis trends identified in IDU reports, key informant reports, and other indicator sources. _____	75
Table 36. Other drug trends identified in IDU reports, key informant reports, and other indicator sources. _____	75
Table 37. Drug related health and law enforcement trends identified in IDU reports, key informant reports, and other indicator sources. _____	76

LIST OF FIGURES

Figure 1. Residential postcodes of the 2000 IDU survey sample. _____	11
Figure 2. Purity of heroin seizures by Victorian law enforcement in each quarter of 99/00 (Australian Bureau of Criminal Intelligence). _____	22
Figure 3. Purity of amphetamine and methamphetamine seizures by Victorian law enforcement in each quarter of 99/00 (Australian Bureau of Criminal Intelligence). _____	33
Figure 4. Purity of cocaine seizures by Victorian and AFP law enforcement in each quarter of 99/00 (Australian Bureau of Criminal Intelligence). _____	39
Figure 5. Census estimate of the number of Victorian methadone clients, June 1995 to April 2000 (Source: Victorian Department of Human Services). _____	63

ACKNOWLEDGMENTS

The 2000 Melbourne arm of the Illicit Drug Reporting System (IDRS) study was funded by the Commonwealth Department of Health and Aged Care. The annual IDRS study is coordinated by the National Drug and Alcohol Research Centre (NDARC) in Sydney, NSW.

We are very grateful to the injecting drug users and key informants who participated in this study by providing information about their experience and knowledge of illicit drug use in Melbourne. We would also like to acknowledge the IDRS 2000 Research Assistants, who were responsible for recruiting and interviewing participants for the IDU survey: James Dixon, Emily Gillespie, Gary Reid, Jennifer Richards, Jane Sullivan, and David Prater.

Special thanks go to the following organisations for contributing space and / or staff time in assisting the study team with the IDU survey component of the study:

Recruitment & interview sites

- Springvale AIDS and Hepatitis Prevention Team, Springvale Community Health Centre
- AIDS Prevention and Health Awareness Program (APHAP), Youth Projects Inc., Glenroy
- St Kilda Crisis Centre
- Peninsula Youth & Family Services, Frankston
- Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS), Frankston
- Western Region AIDS & Hepatitis Prevention (WRAP), Footscray
- Turning Point Alcohol & Drug Centre Inc., Fitzroy

Recruitment only sites

- Melbourne Inner City AIDS Prevention Centre (MINE), Collingwood
- Prostitutes Collective of Victoria (PCV), St Kilda
- Dandenong Hospital AIDS Prevention & Support Unit
- Victorian Drug User Group (VIVAIDS), Carlton North
- AIDS Prevention Team, Inner South Community Health Service, St Kilda

Thanks also go to Anne-Marie Laslett, Stefan Cvetkovski and Eric Tyssen for assisting in the collation of indicator data, and to Libby Topp at NDARC for her assistance as National Coordinator of the IDRS study.

EXECUTIVE SUMMARY

Background

In 1998 the Commonwealth Department of Health and Aged Care commissioned the National Drug and Alcohol Research Centre (NDARC) to conduct the national Illicit Drug Reporting System (IDRS), following a successful pilot study in Sydney during 1996 and a multi-state trial in 1997 running the core methods of IDU survey, key informant interviews and indicator data analysis. The 1998 IDRS study was conducted in New South Wales (Sydney), Victoria (Melbourne) and South Australia (Adelaide). In addition, the feasibility of other states and territories conducting IDRS key informant interviews and analyses of secondary indicator data was examined. In 1999, the complete IDRS was again conducted in New South Wales, Victoria and South Australia, with the remaining states and territories collecting secondary indicator data and conducting key informant interviews.

In 2000, all states and territories conducted the complete IDRS study (ie. IDU survey, key informant survey, secondary indicator data). The Victorian, NSW and SA studies (as well as the key informant and indicator components of other jurisdictions) were funded by the Commonwealth Department of Health and Aged Care (CDHAC). Whereas the WA, Tasmanian, QLD, ACT and NT IDU survey components were funded by the National Drug Law Enforcement Research Fund (NDLERF). In addition, NDLERF and the Drug and Alcohol Services Council (DASC) provided funding for the trial of an IDRS designer drugs module in NSW, QLD and SA.

The aim of the IDRS is to provide a rapid and reliable method of monitoring trends related to the use of opiates, cannabis, cocaine and amphetamines. The IDRS study provides nationally comparable data with respect to emerging trends in illicit drug use and related harms, and provides a basis for better informing future policy and research initiatives.

Recent application of Victorian IDRS findings

In conducting the Melbourne arm of the annual IDRS study since 1997, Turning Point has witnessed the increasing application of study findings from successive years by health and

law enforcement sectors in Victoria. Some notable examples where IDRS findings have informed sector responses include:

- Victorian Department of Human Services funding for the development of a cocaine preparedness and training package for alcohol and drug workers (Clark & Roeg, 2000).
- Policy development activities of the Victorian Government *Drug Policy Expert Committee* (chaired by Professor Penington), particularly the development of the *Stage Two Report – Drugs: Meeting the Challenge* (Drug Policy Expert Committee, 2000).
- Routine provision of information to the Public Health and Drug Treatment divisions of the Victorian Department of Human Service, and a core data source for the *Victorian Drug Statistics Handbook* (Victorian Department of Human Services, 2000a).
- Policy development activities of various Local Government areas (eg. recent local drug strategy development processes).
- Routine provision of information to Victorian Needle and Syringe Programs in the form of an annual IDRS *Victorian Drug Trends Report* and *IDRS Community Report* (Dwyer & Rumbold, 2000a; Dwyer & Rumbold, 2000b).
- Routine provision of study findings to Victoria Police Drug and Alcohol Policy Coordination unit, and a source of data for the *Regional Response Unit Illicit Drug Survey* (Horwood, 2000).
- Provision of some of the first information concerning the operational characteristics of multiple street-based heroin markets within Melbourne (and subsequent development of research studies currently funded by NH&MRC and VicHealth to further investigate these markets).
- Use of IDRS findings to inform heroin-related overdose research in Victoria, in particular the Turning Point Alcohol & Drug Centre heroin overdose research program (Dietze, Fry, Rumbold & Gerostamoulos in press).

The main strength of the Victorian IDRS study is that the core methodology (IDU survey + key informant interviews + secondary indicators) has been replicated yearly since 1997, enabling the collection a sizeable body of comparable information for that period. This has provided us with a unique opportunity to monitor Melbourne illicit drug trends over time, the

reporting of which has enhanced the capacity of health and law enforcement sectors to develop proactive responses to illicit drug problems.

Summary of 2000 Victorian drug trends

Turning Point Alcohol and Drug Centre conducted the Melbourne arm of the 2000 IDRS project between June and July 2000. The project consisted of:

1. A quantitative survey of 152 current injecting drug users recruited from a number of sites across the Melbourne metropolitan area.
2. Semi-structured interviews with 29 key informants from a variety of professional settings, selected according to their knowledge about illicit drug use, and level of contact with illicit drug users during the six months preceding the survey.
3. Analysis of secondary illicit drug use indicators (eg. blood-borne viruses, overdose, arrests, needle/syringe distribution)

Data collected via these three methods were analysed and cross-validated in order to identify illicit drug related trends in Melbourne. Where appropriate, these data were also compared to findings from the 1997, 1998 and 1999 applications of the IDRS in Melbourne. The 2000 IDRS detected a number of trends of relevance during the preceding six to twelve months. Table A provides a summary of identified trends in price, availability, purity and prevalence of use for the four main illicit drug types explored in this study – heroin, amphetamines, cocaine and cannabis.

Table A. Price, availability, purity and prevalence of use for heroin, amphetamine, cocaine and cannabis in Victoria.

	Heroin	Amphetamine	Cannabis	Cocaine
Price				
Cap	\$50 ^a	-----	-----	\$80 ^d (unreliable)
Gram	\$300 (stable)	\$50 (stable)	\$20 (stable)	\$250 (stable)
Ounce	-----	\$800 (fluctuating)	\$280 (decreasing)	-----
Availability	Readily available in last 6 months	Readily available in last 6 months	Readily available in last 6 months	Difficult to obtain in last 6 months
Purity^b	54% Decrease	15% Small increase	Medium – High ^c Stable ^c	53% Stable
Prevalence of use	Apparent increase in frequency &	Apparent increase in prevalence of use in last 6 months	Commonly used drug	Low levels of use among IDU

	quantity	Low use frequency	Apparent increase in use prevalence	
--	----------	-------------------	-------------------------------------	--

^a \$50 caps or deals have become more commonly available within Melbourne street markets.

^b Based on the purity of drug seizures made by AFP and Victoria Police.

^c Based on IDU and key informant estimates of THC potency.

^d Based on n=3 reports (range \$50-\$250)

Heroin use in Melbourne

After a period of decreasing heroin prices and increasing purity, these variables appear to have stabilised recently within the Melbourne heroin market. Of particular note is that the prevalence and availability of \$50 heroin deals (between 0.09gm – 0.15 gm) noted in the 1999 Melbourne IDRS study has increased according to evidence from the 2000 study. It appears that smaller deals or ‘caps’ of around 0.03gms costing \$20-\$25 are now rarely purchased / available within street markets. Reports suggest that heroin remained readily available within Melbourne’s persistent street markets during the first six months of 2000. However, there has been some indication that users are accessing mobile dealers and dealer residences more often. Heroin injectors are reportedly using the drug more frequently and in increasing amounts, probably due to growing rates of dependence. Reports also indicate that there is a significant prevalence of heroin burning, and that there has been a continuing increase in the numbers of people using heroin (particularly younger initiates and diverse social groups). Information available from secondary indicators of injecting drug use and associated harms, suggest that heroin-related health and social problems have increased in Victoria throughout the 1990s.

Amphetamine use in Melbourne

The reported price, purity and availability of amphetamines have remained stable across the four years of the Victorian IDRS. Findings from the 2000 IDRS study suggest that the prevalence of amphetamine use among injecting drug users in Melbourne is low, and that the drug is predominantly sourced through social networks and home-based dealers (rather than on the street). The apparent low prevalence of amphetamine use in Melbourne has previously been interpreted as due to the typically low purity of the drug in this jurisdiction. While low purity levels of law enforcement methamphetamine seizures have remained relatively stable during the past four years of the study, reports were received this year on the availability of ‘pure’ amphetamines in Melbourne. A significant number of respondents indicated that they had purchased pure 0.1gm amounts of amphetamines (costing \$50) and pure gram amounts (costing \$200) during the first six months of 2000. Some reports suggest that

methylamphetamine hydrochloride ('ice', 'shabu') is emerging within the injecting drug scene in Melbourne on a recreational basis. Further in-depth investigation of this trend is warranted.

Cocaine use in Melbourne

Relatively few key informants or injecting drug users were able to comment on Melbourne cocaine trends. While the cost of gram amounts of cocaine has remained stable, low numbers of highly variable reports on cocaine 'caps' confirm that the drug continues to be used infrequently by the injecting drug users accessed through the IDRS study. The evidence suggests that cocaine is at present not available within street-based heroin markets in Melbourne.

Cannabis use in Melbourne

The Melbourne cannabis market and patterns of use continue to be relatively stable with only a slight reduction in ounce prices. Reported cannabis availability, perceived potency and use frequency and quantity have remained unchanged between 1997 and 2000. Some reports were received to indicate that cannabis hash is being used more often by injecting drug users, and that the prevalence of use may have increased recently. Cannabis appears to be the most widely used illicit drug within Victoria, and is commonly used concurrently with a range of other illicit drugs by injecting drug users.

Other drug use in Melbourne

The 2000 Melbourne IDRS study has yet again provided evidence of significant prescription drug use by injecting drug users (eg. *Panadeine forte*®, morphine, benzodiazepines and anti-depressants). Of particular concern is the apparent increase identified in the prevalence of benzodiazepine injection (mostly *Normison*® capsules) amongst injecting drug users, and reports of the existence of a street-based black-market for benzodiazepines. Further research is planned to investigate this issue in greater detail.

Drug-related issues

A number of concerning trends are apparent in relation to health problems associated with illicit drug use. These include:

- Continuing reports from IDU's of injecting-related health problems (eg. injection-site scarring, infections and other damage).

- A continuing high number of heroin-related fatalities in 2000.
- A continuing increase in the occurrence of non-fatal heroin-related overdoses requiring ambulance attendance.
- High rates of hepatitis C virus infection among injecting drug users, coupled with persistent unsafe injecting behaviour.
- Continuing IDU involvement in crime (mostly dealing and property crimes), and perceived increase in police activities focused on street-level IDU's.
- A high and often unmet demand for treatment services for individuals experiencing problems with heroin use.

Implications of the findings for future research

While the aim of the IDRS study is to gather evidence that points to emerging trends in illicit drug use and related problems within the community, it is not intended as a comprehensive and detailed investigation of illicit drug trends. The role of the Melbourne arm of the IDRS study is to identify yearly illicit drug use trends, and provide recommendations regarding key areas and issues that warrant further in-depth investigation.

The findings of the 2000 Melbourne IDRS study suggest the following priority areas for future research:

1. Research to explore the nature of benzodiazepine use among injecting drug users, the characteristics of the illicit benzodiazepine market in Melbourne, prescribing and dispensing practices, and the health harms associated with benzodiazepine misuse.
2. Continued monitoring of the characteristics and impact of cocaine use within Melbourne, with an increased focus upon target groups other than injecting drug users.
3. Further research to gain a better understanding of the determinants of unsafe injecting, particularly for those injecting practices that increase the risk of blood-borne virus transmission (eg. HIV, HCV and HBV).
4. Improved monitoring of the characteristics and impact of amphetamine type stimulant (ATS) use in Melbourne, including an increased focus upon target groups other than injecting drug users (eg. rave / dance scene, gay/lesbian target groups)

5. Further investigation of heroin burning / smoking, focusing upon initiation to use and factors associated with transitions to injecting drug use.
6. Research examining the potency and pharmacological properties of cannabis that is being grown and consumed within Victoria.

The Melbourne arm of the IDRS study has been a rapid, reliable, cost-effective and informative mechanism for the surveillance of illicit drug trends in Victoria. It yields data that are comparable from year-to-year and across jurisdictions, and it is a study that has much to offer health and law enforcement sectors in their efforts to respond more effectively to illicit drug trends. It is particularly effective in identifying emerging illicit drug trends that require further investigation and/or policy responses.

Turning Point Alcohol & Drug Centre is committed to ensuring that this important early warning system for illicit drug trends continues to provide quality information to stakeholders, and will be focusing future efforts on those opportunities that exist for improving this study locally.

1.0 INTRODUCTION

In 1998 the Commonwealth Department of Health and Aged Care commissioned the National Drug and Alcohol Research Centre (NDARC) to conduct the national Illicit Drug Reporting System (IDRS), following a successful pilot study in Sydney during 1996 and a multi-state trial of core methods in 1997 (Hando & Darke, 1998; Hando et al., 1998; Hando et al., 1997). The 1998 IDRS study was conducted in New South Wales, Victoria and South Australia (McKetin et al., 1999b). Each of these states applied the complete IDRS methodology (ie. IDU survey, key informant survey, secondary indicator data).

In 1999, the complete IDRS study was again conducted in New South Wales, Victoria and South Australia, with all other remaining states and territories collecting secondary indicator data and conducting interviews with key informants.

For the first time in the year 2000, all states and territories conducted the complete IDRS study. The Victorian, NSW and SA studies were funded by the Commonwealth Department of Health and Aged Care (CDHAC), as was the key informant and indicator components of the remaining jurisdictions. In addition, the WA, Tasmanian, QLD, ACT and NT IDU surveys were funded by the National Drug Law Enforcement Research Fund (NDLERF). In addition, NDLERF and the Drug and Alcohol Services Council (DASC) provided funding for the IDRS designer drugs module trial in NSW, QLD and SA.

The aim of the IDRS is to provide a rapid and reliable method of monitoring trends related to the use of opiates, cannabis, cocaine and amphetamines. The IDRS study provides nationally comparable data with respect to emerging trends in illicit drug use and related harms, and provides a basis for better informing future policy and research initiatives.

The *Victorian Drug Trends 2000* report summarises information collected during the months of June and July 2000 as part of the Melbourne arm of the 2000 IDRS study. This study replicates the three-part methodology used in 1997, 1998 and 1999 by incorporating:

- a survey of injecting drug users,
- interviews with key informants recruited from a variety of professional settings, and

- analysis of secondary indicators of illicit drug trends in Victoria.

The information provided by these three data collection methods has been used to identify trends in the characteristics of and harms associated with illicit drug use in Victoria. These trends primarily relate to that observed within metropolitan Melbourne. For details regarding illicit drug trends for the whole of Victoria, readers should refer to the *Victorian Drug Statistics Handbook* (Victorian Department of Human Services, in press-a).

Readers are also referred to the forthcoming 2000 IDRS national report, which presents state comparisons, and individual state and territory technical reports for further jurisdictional details. These are available from the National Drug and Alcohol Research Centre, University of New South Wales. A comparison of national IDRS data across the years 1996-2000 is also available in a recent technical report by Darke, Hall and Topp (2000.)

In addition, select findings from the Victorian IDRS 2000 study appear in the IDRS community report (Fry & Miller, 2001), which has been developed as a means of disseminating study findings in a readily accessible format to the community. Copies are available from Turning Point Alcohol & Drug Centre upon request.

Finally, the Victorian Drug Trends 2000 report contains a chronology of key drug-related events in Victoria for the financial year 1999/2000 (refer to Appendix A).

2.0 METHOD

2.1 Injecting drug user (IDU) survey

Structured face-to-face interviews were conducted with injecting drug users (IDU's) recruited from within the Melbourne metropolitan area between June and July 2000. To be eligible to participate in the IDU survey, respondents must have injected at least monthly in the six months prior to interview, and have resided in Melbourne for at least twelve months. Convenience sampling was facilitated by posted advertisements and recruitment notices distributed through Needle and Syringe Programs (NSP's), and snowballing methods (recruitment of friends and associates via word of mouth).

Seven agencies assisted the research team by agreeing to act as recruitment and interview sites for IDRS respondents:

- Springvale AIDS and Hepatitis Prevention Team
- AIDS Prevention and Health Awareness Program (APHAP), Youth Projects Inc., Glenroy
- St Kilda Crisis Centre
- Peninsula Youth & Family Services, Frankston
- Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS), Frankston;
- Western Region AIDS Prevention (WRAP), Footscray
- Turning Point Alcohol & Drug Centre Inc, Fitzroy.

A further five other agencies assisted with the distribution of recruitment notices:

- Melbourne Inner City Needle Exchange (MINE), Collingwood
- Prostitutes Collective of Victoria (PCV), St Kilda
- Dandenong Hospital AIDS Prevention and Support Unit
- Victorian Drug User Group (VIVAIDS), Carlton North

- AIDS Prevention Team, Inner South Community Health Service, St Kilda

The structured interview schedule employed in this study replicates that used in previous IDRS studies conducted in Melbourne. The interview schedule contained core questions relating to socio-demographics, drug use, price, purity and availability of drugs, crime, risk-taking behaviour, health and general trends. Minor amendments have been made to the structure of questions on the cost of recent drug amounts purchased in an attempt to collect more reliable drug price data. The duration of the interviews was approximately 45 minutes and participants were reimbursed \$20 for their time and out-of-pocket expenses. Ethics approval for this study was obtained from the University of Melbourne, Human Research Ethics Committee. Data analysis was conducted using SPSS for Windows Version 9.01 (SPSS Inc., 1996).

2.2 Key informant survey

A total of 29 key informants (18 male, 11 females) participated in telephone (n=28) and face-to-face (n=1) interviews between the months of June and August 2000.

Ten (39%) participants were recruited from the pool of key informants who had taken part in the 1998 IDRS study (Rumbold & Fry, 1999), nine of whom had also participated in the 1999 IDRS study (Dwyer & Rumbold, 2000). Three key informants had also taken part in the 1999 IDRS study alone. All other participants in the current study were recruited either as replacements for 1998/1999 participants drawn from the same agencies/services, or on the basis of referrals received from experienced professionals in the field. A total of 28 people from the pool of 1998/99 participants could not be contacted due to a change in employment or leave of absence, or they declined to participate this year because of self-identified lack of suitability (eg. less direct contact with illicit drug users) or prior commitments.

Key informants recruited for the current study included drug treatment workers (n=3), NSP workers (n=7), user group representatives (n=2), outreach workers (n=5), youth outreach workers (n=4), researchers (n=3), and police officers (n=3). Participants were selected on the basis of having had at least weekly contact with illicit drug users over the preceding six months, and/or contact with ten or more different illicit drug users during that period.

Key informant participants were screened after they had received sample copies of the key informant interview schedule, project information sheet and consent form. This provided an opportunity for prospective participants to make an informed decision about their suitability for the study, and also allowed participants to consider questions from the interview schedule prior to their interview. The key informant interview schedule included sections on patterns of drug use, availability of drugs, criminal behaviour and health issues.

Heroin was nominated by a majority (n=16) of Melbourne key informants as the main illicit drug used by the people with whom they had most contact. Reports on primary cannabis users were received from 4 key informants. Five key informants were able to nominate amphetamines as a major drug group used by the people with whom they had contact, and a further three key informants were able to report on MDMA / ecstasy as the main illicit drug used. One key informant was able to report on steroids and human growth hormones as the main illicit drug used. Members of the Victoria Police Drug Squad were also able to comment on trends in heroin, cocaine, amphetamine and cannabis use in Victoria.

Key informant interviews took an average of 58 minutes to complete (range = 25-90 mins). The interviewer made detailed notes during the interview, and raw data were transcribed and coded soon after the conclusion of the interview using Microsoft Access 2000. Content analysis was used for open-ended responses (Kellehear, 1993). Single reports from key informants have been presented where they were deemed reliable by the interviewer, and where the information provided contributed to an explanation of particular trends. Categorical data for key informant estimates of drug price, purity and availability were analysed using SPSS for Windows V9.01 (SPSS Inc., 1996) and analysed using standard descriptive statistics procedures.

2.2.1 Validity of key informant reports

The majority of key informants based their reports on information they had obtained either through client contact within their particular work place or service (n=18), personal experience (n=2) or both (n=9). The reported sources of information included contact with drug users/clients (n=25), discussion with colleagues (n=19), observations (n=17), the media (n=1) and one key informant reported the Internet and virtual communities as a source of information. Participants were confident regarding their knowledge of the groups they were reporting on, and about the information they provided during the interview. Most key informants (n=22) rated their knowledge as either “good” or “excellent”, and nearly reported

that they were “very certain” (n=23) about the information they had provided during their interview.

Eighteen (62%) of the 29 key informants reported daily contact (5 to 7 days per week) with a range of client groups during the preceding six months. The average number of reported contact days in that time period was 121 (range = 10-180 days). Most key informant participants (79%) reported contact with between 51 and more than 100 illicit drug users during the six months prior to interview.

Special populations were well represented. In the six months prior to interview, key informants had contact with client groups including: people who engage in injecting drug use (69%); youth (52%); people from non-English speaking backgrounds (30%); women (10%); people with prison histories (38%) and indigenous peoples (20%). In addition, a number of key informants reported contact with young people involved with the juvenile justice system, people from the gay and lesbian community and male and female sex-workers.

2.2.2 Feedback seminar

Prior to preparation of the final Victorian Drug Trends 2000 report, a feedback seminar was held for study key informants and the staff of participating recruitment and interview sites. The main purpose of this seminar was to provide timely dissemination of IDRS 2000 findings directly to those professionals in direct contact with illicit drug users. The seminar also served as an opportunity to test the face validity of our preliminary analyses and interpretation of key informant and IDU reports about illicit drug use trends within Melbourne.

2.3 Indicator data

Information collected from the IDU survey and key informant interviews was supplemented by data obtained from a number of secondary indicator sources of illicit drug use and related morbidity and mortality. Where possible, data relating to trends for the entire year are reported, however for some indicators where current data is not available, the most recently available data has been included.

Indicator data gathered for this study included (in order of reporting):

Drug seizure purity levels

- The Victoria Forensic Science Centre conducts purity analyses for drug seizures made by the Victoria Police. The drugs tested include heroin, cocaine, and amphetamines, and the Australian Bureau of Criminal Intelligence (ABCI) collates this information. The potency of cannabis (ie. THC content) is not currently tested. 2000 purity data have been obtained from the ABCI and also include purity analyses of Victorian seizures made by the Australian Federal police (AFP).

Surveys reporting on illicit drug use prevalence in Victoria

- The 1998 Victorian Drug Household Survey was the third in a series of Victoria-specific surveys undertaken in conjunction with the National Drug Strategy Household Surveys. A total sample size of approximately 1400 individuals aged 14 and over was obtained (Australian Institute of Health and Welfare, 1999). The survey covered the following illicit drugs: cannabis, amphetamines, hallucinogens, cocaine, ecstasy/designer drugs, and heroin. Respondents were asked whether they had ever used these drugs and whether they had used them within the past twelve months, along with basic questions about poly-drug use. This survey provides the most recent measures of the prevalence of illicit drug use within the
- The Victorian School Students and Drug Use Survey is conducted on behalf of the Victorian Department of Human Services (in press-b) as part of a national survey auspiced by the Australian Cancer Society. In 1999, the survey was conducted in Victoria by the Anti Cancer Council and included 4283 respondents across secondary school years 7-12.
- The Australian Needle and Syringe Program (NSP) Survey has been conducted during one week of each year since 1995. It is conducted by the National Centre in HIV Epidemiology and Clinical Research (2000) on behalf of the collaboration of Australian Needle and Syringe Programs, and is designed to supplement sentinel BBV surveillance efforts via a short questionnaire on demographic and behavioural characteristics of NSP clients and serological testing of finger-prick blood samples. In 1999, the survey obtained data from 214 clients across three NSP's in Melbourne.

Needle and Syringe Program distribution and return rates

- The Needle and Syringe Program (NSP) was established in 1987. The Victorian program records the number of needle/syringes distributed and returned, the number of clients and

basic client demographics. An electronic database is managed by the Victorian Department of Human Services and is collated on a quarterly basis. This database also includes needles/syringes purchased by pharmacies for distribution.

Specialist drug treatment presentations

- The Department of Human Services funds community-based agencies to provide alcohol and drug treatment services across Victoria. The collection of client information is a mandatory requirement. A formalised client data collection system was developed in the 1980s called the Drug and Alcohol Information System (DAISy). This system was superseded by a new system in 1996 called the Alcohol and Drug Information System (ADIS). ADIS data for the period 1998/1999 is presented in this report.
- The Drugs and Poisons Unit (DPU) of the Department of Human Services maintains a database that records all methadone permits in Victoria. This is the major source of information regarding the characteristics of clients of the Victorian methadone program and is an important source of information regarding treatment for opiate dependence. Data from the DPU quarterly phone census (ie. call to all pharmacies requesting the number of clients who are given their methadone dose on a particular day) is presented in the current report.
- Direct Line is a 24-hour specialist telephone service in Victoria that provides counseling, referral and advice about drug use and related issues. All calls to Direct Line are logged to an electronic database that can provide information about caller drugs of concern, calls from drug users, and calls about drug users.

Melbourne Metropolitan Ambulance Service (MAS) attendances at non-fatal drug overdoses

- This electronic database is managed by Turning Point Alcohol and Drug Centre and contains information obtained from MAS Patient Care Records (Dietze, Cvetkovski, Rumbold, & Miller, 2000). Reliable data is available from June 1998. Although the database includes overdose-related calls for all types of drugs, the data set is most suited to the monitoring of non-fatal heroin related overdose due to the availability of a biological marker of heroin involvement (ie. the administration of *Narcan*® and subsequent patient response).

Heroin-related fatalities

- Mortality information regarding illicit drug-related deaths was obtained from data collated by the Victorian Institute of Forensic Medicine (VIFM) and the Victorian State Coroner (Gerostamoulos, Staikos, & Drummer, 2000). This data contains the results of toxicology and pathology analyses conducted on homicides, suspicious deaths, suicide, drug-related deaths, motor vehicle and industrial fatalities.

Blood borne virus surveillance data

- Blood borne viruses, and in particular HIV/AIDS and hepatitis B (HBV) and C (HCV) are a major health risk for individuals who inject drugs. The National Notifiable Diseases Surveillance System has been established in Australia for the purposes of monitoring the spread of these diseases (O'Brien et al., 1999). The Department of Human Services records statutory notifications of diagnoses of HIV, HBV and HCV in Victoria (Victorian Department of Human Services, 2000b).
- All newly diagnosed cases of HIV are reported to the National Centre in HIV Epidemiology and Clinical Research and reported separately (National Centre in HIV Epidemiology and Clinical Research, 2000). There are problems with the interpretation of this data in terms of monitoring incidence trends. For example, many injecting drug users who have been exposed to HCV may not undergo routine testing. Further, it is difficult to determine whether the notifications represent new infections or repeat testing of prevalent cases. Nevertheless, this system is useful for surveillance purposes.
- HIV, HBV and HCV prevalence is also recorded for individuals who are seen at metropolitan sexual health centres who identify themselves as injecting drug users and for injecting drug users attending Needle Syringe Programs (National Centre in HIV Epidemiology and Clinical Research, 2000).

Drug-related arrest data

- Prior to 2000, information pertaining to drug-related arrests in Victoria was obtained for IDRS purposes from data collated by the Australian Bureau of Criminal Intelligence (ABCI). Victorian arrest data presented in the current report has been accessed from the Victoria Police Statistical Services Branch, and is derived from the Law Enforcement Assistance Program (LEAP) database.

3.0 CURRENT DRUG SCENE AND RECENT TRENDS

3.1 Overview of IDU sample

A total of 152 current injecting drug users (IDU's) were interviewed. The sample was drawn from 57 suburbs within the western, northern, inner-city and outer south-eastern areas of Melbourne (26 different local government areas). Figure 1 shows that most of the participants lived in close proximity to the six recruitment sites of St Kilda (n=41), Springvale (n=20), Glenroy (n=20), Frankston (n=25), Footscray (n=25) and Fitzroy (n=21). Eleven percent of participants in either the IDU survey were of 'no fixed address'. These individuals were interviewed in either St Kilda (n=10) or Glenroy (n=5).

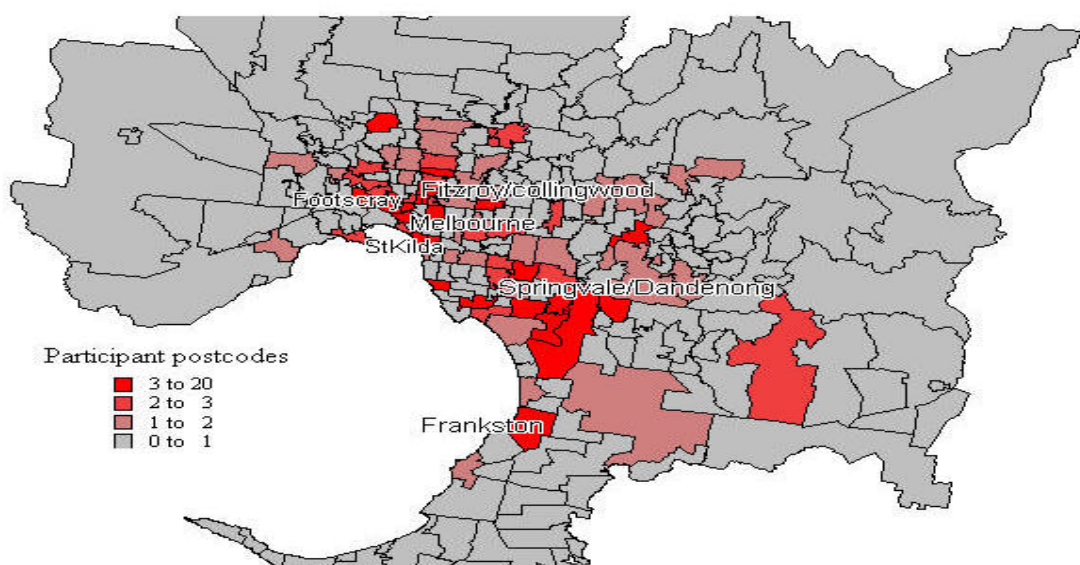


Figure 1. Residential postcodes of the 2000 IDU survey sample.

The demographic characteristics of the 2000 sample are summarised in Table 1. The majority of participants were male (64%) and ranged in age from 17 to 47 years with a mean age of 28 years (SD 7.35). The majority of participants (73%) were not currently employed, and half had acquired trade/technical (43%) or university qualifications (7%) post secondary school. Over a third (36%) of the respondents were currently receiving drug treatment.

Table 1. Demographic characteristics of the 2000 IDU survey sample (N= 152).

Sample characteristics	
Age (Mean years)	28 (range 17 to 47)
Gender (% Male)	64
Ethnicity (%):	
English speaking background	93
Non-English speaking background	7
Aboriginal or Torres Strait Islander	6
Employment (%):	
Not employed	73
Full time	7
Part time/casual	8
Student	2
Home duties	3
Sex worker	7
School education (mean years)	11
Tertiary education (%):	
None	49
Trade/technical	43
University/college	7
Prison history (%)	43
Treatment history (%):	
Currently in treatment	36

The most common types of drug treatment for this group were methadone maintenance (52%) and drug counseling (30%). For the group of respondents currently in treatment (n=54) the mean length of time that they had been engaged in their current treatment type was 14 months, though this varied considerably (SD 18.4). Twenty-nine people (58%) had been in treatment six months or less (mostly methadone or drug counseling), and 13 people (26%) for two years or more. A small proportion (9%) reported that they had used naltrexone in the past six months (prescribed by a doctor). One person reported inadvertent use due to being sold a fake deal of heroin.

The demographic characteristics of participants in the IDU survey were generally similar to those of the sample recruited in 1999 (Dwyer & Rumbold, 2000a). However, a higher proportion of participants in the 2000 study (43%) reported having completed trade/technical courses post-secondary school (compared to 29% of 1999 respondents), and fewer respondents in 2000 (7%) had completed university/college courses (compared to 14% in 1999). The mean age of participants from each of the interview sites was generally the same

from 1999 to 2000, except for Frankston where it was lower in 2000 (27 versus 25) and Springvale where it was higher in 2000 (23 versus 28).

Further analyses revealed that there were no systematic socio-demographic differences (ie. age, treatment status, gender or education) between groups of participants recruited from the six study interview sites in 2000.

Interestingly, participants recruited from the St Kilda interview site were significantly more likely to be employed (44%) compared to those recruited from Glenroy (19%), Frankston (15%), Fitzroy (10%), Springvale (2%) or Footscray (10%) ($\chi^2=14.90$, $df=5$, $p<0.05$). This difference appears to be related to the fact that 56% of employed participants recruited from St Kilda ($n=18$) reported that they were sex industry workers. Indeed the Prostitutes Collective of Victoria was one of the IDU survey recruitment agencies in 2000

3.2 Drug use history of the IDU sample

3.2.1 Duration of injecting career

The mean reported age at first injection of a drug was in the late teens (18.4 years, SD 4.4), ranging from 11 to 36 years. The mean number of years since first injection to the present was 10 years (SD 6.75). There was considerable variation in the length of experience of injecting drug use among those surveyed. A third of participants (33%) first began injecting drugs within the last five years, whereas 11% ($n=16$) had first started injecting 20 years ago or longer. The drugs most frequently used on the first injection occasion were amphetamines (60% compared to 49% in 1999), and heroin (38% compared to 46% in 1999).

This difference between the 1999 and 2000 IDU samples appear unrelated to the age distribution of each group. That is, 37% of the 2000 sample were aged 25 years or less (compared to 35% of 1999 sample) and 63% aged 26 years and above (compared to 65% of the 1999 sample). Similarly, as noted earlier there was also no significant difference between the mean age of respondents recruited and interviewed across the six study sites.

Similar to the findings of 1998 and 1999 IDRS studies, length of injecting career was predictive of drug type injected first. Participants of the 2000 survey who had commenced injecting within the last five years were more likely to have injected heroin first (74%) than

amphetamines (24%) ($\chi^2=46.67$, $df=9$, $p<0.001$). This group represented 64% of all participants ($n=58$) who indicated that heroin was their first drug injected.

As expected, age was also predictive of drug type injected first, such that those 2000 participants who were 25 years or younger were more likely to have injected heroin first (62%) than amphetamines (39%) ($\chi^2=20.72$, $df=3$, $p<0.001$).

3.2.2 Drug use history (last 4 weeks)

The majority of the sample reported that heroin was the drug that they had most often injected in the past month (93%), and the last drug that they had injected (92%). However, fewer participants (80%) nominated heroin as their drug of choice, and 12% nominated cannabis. Few respondents nominated other drugs such as amphetamines (5%), cocaine ($n=2$) or ecstasy ($n=2$) as their drugs of choice.

Table 2. Frequency of injection during the last month (IDU survey, $N=152$).

Frequency of injection during last month	%
Not in the last month	3
Weekly or less	6
More than weekly	22
Once a day	22
Two to three times per day	33
More than three times per day	14

Table 3. Amount spent on illicit drugs on day prior to interview (IDU survey, $N=152$).

Amount (\$)	%
Nothing	26
Less than \$20	1
\$20-49	13
\$50-99	16
\$100-199	24
\$200-399	15
\$400 or more	5

The majority of respondents (69%) had engaged in drug injection at least once a day during the month prior to interview (refer to Table 2). Table 3 shows that approximately three quarters (74%) of the sample had purchased illicit drugs on the day before interview. Just under a third of these participants (29%) had spent between \$20 to \$99, and 44% more than \$100.

Table 4 shows that 55% of the IDU sample reported that they had last injected in a private home while others had injected in public locations such as public toilets (17%), the street/park or beach (15%), or in a car (8%).

Table 4. Location in which respondents had last injected (IDU survey, N=152).

Last injecting location	%
Private home	55
Public toilet	17
Street/park or beach	15
Car	8
Other (eg stairwell, car park)	5

The reported locations of last injection were similar to those reported by 1999 IDU survey respondents. Interestingly, participants interviewed in Glenroy, St Kilda and Frankston were more likely to have last injected in private, whereas those interviewed in Footscray and Springvale were more likely to have injected in public ($\chi^2=13.78$, $df=5$, $p<0.05$).

3.2.3 Drug use history (last 6 months & lifetime)

Table 5 shows the self-reported last six months and lifetime licit and illicit drug use history of the IDU survey sample, as well as routes of administration and recent frequency of use. The majority of respondents reported lifetime use of tobacco (100%), heroin (99%), amphetamines (90%), cannabis (94%), alcohol (93%), and benzodiazepines (85%).

The median number of drug classes ever used by respondents was ten, while a median of six drugs had been used in the preceding six months. Tobacco and heroin were the drugs most frequently used on a day-to-day basis during the previous six months. Significant numbers had also used cannabis (85%), benzodiazepines (74%), alcohol (72%), amphetamines (53%) and other opiates (50%) in this period.

A variety of drugs had been injected with a median of two types in the preceding six months and three types ever. The most commonly reported drugs injected in the last six months were heroin (95%), amphetamines (50%), benzodiazepines (36%) and other opiates (34%). IDU survey respondent usage of drugs other than heroin, amphetamines, cocaine and cannabis is discussed in section 3.7.1 of this report.

The demographic characteristics of the Victorian 2000 IDU sample are similar to previous Victorian IDU samples recruited through NSP's (Dwyer & Rumbold, 2000a; Rumbold & Fry, 1999) as well as that reported by the Australian Needle and Syringe Program (NSP) Survey (National Centre in HIV Epidemiology and Clinical Research (2000)). Noteworthy year-to-year differences observed across successive Victorian IDU survey samples are discussed in the following sections of this report.

Table 5. Drug use history of IDU sample (N=152).

Drug Class	Ever used %	Ever injected %	Injected last 6 months %	Ever smoked %	Smoked last 6 months %	Ever snorted %	Snorted last 6 months %	Ever swallowed %	Swallowed last 6 months %	Used last 6 months %	Median number of days used in last 6 months by those using the drug
Heroin	99	99	95	57	21	28	5	27	14	98	176
Methadone	66	17	3					62	36	38	170 [#]
Other opiates	68	38	24	9	3	1	2	56	40	50	7.5
Amphetamines	90	89	50	15	4	70	20	42	11	53	6
Cocaine	51	36	6	7	1	36	8	6	2	13	2.5
Hallucinogens	70	16	2	1	0	0	0	70	16	16	2.5
Ecstasy	49	15	8	1	1	6	2	47	24	24	3
Benzodiazepines	85	49	36	14	2	1	1	82	71	74	18
Steroids	1	1	1					1	0	1	12 [*]
Alcohol	93	6	2					93	73	72	12
Cannabis	94									85	90
Anti-depressants	41									27	120
Inhalants	23									5	2
Tobacco	100									100	180
Poly-drug use (Median drugs used)	10	3	2							6	

[#] For respondents currently engaged in methadone maintenance treatment (n=28)

^{*} n=1

3.3 Heroin use in Melbourne

Trends in heroin use were identified from information obtained from 16 key informants, the 97% of the IDU sample who felt confident to comment on heroin trends, and data from secondary indicators of heroin use and associated harms.

3.3.1 Price

The median price of heroin reported by IDU participants was \$300 per gram (n=38) and \$50 per 'cap' (n=90). The term 'cap' has previously been defined as a generic descriptor for smaller amounts of heroin available within street-based heroin markets – typically costing \$20-\$25 for approximately 0.03gm (Dwyer & Rumbold, 2000). The average reported prices for the 'cap' category asked about in 2000 suggest that the smaller \$20-\$25 deals were less available in Melbourne during the first six months of the year.

Table 6a summarises the modal (most frequently reported) price of heroin in Melbourne reported by the injecting drug users who participated in the 1997, 1998, 1999 and 2000 IDRS studies. These figures show an apparent increase in 'cap' prices in Melbourne to \$50 in 2000, after a period of little change from 1998 to 1999. Rather than representing a real increase in prices of the traditional '\$20-\$25' cap (approximately 0.03gm), the modal price of \$50 per cap reported in 2000 reflects the fact that \$20-\$25 caps are now less available within Melbourne's street-based markets. Fifty-dollar caps or deals have become the smallest size heroin deal typically available within street markets.

Further confirmation of this may be seen in Table 6b, which shows the reported price of last amounts of heroin purchased by IDU survey participants during the previous six months. This table shows that the modal price consistently reported for the last 'cap', 'rock' and '1/8gm' purchased by participants during the last six months was \$50.

There are a number of possible explanations for the apparent increased prevalence of \$50 street heroin deals. This may reflect increasing tolerance to heroin or increasing levels of dependence amongst NSP clients interviewed for the IDU survey, such that they need to purchase larger quantities. It is also possible that the increased prevalence of \$50 deals is due to a dealer decision to move away from quantity discounts (eg providing two \$25 deals for \$40) for clients. Another plausible explanation is that this shift is due to buyer preferences for

\$50 deals because they represent better value for money when splitting/sharing between more than one user (ie. a \$50 deal is typically larger than two \$25 deals).

A total of 63% of the sample reported that the price of heroin had been stable over the previous six months, while 10% reported that the price had increased and 18% that it had decreased. A further 8% reported that heroin prices had fluctuated in this time. Further analysis revealed that participant perceptions of price trends were significantly related to their most frequent location of injection during the last four weeks. Participants who mostly injected in private locations were more likely to report that prices had been stable during the last six months (70%) compared to people who had mostly injected in public (50%) ($\chi^2=9.74$, $df=4$, $p<0.05$).

Compared to the 1999 Victorian IDRS study, more participants of the current study thought that heroin prices had been stable, while less reported price increases during the previous six months. In particular, the reported price per gram of heroin appears to have stabilized over the period 1999 to 2000, after an observed decrease over the 1997 to 1999 period.

Table 6a. Modal prices of heroin in Melbourne reported by IDU survey respondents 1997-2000.

	1997	1998	1999	2000
Heroin				
\$/cap	30-40	20-25	20-25	50 ¹
\$/gram	450	400	300	300

¹The modal 'cap' price reported for 2000 refers to a larger quantity of heroin to that reported in previous years

Closer inspection of the heroin prices reported by participants reveals that while most people report that heroin 'caps' cost \$50, the range of other prices reported suggest that a small number of respondents are still able to purchase smaller quantities such as \$20 to \$25 deals (ie. approximately 0.03gm). For example, six of the participants who were able to report on the price of the last 'cap' they purchased indicated that they paid between \$20-\$25.

Table 6b shows the prices reported by IDU survey participants for various quantities of heroin they may have purchased within the last six months. Modal prices reported for 'cap' and gram amounts are consistent with those reported in Table 6a.

Table 6b also reveals that the range of prices reported for the larger quantities of heroin is quite variable. This suggests that prices for larger quantities of heroin are less stable (ie. higher price range), compared to the more frequently reported quantities less than 1/4gm.

Table 6b. IDU reported prices for heroin quantities purchased during previous 6 months.

Amounts of heroin purchased (last 6 months)	n	(%)	modal price (\$)	price range (\$)
last cap	53	(35)	50	20-50
last rock	53	(35)	50	35-100
last 1/8 gram	2	(01)	50	50-60
last 1/4 gram	7	(05)	100	90-100
last 1/2 gram	44	(29)	150	100-200
last gram	22	(14)	300	150-400

The prices reported by key informants for cap (range \$25-\$50) and gram (\$200-\$400) quantities of heroin were generally consistent with those reported by IDU survey respondents. A significant feature of key informant reports (n=6) was the reference made to the increased availability of the larger \$50 and \$100 heroin deals within street-based markets. Six key informants commented that it was harder to obtain ‘caps’ of heroin (ie. \$20-\$25 / 0.03gm deals) and that sellers were showing a preference for selling heroin in either \$50 or \$100 amounts. Key informants suggested that this trend may be explained by an increasing desire on the part of dealers to minimise their time in the street-based market as a consequence of police activity.

3.3.2 Availability

The majority of IDU respondents reported heroin as either easy (10%) or very easy (88%) to obtain, and that this had not changed in the past six months (77%). Fewer people reported that heroin had recently become more difficult to obtain (11%), that it was easier to obtain (5%) or that availability had fluctuated (5%). Most participants reported that they usually scored/purchased heroin from street dealers (47%) or mobile dealers (24%), while others accessed heroin at the dealer’s home (19%) or friends (8%). Interestingly, more IDU’s in 2000 reported that they had purchased heroin from mobile dealers (24%), than did the 1999 participants (8%).

Similarly, key informants reported that heroin was currently very easy to access (92%), and that over the last six months the availability of heroin had been stable (n=9) or easier (n=3). Key informants explained that the persistence / continuing operation of multiple street-based market places throughout Melbourne had ensured that heroin remained easily available. Most key informants had not observed any lasting changes in the numbers or types of people selling heroin over the past twelve months, noting instead that temporary fluctuations in “faces and

places” occur as a result of street market displacements caused by police activity. Four key informants reported an increase in ‘on-selling’ user dealers.

3.3.3 Form and purity

A higher proportion of the IDU sample reported that they purchased heroin rock (95%) compared to powder (68%) in the previous six months. The most common route of administration was injection (95%), although a significant minority (21%) reported ‘smoking’ the drug (ie. heating heroin and inhaling the resulting vapors) in the preceding six months. All key informants reported the use of heroin rock with three also noting the use of heroin powder. Two key informants speculated however that the so-called rock-form heroin on the street was compressed powder rather than true rock.

Consistent with IDU reports, the primary route of administration identified by key informants was injection although 10 reported some contact with people who smoked heroin (ie. ‘burning’) and one reported contact with people who snorted heroin. Burning was reported to be more common among young South East Asian users. Most key informants that had contact with heroin smokers suggested that many people who had initially commenced heroin use through “burning” eventually made a transition to intravenous use as their heroin tolerance levels increased.

Purity was reported as being medium (42%) to high (14%) by the majority of respondents in the IDU survey, and a further 34% of participants reported that heroin purity was low. There did not appear to be any clear trends in the perceptions of purity within the past six months as reported by the respondents on the IDU survey with 30% describing it as stable, 30% describing it as decreasing and 20% as fluctuating.

A further 14% reported that heroin purity had increased recently. Key informants also reported that the purity of heroin was medium (n=4) to high (n=8), with six key informants reporting purity was stable, two reporting it had decreased and two that it fluctuated. Three key informants believed purity had increased in the preceding six months.

The average purity level of heroin seizures made by law enforcement agencies in Victoria during the 1999/00 financial year is shown in Figure 2. Purity figures shown here do not represent the purity levels of all heroin seizures made during this time period – only those that have been analysed. The mean purity of heroin seizures tested (n=1971) during this period was 54% (range 1-97%). As shown in this figure there was relatively little fluctuation in

purity during the year apart from a slight decrease in the last quarter (April to June), and there was no difference in the average purity of amounts less than 2 grams compared to larger amounts (2 or more grams). Closer inspection of these data reveal significant variability in the purity of seizures tested, suggesting that there is little quality advantage in purchasing larger amounts of heroin.

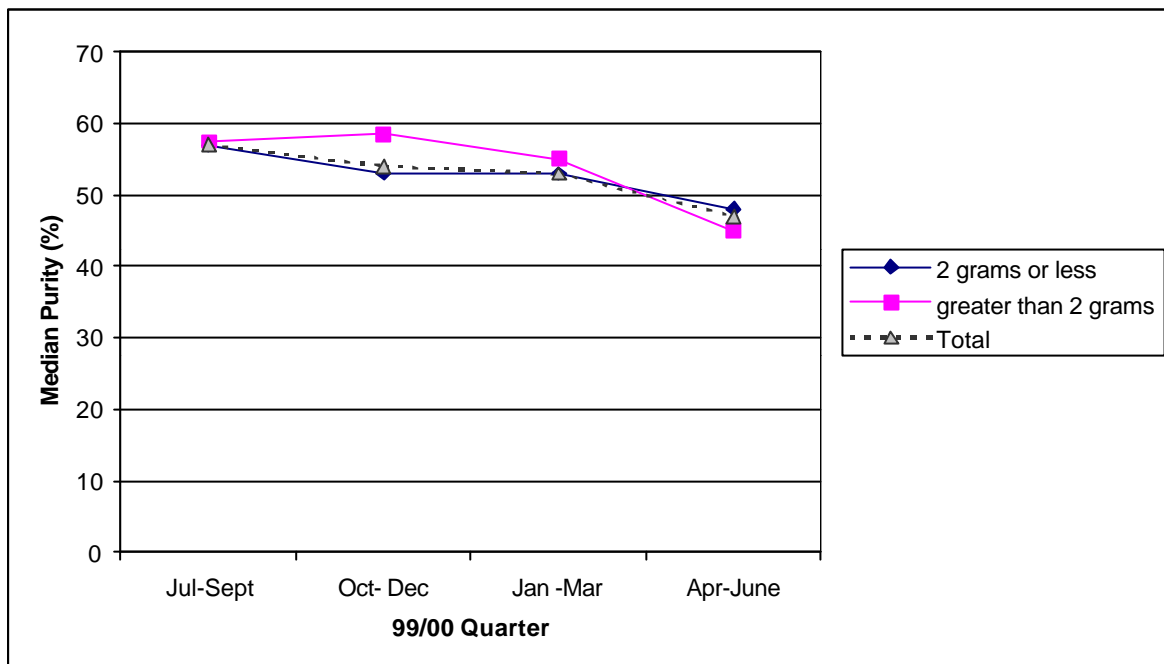


Figure 2. Purity of heroin seizures by Victorian law enforcement in each quarter of 99/00 (Australian Bureau of Criminal Intelligence).

Figures available from Australian Forensic Police (AFP) seizures in Victoria during the same time period, show that the average level of purity for tested quantities of two grams or less was 53% (n=20) (range 1 to 74%), whereas only two cases were available for tested seizures of greater than two grams (average purity = 74.5%).

The mean purity level of heroin seizures made by law enforcement agencies in Victoria during the period from 1995/96 to 1999/00 is summarised in Table 7. These data demonstrate that the relatively high average level of heroin purity observed in 1997/98 continued through 1998/99, though decreased during 1999/00. It is difficult to interpret this decrease as year-to-year variations may be caused by different policing operations or seizure analysis schedules. The significant variability in purity levels of tested heroin seizures (both small and larger amounts) shows that heroin purity can fluctuate during the year.

Table 7. Average purity level of heroin seizures in Victoria for 95/96 to 99/00.

	1995/96 %	1996/97 %	1997/98 %	1998/99 %	1999/00 %
Heroin	48-57 (quarterly figures)	35	62	69	54

Source: Australian Bureau of Criminal Intelligence

3.3.4 Patterns of heroin use

Prevalence of heroin use

Data on the prevalence of drug use in the community is typically derived from large-scale population surveys. The most recent household surveys from which estimates of heroin use within the community are available include: the 1998 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 1999), and the 1995 Victorian Drug Household Survey (Drug Treatment Services, 1996).

Based on a random stratified sample of 1530 Victorians in 1998, the National Drug Strategy Household Survey reported that 1% of the Victorian population aged 14 years and above had used heroin within the past 12 months (Australian Institute of Health and Welfare, 1999). This represents an increase on the 1995 Victorian Drug Household Survey estimate of 0.2% use in the last 12 months (Drug Treatment Services, 1996), however this figure is based on two responses only.

The reported prevalence of heroin use derived from the 1999 Victorian School Students and Drug Use survey is similarly low. Lifetime non-medical opiate use was reported by between 1.7% (year 7) to 3.8% (year 11) of 4283 respondents (Victorian Department of Human Services, in press-b).

Prevalence estimates from population surveys such as these should only be considered reliable for more commonly used drugs such as tobacco, alcohol, and cannabis. This is because there is a lower population prevalence of use of drugs like heroin, amphetamines and cocaine. There may also be cause to question the reliability of survey responses surrounding illegal and undesirable behaviour. Finally, household survey samples such as these commonly under-represent minority groups such as homeless people (Victorian Department

of Human Services, in press-a). Concerns such as these make it necessary to supplement these data with information from other indicator sources in order to obtain a more accurate picture of drug use prevalence.

Recent work by Hall and colleagues (2000) using convergence estimates based on indicator data from a number of sources provides a more accurate picture. Using estimation methods such as back projection, capture-recapture and multiplier estimates, the median number of dependent heroin users in Australia reported by Hall et al (2000) was 74,000 (range 67,000 – 92,000). Taking this median national estimate the population prevalence of dependent heroin use in Australia was reported at 6.9 per 1000 adults aged between 15-54 years. Further analyses show that the estimated number of 19,600 opioid dependent persons in Victoria accounts for 27% of the national estimate, compared to NSW where 35,400 represent 48% of the national estimate.

To date, there have been no published Victorian studies that have utilized capture-recapture or similar estimation methods for the purpose of providing more accurate estimates of the prevalence of heroin use in Victoria (Kutin, Rumbold, & Dietze, 1997). However, Hall and colleagues (2000) conclude that there has been an overall increase in the number of dependent heroin users in Australia during the 1990's.

Other indicators

Information regarding the distribution of needles/syringes through the Victorian Needle and Syringe Program (NSP) provides a crude indicator of the level of injecting drug use within the state. These data are summarised in Table 8.

Table 8. Victorian Needle Syringe Program distribution and return rates 1995-1999.

Year	Fixed outlets			Off-site			Total program		
	Dist.	Ret.	Ret. %	Dist.	Ret.	Ret. %	Dist.	Ret.	Ret. %
1995	1,616,462	681,877	42.2	493,038	380,309	77.1	2,109,500	1,062,186	50.4
1996	1,755,976	809,012	46.1	503,586	405,012	80.4	2,259,562	1,214,024	53.7
1997	2,344,686	1,058,686	45.2	630,006	504,439	80.1	2,974,692	1,563,125	52.5
1998	3,319,823	1,409,921	42.5	944,772	613,715	65.0	4,264,595	2,023,636	47.5
1999	4,036,784	1,859,417	46.1	1,237,445	721,664	58.3	5,274,229	2,581,081	48.9

Source: Victorian Needle & Syringe Program, Department of Human Services

1999 figures continue to show a steady increase in the number of needle/syringes distributed in the program throughout the 1990s, with a 24% increase in needle/syringe distribution from 1998 to 1999, compared to 43% increase over the previous year. In 1999, there were 424,399 visits where needle/syringe collections were recorded (71% male, 25% female). Just over half of the visits were from people aged between 21 to 30 years (53%), while 20% of visits were from people less than 21 years. Further indications of needle/syringe distribution in Victoria are available from records of pharmacy sales of needles/syringes in this jurisdiction. The 1995 Annual Report of the Needle and Syringe Exchange Program (Victorian Department of Human Services, undated) reported that of 1195 pharmacies responding to the survey (98% response rate), 73% sold needles/syringes.

The most recent survey of pharmacy sales has revealed that in 1999 1,121,269 needles/syringes (in addition to the 4,036,784 distributed through NSP's in that year) were ordered by pharmacies for sale across Victoria. It is difficult to determine what proportion of these needles/syringes are actually purchased by IDU's (compared to those purchased by people with diabetes or other conditions requiring self injection), however these figures at least demonstrate that significant quantities of injecting equipment are being made available through outlets other than NSP's. Research has demonstrated that for some people who inject drugs their preference is to access injecting equipment through pharmacies in order to avoid identification or police contact (Lenton, Kerry & Loxley et al., 2000).

Additional NSP related indicators of injecting drug use are available from the Australian NSP Survey conducted annually through the National Centre in HIV Epidemiology and Clinical Research (2000). In addition to the NCHECR finger-prick blood samples and self-reported risk behaviour information (refer to section 4.3.4 of this report), the 1999 national survey of NSP clients collected self-report information regarding the last drug injected by clients. Consistent with findings from the Victorian 2000 IDU sample, 87% of the 214 NSP clients recruited from 3 NSP sites in Victoria reported that they had last injected heroin, while seven percent identified amphetamines. Only one person reported that they last injected methadone, and two people reported morphine.

Current patterns of heroin use

The majority (80%) of participants of the IDU survey reported that heroin was their main drug of choice. A total of 95% of the sample reported having injected the drug in the preceding six months, with respondents reporting using the drug on a median of 176 days in this period

(approximately 7 times per week) – representing an increase on the median of 160 days reported in 1999.

This frequency of heroin use was consistent with the reports of the key informants in relation to the individuals with whom they have contact. Key informant reports regarding the amount of heroin used were variable and dependent upon a number of factors including availability of money, route of administration and length of time using heroin. Eight key informants estimated that the regular heroin users with whom they were in contact consumed 1-2 caps per day (at a cost of \$50 each), two believed that regular heroin users would consume one quarter of a gram per day (\$100-\$150) and a further two believed this figure was closer to half a gram per day (\$150-\$200).

The demographic profile of heroin users described by the key informants (n=16) was similar to that of the IDU sample in regard to age (majority 20 to 25 years, ranging from 10-60 years of age), gender (predominantly male 60%), ethnicity (mostly from English speaking backgrounds), level of education (average Year 10 completed) and employment status (low employment levels). With regard to gender, key informants tended to estimate a greater proportion of females using heroin than in previous IDRS studies and three key informants believed that there were approximately equal numbers of males and females actually using heroin.

Trends in heroin use

IDU survey participants whose drug of choice was heroin (80%) were asked to provide additional reports on trends relating to the number and type of people using heroin, the frequency and quantity of heroin use, or new types of drugs being used by friends. Of the 79% (n=93) of this group who were able to identify changes regarding the types/number of people using heroin, the major themes reported were: increasing numbers and a broader spectrum of people using heroin (94%); more younger people (46%); and more people in suits (9%). Half (49%) of this group also indicated that they had noticed changes in relation to the frequency and quantity of heroin use. The main changes reported included more frequent use (72%), and use of larger quantities (19%).

Less than one in five (17%) people for whom heroin was the drug of choice were able to provide reports on changes regarding the types of drugs their friends had been using. No discernable trend was obvious in the reports obtained from this group.

Key informants reported that there had been few changes in heroin use over the past twelve months other than the changes in quantities being sold. Two key informants had observed a decrease in heroin 'burning'/smoking among people of South East Asian backgrounds. The general consensus however was that most people injected heroin and that even among younger users who may commence smoking heroin, the transition to injecting occurred quickly once tolerance increased.

One key informant identified an increase in smoking heroin among student populations who chose not to inject, as they did not wish to be perceived as "junkies". In contrast to previous surveys and IDU reports, 2000 IDRS key informant reports suggested that heroin was not an acceptable drug among a broader range of social groups (eg. young people in the dance party scene, middle-class professionals). This was further confirmed by key informants reports on ecstasy and cannabis users.

Key informant reports on changes in the demography of heroin users were mixed. Four key informants had observed no changes, while a further two key informants reported that there had been only minor changes resulting from temporary displacement of heroin markets as a consequence of police activity. Eight key informants reported that there were more people using heroin and seven reported that users were younger, and that they were using greater quantities (n=2). Two key informants noted a large increase in the number of users engaging in sex work to pay for their heroin and one key informant commented on a large new group of users in their 40s.

Almost all key informants (n=16) reported on street-based heroin markets with three key informants also providing limited reports on 'home-based' markets. One key informant reported that more police activity has led to less street dealing and more home-based dealing. Home-based markets tended to be favored by older heroin users. The observation in 1998 and 1999 of little difference between street and home-based markets in terms of price or purity held for 2000. In comparison to 1998 and 1999, key informants provided fewer reports on home-based heroin markets.

In the 1999 study, street markets were reported to be operating in the Melbourne Central Business District (CBD), St Kilda, Fitzroy/Collingwood, Footscray, Springvale/Dandenong, Frankston and Box Hill. In addition to these markets a number of key informants also mentioned that emerging market in Richmond that was noted in 1999 had consolidated. Key informants noted that although these sites were frequently displaced as a consequence of

police activity, they would simply shift to adjoining streets or suburbs. Two key informants commented that heroin users were talking about a broader range of street-based locations from which they purchased heroin.

A further feature of the street-based heroin markets remarked upon by key informants was the overt nature of heroin trading activities in some areas, with very public and obvious exchanges of money and heroin packages. Seven key informants commented that the bulk of street-based heroin dealing was ‘on-selling’ by users to finance their own habits. A number of key informants noted that the distinction commonly drawn between heroin ‘users’ and ‘dealers’ is often false. According to key informants, the price and purity of heroin was consistent across different street-based heroin markets. The main difference reported related to a shift in the availability of heroin ‘caps’ sold on the street, whereby ‘rocks’ (or \$50 deals) have become the most commonly purchased quantity.

3.3.5 Summary of heroin trends

Table 9 contains a summary of trends in the price, purity, availability and the use of heroin as ascertained in the 2000 IDRS study conducted in Melbourne. Heroin continues to be readily available in Melbourne and the level of purity of the drug remains relatively high, however data from purity tests on select police seizures shows a reduction in purity levels compared to 1998/99. The price of gram amounts has remained stable at \$300 from 1999 to 2000, while the reported average ‘cap’ price of \$50 reflected a shift in the availability of \$20-\$25 deals in 2000 rather than a price increase.

Table 9. Summary of heroin price, availability, purity and use trends in Melbourne 2000.

Price (mode)	
Cap	• \$ 50 (smaller deals ¹ less available on street)
Gram	• \$ 300 (stable)
Availability	• Readily available during last 6 months
Purity	• 54% • Decrease since 1998/99
Use	• Mostly rock form • Broader spectrum of users (‘suits and students’) • Increase in frequency and amount of heroin use by individuals injecting the drug • Increase in numbers of dependent heroin users • Larger deals being sold in street markets • Continued trend towards more young heroin users • Proportion of users smoking heroin (1 in 5) • Continuing operation of street-based heroin markets

¹ \$20-\$25 cap, rock or deal

Since 1997 the IDRS study has provided evidence of the continuing expansion of street-based heroin markets in Victoria. The increasingly available supply of heroin in Melbourne has been accompanied by falling prices and generally increasing purity of street deals. However, the observed decrease in purity levels from 1999 to 2000, together with a lack of availability of \$20-\$25 deals may signal that the Melbourne market is undergoing change. These features of the heroin market in Melbourne should be monitored.

The available evidence suggests that the use of heroin is occurring within a broader spectrum of Victorians, with an apparent increase in the numbers of younger people using this drug. The findings of the current study also suggest an increase in the amount of heroin consumed by heroin users. This may be in part attributed to the reduction in price that has occurred over the past few years.

3.4 Amphetamine use in Melbourne

Forty nine percent of IDU survey respondents were able to comment confidently on the price, purity and availability of amphetamines. Four key informants were available to comment on amphetamine users as well as one key informant from the Victoria Police Drug Squad. Where appropriate, reports on amphetamine have been supplemented by reports from key informants.

3.4.1 Price

The median price reported by individuals who participated in the IDU survey was \$50 per gram (n=51) and \$800 per ounce (n=4), with most IDU (77%) reporting that the price had been stable in the preceding six months. A further 11% indicated that amphetamine prices had increased in this time. Respondents reported that amphetamine prices ranged between \$35 and \$80. Additional reports were received from IDU's for purer quantities of amphetamines. Seventeen participants provided price reports for pure 0.1gram amounts (Mode \$50). A number of participants (n=18) also reported on prices for pure grams (Mode \$200). Fewer reports were received for the prices of pure 1/8grams (\$50, n=1), pure 0.3grams (\$100, n=1), pure 0.55grams (\$150, n=1), pure 1/4ounces (\$1050, n=2), and pure ounces (\$3000, n=1).

Key informant reports were consistent with these findings. Two key informants reported that amphetamines were also being sold in a purer form called 'points', where deal sizes were much smaller. Table 10 summarises the modal price of amphetamine reported by the injecting drug users who participated in the 1997, 1998 1999 and 2000 IDRS studies. The comparison shows that the price per gram has remained stable across the three years while the price per ounce appears to have fluctuated. It is difficult to interpret the fluctuations observed in ounce amounts of speed due to the consistently small numbers of reports received each year.

Table 10. Modal prices of amphetamines in Melbourne reported by IDU survey sample 1997-2000.

		1997	1998	1999	2000
Amphetamine	\$/gram	50	50	50	50
	\$/ounce	-	820	750	800

3.4.2 Availability

The perceptions of IDU participants regarding the availability of amphetamines were mixed. Most respondents reported that the drug was easy (39%) or very easy (18%) to obtain, whereas 41% indicated that it was difficult to obtain the drug. Most of the respondents indicated that the availability had not changed (65%) or had become more difficult (18%) in the preceding six months, while 12% reported that it had become easier to obtain it during that time. For those who had used amphetamines in the previous six months, the drug was most commonly obtained from a friend (36%), dealer's home (36%), or mobile dealer (19%). Only 4% (n=3) reported a street dealer as their main source of the drug. Two key informants reported that the drug was easy to obtain providing an individual had the appropriate contacts. Three other key informants commented that amphetamine availability was stable, whilst two reported that availability had increased recently

3.4.3 Form and purity

Eleven per cent of the participants in the IDU survey reported swallowing amphetamines in the preceding six months and 50% reported having injected the drug in this period (compared to 40% in 1999). Those who had used the drug reported a median of six days of use in the last six months (or once per month). Powder form amphetamines were used in the last six months by 49% of participants, and five percent (n=8) reported having used liquid form. A further five percent of respondents had used prescription amphetamines in this time.

Increases from 1999 to 2000 were also noted in relation to lifetime amphetamine smoking (10% to 15%), amphetamine smoking during last six months (1% to 4%), lifetime snorting (62% to 70%), snorting during last six months (10% to 20%). Fifty-three percent of 2000 IDU participants reported having used amphetamines in the last six months compared to 40% of the 1999 sample.

Nine percent (n=14) of respondents reported the use of 'ice' or 'shabu' (smokeable crystals) in the preceding six months. This small group also provided price reports for this substance that were consistent with evidence from other sources. This drug appears as a transparent rock-like crystal (Australian Bureau of Criminal Intelligence, 1999). It is yet another form of methamphetamine (methamphetamine hydrochloride) that has been turned into freebase enabling it to be smoked (ie. by heating the drug and inhaling the vapors). This may explain the apparent increase noted in the proportion of IDU's reporting having ever smoked amphetamines. In contrast to 1999, no key informants indicated that amphetamine users were

reporting the use of this substance, however reports were obtained from a number of participants of the feedback seminar.

The majority of IDU survey respondents regarded the purity of amphetamines as medium (24%) to high (47%), while 28% reported that it was low. Most of those able to comment believed that the purity had either been stable (40%) or increased (21%) over the past six months. Others reported that purity had decreased (14%) or fluctuated (18%) in this time. Key informant reports on the purity of amphetamines varied, with two reporting the purity had decreased, two reporting the purity was stable and one key informant reporting that amphetamine purity had decreased. All key informants reported that amphetamine purity had remained low apart from one who was reporting on a group of long term, relatively wealthy users who access to better sources.

The mean purity of amphetamine and methamphetamine seized by law enforcement agencies in Victoria during the 1999/00 financial year is shown in Figure 3. Australian Federal Police (AFP) amphetamine seizures were not included in this figure due to the small number of seizures reported for the January to March quarter of 2000 (n=4). The average purity level recorded for these seizures was 44% with a smaller range (37% to 48%) compared to state police seizures.

The mean purity of all seizures of methamphetamine analysed (n=755) in Victoria during this period (including 16 AFP seizures) was 15% (range less than 1 to 86%). As shown in Figure 3, the purity of methamphetamine seizures was consistently low during the year (around 10%), with a sudden upswing apparent during the second half of the 1999/00 financial year. A total of 83 methamphetamine seizures were tested for purity during the April – June quarter, revealing an average purity level of 31% (range <1 to 85%).

In contrast to IDRS 1999 figures, amphetamine seizures (n=13) were of a similar purity level to that of methamphetamine, with an increase to 60% in the final quarter (n=2). The mean purity of all amphetamine seizures was 12% (range 2 to 60%). Due to the small number of seizures tested (n=13) and the substantial variation in recorded purity levels, it is difficult to determine how representative/indicative these figures are of amphetamine purity generally.

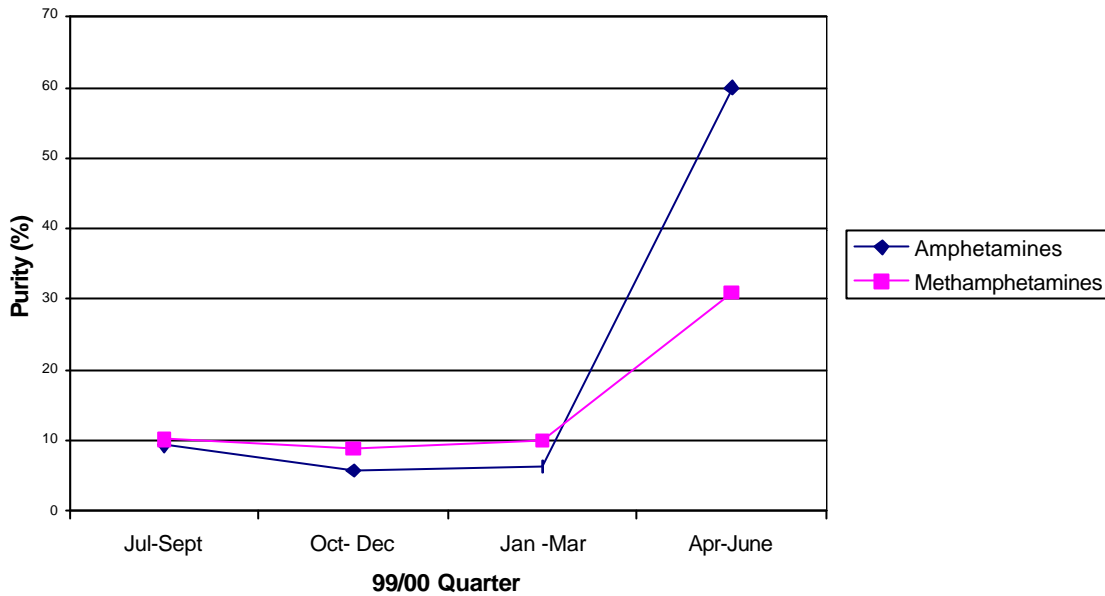


Figure 3. Purity of amphetamine and methamphetamine seizures by Victorian law enforcement in each quarter of 99/00 (Australian Bureau of Criminal Intelligence).

The mean purity of methamphetamine seized in Victoria during the period 1995/96 to 1999/00 is summarised in Table 11. This data suggests that overall the average level of purity of methamphetamine seized and tested in Victoria has been stable over the period from 1997/98 to 1998/99 and increased slightly in 1999/00.

Table 11. Mean purity level of methamphetamine seizures in Victoria 95/96 to 99/00.

	1995/96 %	1996/97 %	1997/98 %	1998/99 %	1999/00 %
Methamphetamine	5-32 (quarterly figures)	5	11	11	15

Source: Australian Bureau of Criminal Intelligence

Closer inspection of these data shows that the average purity of Victorian state police methamphetamine seizures (n=739) was consistently higher during the 1999/00 financial year for quantities less than two grams (18.6%) compared to that of more than two grams (11.6%).

3.4.4 Patterns of amphetamine use

Prevalence of amphetamine use

The most recent survey of amphetamine use within the general community of Victoria was undertaken within the 1998 National Drug Strategy Household Survey. According to the findings of this survey, 3% of the Victorian population aged 14 years and above had used amphetamines within the past twelve months (Australian Institute of Health and Welfare, 1999). This compares to 2% in each of the previous years of the 1995 Victorian Drug Household Survey in 1991, 1993 and 1995 (Drug Treatment Services, 1996).

The reported prevalence of amphetamine use derived from the Victorian School Students & Drug use Survey showed that 4% to 7% of respondents reported lifetime use of amphetamines between years 7 to 12, with more males reporting use and a peak in years 10 and 11 (Victorian Department of Human Services, in press-b).

Current patterns of amphetamine use / trends in use

The majority (90%) of IDU survey respondents reported lifetime use of amphetamines, however only 5% nominated the drug as their drug of choice. Those who had used the drug in the preceding six months reported a median of only six days of use in this period (once per month). This is consistent with reports from 21 key informants indicating that the people with whom they were in contact occasionally used amphetamines. One key informant had noted an increase in heroin use among primary amphetamine users at a time when amphetamine availability had temporarily decreased.

Another key informant in contact with a group of gay males who regularly used amphetamines reported that these people used the drug in a situational, event-based manner, often in conjunction with ecstasy, primarily by snorting. This group was said to be aged in their twenties, with high levels of education and predominantly of English-speaking backgrounds. Key informants reported that poly-drug use was common, including heroin, benzodiazepines, ecstasy and cannabis, however most drug use was recreational in nature. Amphetamine use was characterised as sporadic and binge-like in nature. The key informants reported that, in contrast to the street-based heroin markets, amphetamine buyers were more likely to be in social relationships with their dealers, and that dealers were often users themselves. This concurs with reports from more than a third of IDU survey participants (36%) that they most commonly purchase amphetamines through friends.

3.4.5 Summary of amphetamine trends

Trends in amphetamine price, availability, purity and use are summarised in Table 12. The reported price, purity and availability of amphetamines have remained stable across the four years of the Victorian IDRS. Findings from the 2000 IDRS study suggest that the prevalence of amphetamine use among injecting drug users in Melbourne is low, and that the drug is predominantly sourced through social networks and home-based dealers (rather than on the street). The apparent low prevalence of amphetamine use in Melbourne has previously been interpreted as due to the typically low purity of the drug in this jurisdiction. While low purity levels of law enforcement methamphetamine seizures have remained relatively stable during the past four years of the study, reports were received this year on the availability of ‘pure’ amphetamines in Melbourne. A significant number of respondents indicated that they had purchased pure 0.1gm amounts of amphetamines (costing \$50) and pure gram amounts (costing \$200) during the first six months of 2000. Some reports suggest that methylamphetamine hydrochloride (‘ice’, ‘shabu’) is emerging within the injecting drug scene in Melbourne on a recreational basis. Further in-depth investigation of this trend is warranted.

Table 12. Summary of amphetamine price, availability, purity and use trends in Melbourne 2000.

Price (mode)	
Gram	• \$50 (stable)
Ounce	• \$800 (fluctuating)
pure 0.1gm	• \$50
pure gram	• \$200
Availability	<ul style="list-style-type: none"> • Readily available in last 6 months for connected • Mainly accessed through social networks or home-based dealers • Significant reports on availability of purer amphetamines (smaller more expensive deals or ‘points’)
Purity	• 15% methamphetamine seizures (slight increase)
Use	<ul style="list-style-type: none"> • Level of use stable and low • Apparent increase from 1999 to 2000 in prevalence of IDU use in last 6 months • Mainly recreational/occasional • Drug of choice for only small proportion of IDU sample • Small proportion reporting the use of ‘ice’ (methylamphetamine hydrochloride)

The authors intend to explore the feasibility of targeting groups other than NSP clients for the purposes of identifying and monitoring amphetamine type stimulant (ATS) trends in Melbourne. The majority of IDU’s recruited from NSP’s for the IDRS study are typically

primary heroin users. This group are frequently either ex-amphetamine users or would use this drug only occasionally, and are therefore less able to provide reliable reports regarding current amphetamine market trends across Melbourne.

Further, key informant reports obtained in this study have consistently suggested that there may be a stronger connection between methamphetamine use and recreational drug users and/or the burgeoning dance/rave scene in this jurisdiction.

The authors note that a specific 'designer drugs module' was trialed with good results in NSW, QLD and SA as part of the 2000 IDRS study. By targeting a different sentinel group (ie. illicit drug users other than NSP clients), this pilot study was able to obtain more reliable information regarding ATS markets, patterns of use and related health harms in those jurisdictions.

3.5 Cocaine use in Melbourne

A small proportion of IDU survey respondents (9%) were able to comment confidently on the price, purity and availability of cocaine. Three key informants were able to confidently report on trends in cocaine availability, price, purity and patterns of use.

3.5.1 Price

For the few respondents (n=9) in the IDU survey who were able to comment on price, the median price given for a gram was \$250. The median price reported for a ‘cap’ of cocaine was \$80, however only three reports were obtained and these varied considerably (ie. \$50, \$80, \$250). Ten (71%) of the 14 participants who were knowledgeable about cocaine reported that prices had remained stable in the past six months. Fewer respondents reported that cocaine prices had increase (n=1) or decreased (n=2) in this time. Key informant price reports for cocaine were similar to those provided by the IDU respondents. One key informant in contact with a group of cocaine users reported that cocaine had become more available in the club scene and that indications were that the market was “about to be flooded”.

In general, the lack of reliable reports on the price of cocaine ‘caps’ (small amounts) suggests that the use of this drug is uncommon amongst IDU’s, and that the drug is not readily available in small quantities within Melbourne’s street-based drug markets. Indeed, thirteen key informants reported that cocaine was too expensive for the IDU’s they were in contact with. Table 13 summarises the modal price of cocaine in Melbourne reported by the injecting drug users who participated in the 1997, 1998, 1999 and 2000 IDRS studies. These data suggest that there has been some fluctuation in the price of cocaine in Melbourne, however it is not possible to identify clear trends due to the consistently small number of price reports obtained in each of the IDU surveys during this time period.

Table 13. Modal prices of cocaine in Melbourne reported by IDU survey respondents 1997-2000.

		1997	1998	1999	2000
Cocaine	\$/cap	-----	-----	65 ¹	80 ²
	\$/gram	300	200	250	250

¹ n=1

² n=3 (range \$50-\$250)

3.5.2 Availability

The majority of the respondents who were able to comment on the availability of cocaine reported that it was difficult to very difficult (64%, n=9) to obtain, and that this had remained stable (79%) over the past six months. Only four people reported that it was easy to obtain. Two key informants reported that although in general cocaine was difficult to obtain, it was relatively easy for those who established and maintained appropriate contacts. Of the 14 IDU respondents who were knowledgeable about cocaine, their usual source of cocaine was friends (n=4), mobile dealers (n=4) or dealer's homes (n=3). One key informant reported that cocaine was becoming increasingly available in the club scene.

3.5.3 Form and purity

Fourteen percent (n=21) of those who participated in the IDU survey reported having used cocaine in powder form in the past six months. Only three respondents reported using "crack" (a smokeable form of cocaine) in the preceding six months. The predominant route of administration for recent cocaine use (last six months) was snorting (8%). More IDU survey participants reported recent cocaine injection (6%, n=9) in 2000 compared to 3% (n=3) of 1999 participants. However, numbers are too small to be meaningfully interpreted.

Reported lifetime cocaine use was higher in 2000 (51%) compared to 1999 (46%), as was lifetime injection of cocaine (36% versus 29%), and any use within the last six months (53% versus 40%). Frequency of use was very low for this time period (Median 2.5 days), suggesting non-dependent, sporadic use patterns.

Nine (64%) of the 14 respondents who were knowledgeable about cocaine purity reported that the current purity was medium to high. Others (n=2) reported that purity was low. Eight people (57%) reported that the levels of cocaine purity they had reported had been stable during the last six months.

The mean purity level of cocaine seizures analysed by law enforcement agencies in Victoria and AFP during the 1999/00 financial year is shown in Figure 4. Purity levels of cocaine seizures fluctuated throughout the year, with a substantial difference between the purity levels of large (>2gms) and small (<2gms) amounts reported for seizures tested in the second half of the 1999/00 financial year. Figure 4 also shows that AFP seizures of two grams or less were consistently higher in tested purity than similar amounts tested by Victorian state police.

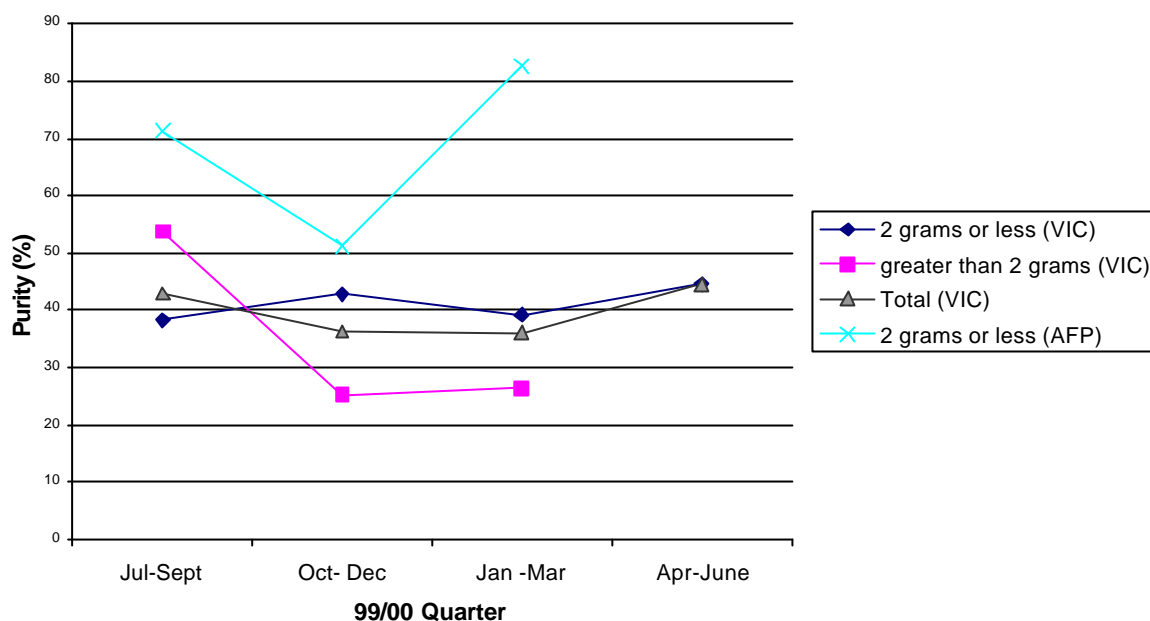


Figure 4. Purity of cocaine seizures by Victorian and AFP law enforcement in each quarter of 99/00 (Australian Bureau of Criminal Intelligence).

The mean purity of all seizures analysed (n=93) during this period was 53% (range <1 to 96%). The purity levels of cocaine seized in Victoria during the period 1995/96-1999/00 are summarised in Table 14. This data suggests a level of fluctuation in the purity of cocaine being sold in Melbourne over the period, with little difference apparent between 1997/98 and 1999/00. Of the 93 cocaine seizures tested for purity during this time period, 21 were those seized by the AFP. Each of the 21 cases was for two grams or less, and the average purity recorded for these was 70% (range 25.5% to 80.7%).

Table 14. Mean purity level of cocaine seizures in Victoria for 95/96 to 99/00.

	1995/96 %	1996/97 %	1997/98 %	1998/99 %	1999/00 %
Cocaine	43 (n=3 cases only)	37	54	49	53

Source: Australian Bureau of Criminal Intelligence

3.5.4 Patterns of cocaine use

Prevalence of cocaine use

The most recent survey of cocaine use within the general community of Victoria was undertaken within the 1998 National Drug Strategy Household Survey. The findings of this survey suggest a low level of cocaine use within the Victorian community, with 1.3 % of the Victorian population aged 14 years and over reporting the use of the drug within the past twelve months (Australian Institute of Health and Welfare, 1999). This is somewhat higher than the estimate of 0.6% obtained in the 1995 Victorian Drug Household Survey (Drug Treatment Services, 1996).

The Victorian School Students & Drug Use Survey showed similarly low reported lifetime prevalence of cocaine use, ranging from between 2% to 4.5% of participants in years 7 to 12 (Victorian Department of Human Services, in press-b).

Current patterns of cocaine use / trends in cocaine use

Although half of the respondents in the IDU survey (51%) reported lifetime use of cocaine, only two people (1%) identified the drug as their main drug of choice. The majority of key informants indicated that cocaine use was not prevalent within their respective client groups.

Consistent with the 1999 study, cocaine was typically characterised as desirable but too expensive for the majority of primary heroin users in Melbourne. Both of the two key informants who had contact with a group of cocaine users reported that this group primarily snorted cocaine and used it largely on weekends. A further two key informants reported that cocaine was used occasionally by the client groups with whom they were in contact when they could afford it or when it was given to them.

The 2000 Melbourne arm of the IDRS study was able to access few key informants who could comment on cocaine (similar to 1999). This and the IDU survey findings suggest that the drug is still not readily available within IDU networks in Melbourne. This is an interesting finding when viewed against available evidence from Sydney which shows that cocaine injecting has become part of a common pattern of poly-drug use among many injecting drug users (McKetin et al, 1999a).

Key informants report that the lack of cocaine usage among Melbourne IDU's is likely to be due to the different drug markets in operation in each jurisdiction (limited connections between different markets), as well as the prohibitive cost of cocaine in Melbourne at present.

Despite the continuing lack of evidence of increasing use of cocaine amongst IDU's in Melbourne, the observed prevalence of use among this group in Sydney (McKetin et al, 2000) and the associated severity of health problems (Malcolm et al, 2000) prompted the Victorian Department of Human Services to fund the development of cocaine preparedness training programs for alcohol and drug workers (Clarke & Roeg, 2000). It is envisaged that continued conduct of the IDRS study will serve as a crucial early warning indicator of cocaine use amongst IDU's in Melbourne.

3.5.5 Summary of cocaine trends

Trends in cocaine price, availability, purity and use are summarised in Table 15. In general, the evidence obtained (or lack thereof) strongly suggests that cocaine use is infrequent amongst IDU's in Melbourne. The most likely explanation for this is high prices and lack of availability in street-based drug markets that are most frequently accessed by primary heroin users.

Table 15. Summary of cocaine price, availability, purity and use trends in Melbourne 2000.

Price (mode)	
Cap	• \$80* (unreliable)
Gram	• \$250 (stable)
Availability	<ul style="list-style-type: none"> • Difficult to obtain • Low levels of IDU use
Purity	• 53% (stable last 3 years)
Use	<ul style="list-style-type: none"> • Continuing low levels of use • Too expensive for most IDU • No evidence of street-based dealing

* n=3 (range \$50-\$250)

Reports from some key informants about increased availability and use of cocaine at Melbourne dance parties, clubs and raves are difficult to validate using the current IDRS methodology.

3.6 Cannabis use in Melbourne

Cannabis was the second most commonly used illicit drug by IDU survey respondents (94%). The majority (74%) were able to report on aspects of price, potency and availability. Twenty-two key informants reported some level of cannabis use within their client groups, and four key informants were able to report on cannabis trends.

3.6.1 Price

The median price reported by IDU survey participants for an ounce of cannabis was \$280, and \$20 for a gram. Price reports for cannabis ounces ranged between \$150 and \$400, however most prices reported were between \$250 to \$350 (n=29). A significant number of price reports were received for amounts of cannabis such as quarter ounces (Mode \$90, n=50) and half ounces (Mode \$150, n=11), whereas only two reports were received for pound quantities (\$3500). Most respondents reported that cannabis prices during the last six months had remained stable (64%), while 24% indicated that prices had fallen during this time. Key informants reported \$20 for a gram and \$250 for an ounce of cannabis. The majority of IDU and key informants reported that the price had not changed in the last six months.

Table 16 summarises the modal price of cannabis in Melbourne reported by the injecting drug users who participated in the 1997, 1998, 1999 and 2000 IDRS studies. This shows that the price per gram has been relatively stable over this period while the price per ounce trend is that of continued reduction.

Table 16. Modal prices of cannabis in Melbourne reported by IDU survey respondents 1997-2000.

		1997	1998	1999	2000
Cannabis	\$/gram	20-25	20-25	20	20
	\$/ounce	350	320	300	280

3.6.2 Availability

The overwhelming majority of the IDU sample who commented on trends reported that cannabis was easy or very easy to obtain (84%), and that the availability of cannabis had remained stable in the preceding six months (78%). Among this sample, cannabis was most

commonly obtained from a friend (42%) or dealers' home (34%) even by those primary heroin users who frequent street-based heroin markets. Small numbers of people reported that they grew their own supply (n=7), or obtained cannabis from friends free of charge (n=7). In support of these findings key informant reports also indicated that cannabis was very easy to obtain (n=4), that for the most part availability had remained stable in the last six months (n=4) and that cannabis was primarily obtained through private social/drug networks.

3.6.3 Form and potency

The main form of cannabis used in the past six months by those participating in the IDU survey (85%) was marijuana head (the flowering top sections of the plant), while 33% reported having used marijuana leaf, 29% hash (higher than that reported in the 1999 study) and 9% hash oil. Similarly, key informant reports suggested that the majority of cannabis users used marijuana head or leaf and that this was either grown outdoors or hydroponically. Key informants from the Victoria Police Drug Squad could not report on cannabis seizures. All key informants reported that the preferred method of cannabis use was smoking through "bongs" (ie. water pipes) rather than "joints" (ie. self-rolled cannabis cigarettes). The potency of cannabis was generally rated as medium (33%) to high (63%) by the IDU sample, with most respondents stating that the potency had remained stable (57%) or had been increasing (21%) over the previous six months. Thirteen percent of respondents reported that cannabis potency had fluctuated during this time.

Most key informants also reported that cannabis potency was medium to high and that there were no changes in potency over the preceding six-month period. Unfortunately, potency estimates cannot be compared against scientific analyses as at the present time in Victoria cannabis seizures are not routinely analysed by law enforcement agencies.

Hall and Swift (2000) have recently presented evidence to suggest that claims of a large increase in THC (tetrahydrocannabinol) potency of cannabis may be refuted. They suggest that the greater prevalence in use of more potent forms of cannabis (eg. heads), and earlier initiation of cannabis use may better explain the reportedly higher rates of cannabis-related morbidity among young adults and adolescents.

3.6.4 Patterns of cannabis use

Prevalence of cannabis use

A significant minority of the Victorian community report personal cannabis use. The prevalence of recent cannabis use (last 12 months) within the general community of Victoria appears to have changed little within the period 1991 (10% reported by the National Drug Household Survey) to 1995 (11% reported by the Victorian Drug Household Survey). However, the results of the 1998 survey show an apparent increase in the use of the drug (17.8%), and a similar increase is evident in the prevalence of reported lifetime cannabis use from 1991 (29%) to 1998 (35.3%). Recent analyses of data from the Australian School Students' Alcohol and Drugs Survey (Lynskey et al., 2000) suggest that there has been a general increase in the prevalence of cannabis use among Australian youth since the early 1990s.

Similarly, the 1999 Victorian Secondary School Students and Drug Use survey showed that reported lifetime cannabis use ranged from 5% (year 7) to 32% (year 12) amongst respondents (Victorian Department of Human Services, in press-b).

A consistent finding in these surveys is that the rate of cannabis use is higher among males than females and is highest among persons aged 14-24 years (Australian Institute of Health and Welfare, 1999; Drug Treatment Services, 1996).

Current patterns of cannabis use / trends in cannabis use

IDU survey respondents were frequent cannabis users, with a median of 90 days use during the last six months (3-4 times per week). Fourteen (78%) of the eighteen IDU survey participants (12% of total sample) who nominated cannabis as their drug of choice were able to provide additional reports regarding general trends they had observed in cannabis use. This entire group reported that they thought cannabis use had continued to increase, particularly amongst younger people. The frequency of cannabis use was thought to have increased also, and a small number of people (n=6) reported that more of their cannabis using friends had been using ecstasy and heroin recently

The cannabis users that key informants reported on were daily users although sporadic binge use was reported to be common among younger users, probably due to limited finances. The cannabis users with whom key informants were in contact were slightly more likely to be

male (52.5%), have an average age of between 16-18, an average education level of Year 10 and were predominantly unemployed. As was the case in the 1999 IDRS study, some of the 2000 key informants (n=3) noted that cannabis use was widespread throughout the community and that cannabis was becoming a more socially acceptable drug. Recent surveys have shown that community support for the legalisation of cannabis was increasing (Makkai and McAllister, 1998).

Cannabis users were commonly characterized by key informants as poly-drug users who would often also use benzodiazepines, alcohol and occasionally amphetamines and hallucinogens. Some key informants (n=2) also reported an increase in experimental heroin use among the young cannabis users with who they were in contact. One key informant also mentioned that they had become aware of an increase in the mixing of heroin with cannabis prior to smoking ('snow cones'). Two key informants were in contact with cannabis users as young as 12 years of age.

Two key informants reported that there was an apparent increase in self-reported psychotic episodes by cannabis users. Informants indicated that most of these reports were related to feelings of paranoia and a chronic lack of motivation.

3.6.5 Summary of cannabis trends

A summary of cannabis trends is shown in Table 17. The Melbourne cannabis market and patterns of use continue to be relatively stable with only a slight reduction in ounce prices from 1999. Reported cannabis availability, perceived potency and use frequency and quantity have remained unchanged between 1997 and 2000. Some reports were received to indicate that cannabis hash is being used more often by injecting drug users, and that the prevalence of use may have increased recently. Cannabis appears to be the most widely used illicit drug within Victoria, and is commonly used concurrently with a range of other illicit drugs by injecting drug users.

Table 17. Summary of cannabis price, availability, purity and use trends in Melbourne 2000.

Price (mode)	
Gram	• \$20 (stable)
Ounce	• \$280 (decreasing)
Availability	• Readily available in last 6 months
Potency^a	• Continuing between medium - high

Use	<ul style="list-style-type: none">• Level of use stable to increasing among younger users• Most widely used illicit drug• Apparent increase in prevalence of IDU hash use• Perceived as more socially acceptable• Accessed mostly through social networks or home-grown• Cannabis commonly used concurrently with other drugs
------------	--

^aBased on IDU and key informant estimates.

3.7 Other drug use in Melbourne

3.7.1 Other opiates

Half (50%) of the IDU's interviewed reported the use of other opiates in the preceding six months, compared to 33% in 1999. Of this group (n=76) the most common types used were *Panadeine forte*® (47%) (24% of total sample) and morphine (32%) (16% of total sample). The reported recent injection of opiates other than heroin increased in 2000 (24% in last 6 months) compared to 16% in 1999. Reported lifetime use of other opiates via oral routes of administration increased from 47% in 1999 to 56% in 2000, and recent (last 6 months) oral use rose from 28% in 1999 to 40% in 2000. Overall however, frequency of use during the last six months was low with participants reporting a median of 7.5 days (or slightly over once per month). Two key informants reported the use of other opiates such as morphine and one the use of codeine based pharmaceuticals (*Panadeine forte*® and *Endone*®).

Sixty-six percent of the 2000 sample reported lifetime use of methadone (compared to 59% of the 1999 sample). Similarly, the number of IDU's reporting lifetime injection of methadone increased from 9% in 1999 to 17% in 2000 (n=26). While the apparent increase in reported lifetime injection of methadone is concerning, it is difficult to interpret these findings without more information regarding the circumstances of this use (eg. state of residence, source of methadone, preparation methods, concurrent treatment). It is worth noting that only 3% of the 2000 IDU sample reported injection of methadone during the last six months prior to interview (compared to 1% of the 1999 sample). This is consistent with recent reports of low levels of methadone injection amongst Melbourne methadone clients, Lintzeris et al (1999).

Methadone syrup was used by 40% of respondents, and Physeptone tablets by 3% of respondents during the previous six months. For the 28 people currently engaged in methadone maintenance treatment, the median number of days they had used methadone in the last six months was 170.

3.7.2 Benzodiazepines

Most participants (74%) had used benzodiazepines in the last six months, with 36% reporting intra-venous (compared to 19% in 1999), and 71% oral routes of administration during this period. Of the group who had used benzodiazepines, the types most commonly used in the

preceding six months were diazepam (40%) (eg. *Valium*®, *Antenex*®, *Ducene*®), oxazepam (15%) (eg. *Serepax*®), and temazepam (12%) (eg. *Normison*®, *Temaze*®).

Of particular note is the significant proportion of participants who report the injection of benzodiazepines (49% ever, 36% in the past six months). These figures represent an increase on those reported for the 1999 IDRS study. The types of benzodiazepines most commonly injected by IDU survey respondents included temazepam (41%), diazepam (22%) and oxazepam (9%). Together, these types have represented around 84% of all subsidised Pharmaceutical Benefits Scheme benzodiazepine prescriptions in Victoria since 1995 (Victorian Department of Human Services, in press-a). Key informant reports also confirmed the reduction in the use of flunitrazepam (*Rohypnol*®) indicated in the IDU survey.

The use of flunitrazepam (ie. *Rohypnol*®) was less commonly reported (2%), and is consistent with the results of the 1998 and 1999 IDU surveys suggesting that the use of flunitrazepam by individuals who inject drugs has been reduced as a consequence of its rescheduling in 1998 as a Schedule 8 drug of addiction as per the Drugs, Poisons & Controlled Substances Act, 1981.

2000 key informants (n=11) also reported on the continuing trend of injection of benzodiazepines among heroin users, in particular *Normison*®. Key informants expressed concern at the continuing prevalence of benzodiazepine injection, and in particular the serious nature of problems associated with injecting *Normison*®, such as vein damage and increased likelihood of overdose. Two key informants had also noted that *Normison*® was now being exchanged for heroin by some dealers and stockpiled, due to a reported fear that temazepam (*Normison*®) may soon be withdrawn from sale.

Key informants (n=8) suggested that benzodiazepines were accessed through “doctor-shopping” and through black market street-level selling. Two key informants reported that temazepam (*Normison*®) was being swapped for heroin on the street. Informants further reported that benzodiazepines were used either as a substitute when heroin was unavailable, for the relief of substance related symptoms (eg. sleep disorders, withdrawal, anxiety), or to enhance or supplement the effects of heroin or other drugs (when unable to purchase their preferred amount). This was particularly identified by key informants (n=6) as being the case for temazepam (*Normison*®).

3.7.3 Anti-depressants

Over a quarter (27%) of IDU's reported that they had used anti-depressants during the preceding six months. Slightly less than half (41%) reported lifetime use. The median number of days of use for this group in the previous six months was 120 (or approximately 5 days out of a week), and was the fourth most frequently used substance by this group. While a wide variety of different types of anti-depressants were reported, the tricyclic antidepressant (TCA) varieties were used most by this group (50%), and included: doxepin (*Deptran*®), dothiepin (*Prothiaden*®), and amitriptyline (*Typtanol*®). A further thirty-eight percent of people who had used anti-depressants during the previous six months had been using serotonin specific re-uptake inhibitor (SSRIs) drugs including: setraline (*Zoloft*®), paroxetine (*Aropax*®) and flouxetine (*Prozac*®, *Lovan*®).¹ Two key informants reported the use of antidepressants among the populations with who they were in contact.

3.7.4 Ecstasy

A total of 24% of respondents reported ecstasy use within the last six months, and half (49%) had used it at least once in their lifetime (compared to 40% in 1999). Fifteen percent of IDU's interviewed reported that they had injected ecstasy before, and eight percent had done so within the six months prior to interview. The primary route of administration of ecstasy for this group was oral (47%) and a quarter (24%) had used ecstasy in this way during the last six months.

Participants of the 2000 IDU survey reported higher rates of ecstasy use compared to the 1999 sample. Lifetime use (49% versus 40%), lifetime injection (15% versus 12%), injection during last six months (8% versus 5%), lifetime oral use (47% versus 38%), oral use during last six months (24% versus 16%) and any use in the last six months (24% versus 18%) were all reported as higher.

Key informants did not perceive ecstasy use to be common among primary heroin users, although noted that many would have used these drugs at some stage in the past. Three key informants commented on ecstasy use (a user group representative, an ecstasy user, and one police officer). Ecstasy use was perceived as more prevalent among younger people who were involved in the dance party or "rave" scenes. The ecstasy users reported on by key informants were primarily weekend users. The ecstasy users with whom key informants were

¹ Contrary to these figures, a recent study by McManus and colleagues (2000) has reported an increase in SSRI prescriptions and a 25% drop in TCA's in Australia.

in contact were more likely to be male (60%), have an average age of 20, an average education level of tertiary to post-graduate qualifications and were predominantly in full time work or study. The three key informants noted that most ecstasy users experienced few problems associated with their drug use and did not really consider themselves as illicit drug users. This was reflected by key informant reports that none of the ecstasy users they had contact with were, or had been in treatment. Two key informants reported that there was an increase in the number of ecstasy users over the past six months and that these users were becoming younger. It was reported that the price and purity of ecstasy had decreased, that it was easy to obtain and had become easier. Key informants reported that one ecstasy tablet cost \$50 or \$300 for 10 tablets. Key informants reported that the purity of ecstasy remained low, however the advent of testing kits (EZ-test) had improved knowledge of what drug was being purchased. All key informants reported that whilst ecstasy use appeared to be on the increase, and the negative consequences of ecstasy use were becoming more apparent, this did not appear to be of major concern in comparison to heroin.

The average purity level of ecstasy seizures analysed by law enforcement agencies in Victoria during the 1999/00 financial year (n=85) was 33.8% (range 11.3% to 84.4%), which was consistent with those seizures (n=37) tested by AFP (average purity = 36.1, range <1% to 71.1%). These purity levels represent a slight increase compared to 1998/99 figures of 28% (n=60) (range 2% to 84%).

3.7.5 Other drugs

Small numbers of respondents had used either inhalants (5%) or steroids (1%) during the six months prior to survey. Sixteen percent of respondents reported having used LSD/trips in the previous six months, while 5% (n=7) reported having used hallucinogenic mushrooms within this period. Seventy percent of the sample reported lifetime use of hallucinogens, and 16% had injected this drug type at some time in the past. Reported frequency of use was low at a median of 2.5 times during the last six months. Six key informants reported on occasional “chroming” (ie. inhaling vapors or fumes) of butane gas and aerosol packs by early high-school aged groups. One ecstasy key informant also commented on the common use of Nitrous bulbs in the rave scene. Four of the key informants reported that this was an increasing trend. Three key informants reported the use of Ketamine within the party drug scene.

SPECIAL REPORT: Anabolic steroids and growth hormones

Whilst steroid use is not considered typical of 'illicit drug use', there has been increasing interest in steroid use in the community, particularly due to a number of drug controversies at the recent Sydney Olympics. One key informant reported on steroid use. This key informant was an outreach worker, specializing in steroid use, who reported contact with 21-50 users within the past week. Steroid users represent a very different IDU population to most others because the drugs used are generally not psychoactive and the people using them are usually doing so to improve their performance or appearance. The key informant identified two different major groups of steroid users; those who use steroids for primarily bodybuilding purposes and those who use steroids for generally improving their appearance. It was noted that the bodybuilding group seldom use other drugs, whereas the second group are more likely to be involved in the 'party' scene and use other drugs (such as ecstasy and amphetamines) on a recreational basis. The key informant reported that the average age of steroid users was 25 yrs old (range 16-60) and 65% male. Most of the steroid users that the key informant had contact with were employed full time with an average education level of year 12. None of the users in contact with the key informant were in any form of treatment. This key informant reported that there was an increase in the number of steroid users and that they were getting younger. Steroids and growth hormones had increased in price and decreased in purity over the past six months. In addition to this, whilst steroids were still easy to obtain, availability had decreased over the past six months. The key informant reported that steroids cost \$90-\$130 for 10ml or 20ml bottles and \$150-\$250 for 50ml. The price of growth hormones varies widely and can be very expensive (up to \$1000s per course). The key informant reported that 70% of steroids available are animal steroids. Whilst there are many different forms of steroid used, the more common varieties are: Deca (or Deca-durabolan), Stenazol, Sustanon 250, Tribanol 75 and Dynabol. In addition, the use of human growth hormone and insulin growth factor is common, but usually more expensive.

There are a number of significant side effects associated with steroid use that were identified by the key informant. The key informant reported that steroid users can become trapped in a vicious cycle of having the 'body fantastic' on drugs, but experiencing side effects as a problem and then when they stop the course of treatment, their body becomes softer and smaller and many will re-use at the risk of more side effects. The key informant reported that muscle dysmorphia is a problem for steroid users as opposed to Anorexia, whereby they display similar traits to people with eating disorders, just with the opposite desired effect.

Other problems identified by the key informant include: development of breast tissue ('bitch tits'), infertility, both increased and decreased libido, decrease in the size of the testicles, decreased sperm production which can lead to infertility or impotence (this may be permanent with prolonged use of these drugs), baldness, some increased levels of aggression, and increased blood pressure. A further problem identified by the key informant was the incorrect choice of needle size, whereby many users employ needles that are too large. The key informant believed that a lot of steroid users could use counseling.

Steroids are available in a number of forms including: oil based, water based, tablets and gels. Steroids and human growth hormones are taken in 'cycles' or 'courses' of treatment. The nature of these cycles depends on the type of drug being used. For example: oil based steroids (are injected every 4-5 days), water-based steroids (daily to every second day), Gel-based steroids (daily). Similarly, the quantity varies according to the individual's expectations and how much they can afford. The route of administration for steroids is usually intra muscular (IM) and growth hormones ('growth') are usually administered sub-cutaneously. The key informant noted that the risks of BBV transmission is very high within this group as many still share injecting equipment (such as: barrels, bottle, bladders) and there is a lot of blood-blood contact when injecting each other (even though it is usually administered IM. In addition to this, the key informant stated that the risk of BBV transmission is increased because there is a lack of knowledge surrounding BBV transmission within this group of injecting drug users.

3.7.5 Summary of other drug trends

The 2000 Melbourne IDRS study has yet again provided evidence of significant prescription drug use by injecting drug users (eg. panadeine forte®, morphine, benzodiazepines and anti-depressants). There is also substantial evidence of misuse of these drug types.

Of particular concern is the apparent increase identified in the prevalence of benzodiazepine injection (mostly *Normison*® capsules) amongst injecting drug users, and reports of the existence of a street-based black-market for benzodiazepines.

Further research is planned to investigate this issue in greater detail.

4.0 DRUG-RELATED ISSUES

4.1 IDU survey

4.1.1 Injection related health problems.

Injection related health problems reported by the participants in the IDU survey in the previous month are summarised in Table 18. Three quarters (75%) of respondents had experienced at least one type of these problems, with scarring/bruising (47%), and difficulty injecting (50%) being the most common problems reported. The median number of injection-related health problems was two.

Table 18. Injection-related health problems reported by participants in the IDU survey (N=152).

Type of problem	%
Prominent scarring/bruising	47
Difficulty injecting	50
Dirty hit (made me feel sick)	16
Thrombosis	8
Overdose	13
Abscesses/infections from injecting	15

4.1.2 Heroin-related overdose

Non-fatal heroin overdose is a common experience among the group of 2000 IDU respondents. Self-reported overdose experience data for the years 1997 to 2000 are summarised in Table 19. More than half (55%) of the 2000 respondents reported that they had experienced one or more heroin overdoses ever, 42% had been administered *Narcan*® (a fast-acting opioid antagonist given to reverse the effects of heroin in the case of an overdose), and most respondents (85%) had witnessed an overdose (median = 4).

The respondents who had previously experienced an overdose reported a median of seven months since they last overdosed, and a median of three overdoses in total. Those who had been administered *Narcan*® reported a median period of three months since they were last

administered the drug. Of those participants who had used heroin, over a quarter (27%) had experienced an overdose at least once within the previous six months and 20% had received *Narcan*® in that time.

Table 19. Reported experience of heroin overdose for IDU survey respondents 1997 to 2000.

	1997	1998	1999	2000
Heroin Overdose Experience				
Lifetime overdose	138 (56%)	148 (52%)	83 (54%)	83 (55%)
Lifetime receipt of <i>Narcan</i> ®	51 (37%)	99 (35%)	52 (34%)	64 (42%)
Overdose in last 6 months	42 (17%)	54 (19%)	37 (24%)	40 (27%)
Received <i>Narcan</i> ® in last 6 months	25 (10%)	37 (13%)	25 (16%)	29 (20%)
Have witnessed an overdose*	194 (76%)	229 (78%)	111 (72%)	128 (85%)

* Proportion of all respondents in 1997 (N=254), 1998 (N=293), 1999 (N=154), and 2000 (N=152)

Table 19 shows that reported lifetime experience of overdose by IDU respondents has remained stable between 1997 and 2000. However, reported recent experience of overdose (within last six months) has continued to increase from 1997 (17%) to 2000 (27%), as has receipt of *Narcan* (10% in 1997 to 20% in 2000). Similarly, more IDU survey respondents in 2000 reported having ever witnessed another person's overdose compared to respondents of each of the previous Melbourne IDRS studies.

Table 20. Drugs used on day prior to interview (IDU survey, N=152).

Type of drug	% ¹
Heroin	78
Cannabis	50
Benzodiazepines	25
Methadone	13
Alcohol	21
Other (eg. Anti-depressants)	3
Amphetamines	4
Opiates other than heroin	5

¹ Respondents were permitted to report more than one drug type

IDU survey respondents were asked about their drug use on the preceding day. Their responses are summarised in Table 20. The median number of drugs used was two with the most common drugs used being heroin (78%) and cannabis (50%). Further analyses revealed that 30% of the IDU sample had used heroin in conjunction with benzodiazepines and/or alcohol on the previous day.

Poly-drug use is major risk factor for overdose. In 82% of the 1999 cases of heroin-related deaths in Victoria (n=359), postmortem toxicology analyses revealed that the individuals had also used drugs such as alcohol (32%) or benzodiazepines (55%) prior to their death (Gerostamoulos, Staikos and Drummer, 2000).

4.1.3 Injection equipment sharing

The sharing of needles/syringes and other equipment associated with the preparation and injection of drugs carries significant risk of exposure to blood borne viruses such as HIV, and hepatitis B and C (HBV, HCV) (Crofts, Aitken & Kaldor, 1999)

More than a third (35%) of the respondents reported lending a used needle to someone else in the past month, and 19% reported borrowing and using someone else’s used needle. With respect to borrowing another person’s used needle, 25 of the 28 participants (90%) who reported doing this in the last month indicated that the borrowed needle had been used by only one other person (usually a sexual partner or close friend). For those people who had loaned their own used needles to other people during the last month (n=53), most of this group (68%) had done so more than twice in that time. The 2000 findings suggest an increase in the level of needle sharing among the individuals who participated in the IDU survey compared to that observed in the 1999 survey (see Table 21).

Table 21. Reported IDU sample used needle/syringe borrowing/lending 1997-2000.

Risk practice	1997	1998	1999	2000
Borrowed a used N/S in past month	22	22	9	19
Lent a used N/S in past month	26	33	22	35

In comparison to the sharing of needle/syringes, respondents also reported generally higher rates of sharing of other types of injecting equipment. Slightly less than half (47%) reported using other injecting equipment after someone else in the past month, most commonly spoons

(46%), filters (18%), tourniquets (11%) and water (33%). These findings are of concern as it is possible that HCV transmission may occur through sharing of equipment other than needle/syringes (Crofts, Jolley, Kaldor et al., 1997).

4.1.4 Criminal activity

Forty-seven percent of participants reported involvement in some type of criminal activity in the preceding month, while 64% reported that they had been arrested in the previous twelve months. Among those arrested in the previous twelve months (n=96), 58% of arrests were in relation to property crime, 24% were in relation to use or possession of heroin and 15% related to fraud. Twenty-six percent of this group reported multiple (two or more) types of charges (mostly combinations of property crime and use/possession charges).

As shown in Table 22, dealing (34%) and property crime (20%) were the most common crimes reported, with relatively few respondents reporting involvement in violent crime (5%) or fraud (12%). These findings are similar to those observed in the 1999 IDU survey.

Table 22. Criminal activity reported by IDU in the last month (N=152).

Type of Crime	%
Property crime	20
Dealing	34
Fraud	12
Violent crime	5
Any Crime	47

4.1.5 Perception of police activity

Respondents were asked a number of questions regarding their perceptions of changes in police activity in the past six months and the impact of these changes. Most of the respondents (68%) believed that there had been an increase in police activity over this period, and a significant proportion (40%) reported that more of their friends had been arrested (58% reported that this was stable or normal).

Forty-two percent of the study participants reported that police activity had made it more difficult to acquire drugs recently. Further analyses revealed that interview site/suburb, drug

of choice, frequency of private versus public injecting, recent frequency of injecting, and location of scoring were not predictive of a person's likelihood of having experienced difficulty acquiring drugs. However, participants who were 25 years or younger were more likely to report that police activities made it difficult to score (59%) compared to participants older than 25 years (33%) ($\chi^2=9.66$, $df=1$, $p<0.01$).

Findings such as these suggest that older IDU's are less affected by police in their endeavors to purchase illicit drugs than younger less experienced users. This may be due to fact that older users are generally more experienced than their younger counterparts, or that police may target younger users more because they tend to be more visible as participants in street-based drug markets.

4.2 Key informant survey

4.2.1 Heroin-related issues

The key informants interviewed were able to report on a number of heroin-related issues. Key informants reported that rates of non-fatal heroin overdose remained high, and that the numbers of “borderline” overdoses (people who have had more than an effective or desired dose of heroin, but who have not slipped into unconsciousness) also increased from last year. Key informants suggested that reasons for the unacceptably high rates of both fatal and non-fatal overdoses might include the purity of available heroin, the use of benzodiazepines in conjunction with heroin and people using heroin after periods of abstinence or reduced use (eg. completion of heroin withdrawal programs, incarceration), which has the effect of reducing their tolerance for the drug.

As observed in the 1999 IDRS study, many key informants (n=14) also reported on the extent of venous damage among the people with whom they were in contact. This was attributed to increasing numbers of IDU injecting into inappropriate sites such as the neck or groin, and / or the injection of prescription drug preparations (eg. temazepam) not intended for intravenous use. Whilst some key informants (n=4) commented that their client populations were knowledgeable about the health risks associated with injection of benzodiazepines, others (n=5) reported a lack of knowledge regarding safe injecting techniques among the people with whom they had the most contact. As has been the case in each of the previous four years of the Melbourne IDRS, the prevalence of hepatitis C virus (HCV) infection among injecting drug users was identified as a significant concern.

Thirteen key informants reported an improvement in needle risk-taking behaviour. However, another seven key informants identified the sharing of equipment with partners and needle re-use as an on-going problem. The majority of key informants indicated that sharing of needle/syringes occurred rarely (except in desperate circumstances) but that spoons and filters were more frequently shared. Other key informants were concerned about sharing in high-risk situations such as detention facilities where clean equipment was often not available.

Eleven key informants commented upon the increasingly difficult social and economic circumstances faced by the drug users with whom they were in contact. The most common problems identified were long-term unemployment, poor nutrition and lack of contact with

social welfare services. In particular, five key informants reported that insecure accommodation and reduced access to accommodation was a major problem – an issue also raised in the 1999 study. Similarly, poor nutrition and lack of sleep (as a consequence of low incomes and inadequate accommodation) were identified as contributing to poor general health among the drug users with who they were in contact.

A number of key informants (n=8) reported that there were insufficient treatment places and treatment options available for heroin users and, in particular, that there was a lack of methadone prescribers available. Concern was also expressed regarding the long waiting lists for withdrawal services and therapeutic communities. As previously noted in the 1999 IDRS, some withdrawal services require heroin users to telephone them every day until a place becomes available and this was seen by key informants as unmanageable for the majority of their clients.

Criminal activities among heroin users were reported as consisting mostly of petty property crimes, such as shoplifting and burglary (n=12) and dealing/trafficking (n=13). Nine key informants reported some violent crime among their client populations, which was perceived as stable throughout the preceding twelve months. Key informants observed that crime between drug users continued to increase, including “standovers and rolling”, (eg. taking money or drugs using violence or the threat of violence (n=6)). Key informants noted that these activities were increasing and remain unreported.

Key informants reported that levels of police activity focused on heroin users had increased dramatically over the past six months, mostly due to the police operations Minder, Reform and Leader (Appendix A for dates and locations). Police activity was characterised as a combination of uniformed police presence on the streets and undercover operations. As with reports from 1998 and 1999 IDRS, key informants believed that police operations or “blitzes” served mainly to shift or disperse heroin markets to other areas. A number of key informants (n=6) reported that increased police activity might have the effect of increasing the risks of overdose and blood borne virus transmission. This may be because heroin users will tend to inject more hurriedly, and in more hidden locations as well as using their entire heroin in the one injection to minimise the possibility of police attention. Key informants also commented that the fear of discovery may lead to unsafe disposal of used injection equipment.

Some of the key informants reported that there had been increased surveillance and harassment of users surrounding service provider locations and outreach workers (n=4), that

they intimidated and harassed young people on the streets (n=6), that there had been an increase in public strip searches of young people (n=2) and that police violence towards drug users had increased (n=7). It was also noted that drug users were usually reluctant to initiate formal complaints about such behaviours. Most key informants indicated that these activities varied depending on the police officers involved and there was a perceived need for community policing to counter these activities and greater communication and cooperation between service providers and the police. Key informants recognised that the police occupied a difficult position in relation to the drug problem, facing significant community and media pressure.

Key informants reported that public pressure on the police appeared to have increased since the commencement of public debate surrounding supervised injecting facilities. In addition, key informants noted that the role of the police is made more difficult because of the often-present conflicts between health concerns and law enforcement requirements.

4.2.2 Amphetamine-related issues

Amphetamine use by regular amphetamine injectors was characterised as binge use resulting in health problems due to lack of food and sleep and psychological distress (eg. anxiety, depression, psychosis). A number of key informants suggested that the 'rave' scene was now seeing an increase in amphetamine use, usually non-injecting, and in conjunction with ecstasy. In contrast to the 1999 IDRS, key informant reports did not suggest a shift away from amphetamine use toward heroin use among the drug users with whom they had contact. Similarly, this trend did not appear to hold for more affluent and longer-term amphetamine using groups.

4.2.3 Cannabis-related issues

Reports by key informants who had contact with treatment seeking cannabis users suggested that a changing trend in cannabis-related problems was an increase in the number of cannabis users self presenting with more psychological disturbances (eg. increased incidence of paranoia and motivational problems). Others emphasised that an inability to meet responsibilities was an important issue faced by the cannabis users with whom they had contact. Two key informants reported that many of the cannabis users presented with depression. One key informant estimated that approximately 30-40% of his clients were taking prescribed anti-depressant medication at the time. Some key informants reported an

increase in numbers of cannabis users presenting to services. However, one key informant reported that these increases could be explained through the advent of cannabis diversion programs in the courts, as well as the specific targeting and marketing of cannabis-related services.

4.3 Other indicators

There is a range of data sources that are useful secondary indicators of illicit drug use and related health and other harms. Data from select indicator sources are presented in this section, including: specialist drug treatment service utilisation; ambulance attendances at non-fatal heroin-related overdose episodes; heroin-related fatalities; BBV transmission; and drug-related arrests.

Readers are referred to the Victorian Drug Statistics Handbook (Victorian Department of Human Services, in press-a) for a comprehensive discussion of available sources of Victorian illicit drug indicator data.

4.3.1 Specialist drug treatment presentations

Alcohol and Drug Information System (ADIS)

In the 1998/99 financial year, 19217 cases on the Alcohol and Drug Information System (ADIS) database represented clients receiving treatment episodes (n=32,983) from Victorian Government funded specialist drug and alcohol agencies. Client numbers using other forms of treatment such as private practitioners are not included in this database.

ADIS data for the 1998/99 financial year show that a third of the Victorian clients presented with primarily alcohol related problems (33%). A further third of clients presented with primarily opioid related problems, though this group accounted for 40% of the total treatment episodes. Just under one in five clients (18%) presented with primary cannabis problems, and 8% (n=1541) of clients for other drug problems (eg. cocaine, ecstasy, hallucinogens, inhalants). Similar proportions of clients presented for primary tranquiliser problems (4%) or amphetamine problems (4%).

For most categories of main drug problem, the majority of individuals were male ranging from 64% of individuals receiving treatment for amphetamine, or heroin/opioid related problems to 69% of individuals receiving treatment for alcohol problems. In contrast, the gender split for the tranquiliser and other drug presentations appears to be more even.

Drugs and Poisons Unit (DPU) pharmacy census

Data from the Victorian Department of Human Services Drugs and Poisons Unit (DPU) database of all methadone permits in Victoria is shown in Figure 5. The DPU conducts a routine phone census of all pharmacies to monitor the numbers of clients who have been given methadone doses on a particular day. This demonstrates a relatively steady increase in clients on the methadone program from the mid-1990s to the present. The magnitude of the increase was 20% between 1997 and 1998 and 26% from 1998 to 1999. There has been a 13% increase in client numbers from the July 1999 census to the April 2000 census.

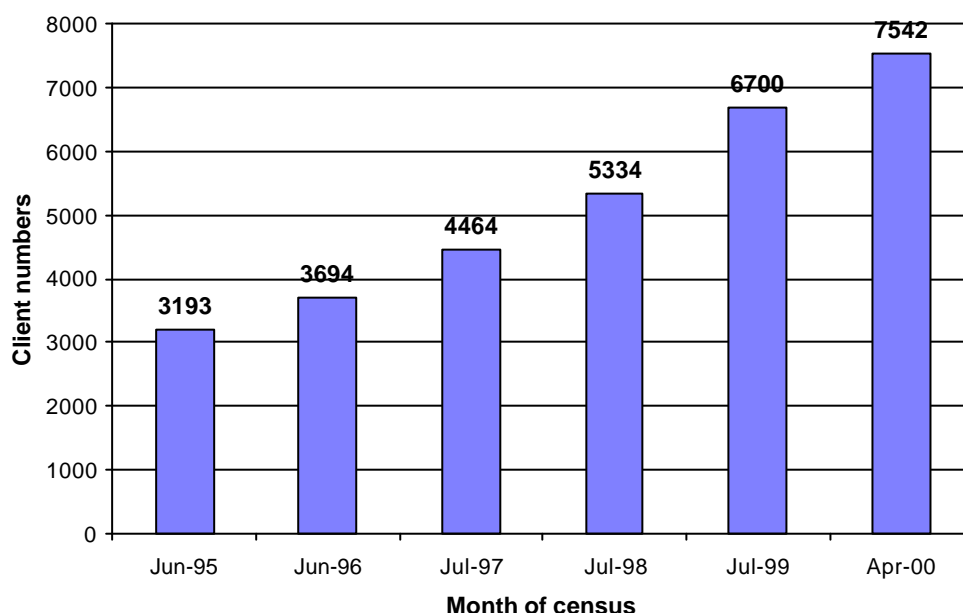


Figure 5. Census estimate of the number of Victorian methadone clients, June 1995 to April 2000 (Source: Victorian Department of Human Services).

Direct line calls

Direct Line call data for the period October 1999 to September 2000 shows that a total of 9000 calls were made by drug users, and that the most commonly identified illicit drugs of concern were heroin (29%) and cannabis (13%). Similarly, the most common illicit drugs of current use by callers were heroin (30%) and cannabis (13%).

Drug user callers to Direct Line were less likely to be currently using amphetamine type stimulants such as amphetamines (4%), cocaine (<1%) and ecstasy (2%), and were also less frequently concerned about these drugs (amphetamines 4%, cocaine <1%, ecstasy 2%).

Interestingly, eight percent (n=669) of drug user callers to Direct Line reported that they were currently using Benzodiazepines, and this drug class was identified as a drug of concern in seven percent (n=645) of calls between October 1999 and September 2000.

4.3.2 Ambulance attendances (non-fatal heroin-related overdose)

A database of Melbourne Metropolitan Ambulance Service (MAS) attendances at drug-related overdose episodes is maintained by Turning Point and contains reliable data from June 1998 onwards. Table 23 shows the monthly totals for non-fatal heroin overdose for the period July 1999 to June 2000.

Table 23. Monthly totals of non-fatal heroin overdoses in Melbourne, July 1999 to June 2000.

Month	Heroin Overdose		
	number	mean per day (std. deviation)	daily range
June 1999 ¹	-	-	-
July 1999	309	9.97 (4.34)	2-19
August 1999	293	9.45 (4.25)	3-19
September 1999	279	9.30 (4.13)	4-21
October 1999	306	9.87 (4.72)	2-21
November 1998	347	11.57 (4.28)	3-21
December 1999	461	14.87 (6.36)	7-34
January 2000	379	12.23 (5.03)	2-20
February 2000	386	13.31 (6.20)	4-28
March 2000	401	12.94 (5.18)	4-26
April 2000	318	10.60 (4.76)	2-20
May 2000	242	7.81 (3.92)	3-20
June 2000	271	9.03 (3.87)	1-20
Total	3992	10.91 (5.15)	1-34

¹ Source: Turning Point, Alcohol and Drug Centre (data not available for June 1999 due to industrial dispute)

Monthly non-fatal heroin overdoses attended by ambulances in Melbourne remained high during the period shown, with the peak period occurring from December 1999 (n=461) to March 2000 (n=401). This trend was similar to that reported in the 1999 IDRS report.

Table 24 presents a summary of the main characteristics of the heroin overdoses attended by ambulances in Melbourne in the period between July 1999 and June 2000.

Table 24. Characteristics of non-fatal heroin overdoses in Melbourne, July 1999 to June 2000.

Characteristics of non-fatal heroin overdoses attended by ambulances in Melbourne (July 1999 - June 2000)	
Age of victim	mean=27.07 range=14-66
Gender of victim	77% male
Location of overdose	50% indoors; 70% public, 30% private
Peak day of week	Thursday, Friday
Peak time of day	11 AM - 8 PM
Police attendance	15%

Source: Turning Point Alcohol and Drug Centre

This shows that the majority of overdoses occurred among males, aged in their mid to late 20s, in public locations. Peak days of the week for non-fatal heroin overdose tend to be Thursday and Friday between the hours 11:00 am to 8:00 pm. Police attendance at non-fatal overdoses in Melbourne is consistently low, representing 15% of cases during the period reported here, compared to 12% in the previous year.

Table 25. Non-fatal heroin overdoses in local government areas in metropolitan Melbourne, July 1999 to June 2000.

Local Government Area	Definite heroin overdoses attended	% of total
Melbourne (C)	1137	28.53
Yarra (C)	485	12.18
Maribyrnong (C)	472	11.83
Greater Dandenong (C)	385	9.65
Port Phillip (C)	332	8.32
Darebin (C)	108	2.72
Frankston (C)	106	2.67
Moonee Valley (C)	96	2.42
Brimbank (C)	95	2.37
Whitehorse (C)	70	1.75

As shown in Table 25, the local government areas with the highest rates of ambulance attendance for non-fatal heroin overdose in Melbourne are the Cities of Melbourne, Yarra,

Maribyrnong, Greater Dandenong and Port Phillip - all areas of established street-based heroin markets. Together these five municipalities represent the majority of all non-fatal heroin overdose episodes in Melbourne. Proportionally, the cities of Melbourne (28%) and Maribyrnong (12%) have seen an increase in non-fatal overdose episodes compared to the same period last year.

4.3.3 Drug deaths

Heroin-related

The data for trends in heroin-related mortality in Victoria are summarised in Table 26. This table, based on VIFM data, shows an increasing trend in the number of heroin-related deaths in Victoria throughout the 1990s despite some fluctuations from year to year.

Table 26. Numbers of heroin-related deaths in the Victoria, 1991-2000.

Year	Number of heroin-related deaths
1991	49
1992	98
1993	59
1994	84
1995	140
1996	169
1997	168
1998	268
1999	365
2000 ¹	330

¹ 2000 figure (N=330) may be revised after all toxicology results are processed
 Source: Victorian Institute of Forensic Medicine, Monash University

Closer inspection of Table 26 reveals a substantial increase (60%) in the number of heroin-related deaths in Victoria from 1997 to 1998 and from 1998 to 1999 (36%). The interim figure of 330 heroin-related deaths for 2000 suggests that there may have been a downturn in heroin related mortality from 1999 to 2000.

Victorian Institute of Forensic Medicine data (Gerostamoulos, Staikos & Drummer, 2000) showed that heroin fatalities in Victoria during 1999 were typically male (80%) with an average age of 30 (±8), and that they mostly occurred in private residences (60%). These data

also show that 52% of people died alone, 63% were HCV positive and 47% unemployed. In 1999, 10 percent of fatalities (n=35) occurred within the suburb of Melbourne, seven percent in the suburbs of St Kilda (n=24) and Footscray (n=25), and six percent (n=20) in Dandenong / Springvale.

Recently released ABS data on opioid overdose deaths suggest that Victoria has the highest overdose rate in Australia at 163.9 per million persons (representing a 65% increase on the rate of 99.6 per million recorded for 1998).

4.3.4 Blood borne virus transmission

Blood borne viruses (HIV, hepatitis B and C) represent a major health risk for individuals who inject drugs. An integrated surveillance system has been established in Australia for the purposes of monitoring the spread of these diseases. The sharing of equipment for injecting illicit drugs has infrequently resulted in HIV transmission in Australia, but transmission of the hepatitis C virus continues to occur at very high rates among people who inject drugs. The Victorian Department of Human Services records notifications of diagnoses of HIV and hepatitis B and C in Victoria.

Table 27 shows the trend in notifications of diagnoses of HIV where injecting drug use was identified as an exposure factor² in Victoria by year of diagnosis, 1989 to end of 1999. This table shows that throughout this period there has been a consistently low proportion of HIV diagnoses where injecting drug use was identified as an exposure factor (Victorian Department of Human Services, 2000b).

At the end of 1999, injecting drug use had been identified as an exposure factor in 8% of all Victorian HIV infections (ie. 334 people). Injecting drug use without male-to-male sexual contact has been stable at around three to four percent of all diagnoses (Victorian Department of Human Services, 2000). The evidence of low rates of HIV infection among IDU is reinforced by the results of a study of attendees three fixed-site metropolitan Needle Syringe Programs in Victoria in 1999 in which it was found that of 205 clients who provided blood tests, only two (1%) were found to be HIV positive (National Centre in HIV Epidemiology and Clinical Research, 2000).

² Includes the exposure categories of *injecting drug use* and *homosexual/bisexual and injecting drug use*

Table 27. Annual number of notifications of HIV diagnoses in Victoria where injecting drug use has been identified as the likely exposure factor, 1990 to 1999.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Number	35	22	20	23	20	15	14	15	15	18
% of HIV diagnoses	11.5	7.0	7.5	9.8	8.9	8.3	7.2	8.0	10.1	13

Source: Victorian Department of Human Services

In contrast, the situation with regard to hepatitis C virus (HCV) infection among injecting drug users in Victoria is of major concern. There is evidence of a continuing high level of prevalence of HCV infection among this group of drug users. This is demonstrated in the findings of the sentinel surveillance data for attendees at three fixed site metropolitan Needle and Syringe Programs in Victoria in November 1999 in which 60% of the sample were found to have antibodies to HCV (National Centre in HIV Epidemiology and Clinical Research, 2000).

Table 28. Prevalence of HCV and HIV infection among NSP clients in Victoria 1996-1999.

	1996			1997			1998			1999		
	Male (n=128) %	Female (n=61) %	Total %	Male (n=294) %	Female (n=141) %	Total %	Male (n=193) %	Female (n=90) %	Total %	Male (n=135) %	Female (n=69) %	Total %
HCV	44	56	48	48	57	51	54	53	54	60	58	60
HIV	2.3	0.0	1.6	1.4	0.7	1.1	0.0	0.0	0.0	1.5	0.0	1.0

Source: National Centre in HIV Epidemiology and Clinical Research

Table 29 summarises the number of notifications received for diagnoses of hepatitis C infection in Victoria from 1992 to 1999. The data demonstrates that there have been a large number of notifications in Victoria throughout the 1990s and the available evidence suggests that the vast majority of HCV infections have occurred through injecting drug use (MacDonald, Crofts and Kaldor, 1996).

Table 29. Victorian hepatitis C notifications by year and gender, 1992-1998

Year	1992	1993	1994	1995	1996	1997	1998	1999
Female	434	985	1394	1684	1748	1848	2561	2425
Male	781	1602	2122	2705	2780	2996	4007	3919
Not specified	50	75	34	124	16	105	148	156
Total	1265	2662	3550	4513	4544	4949	6716	6500

Source: Victorian Department of Human Services

4.3.5 Arrest data

Data pertaining to drug-related arrests in Victoria in 1999/00 are shown in Table 30. Data reported for the 1999/00 period were obtained from the Victoria Police Law Enforcement Assistance Program (LEAP) database, whereas data reported for previous years were obtained from the ABCI.

Table 30. Number of arrests for cannabis, heroin, amphetamine and cocaine related offences in Victoria, 1995/96-1999/00.

Type of offences	1995/96 ¹	1996/97 ¹	1997/98 ¹	1998/99 ¹	1999/00 ²
Cannabis offences	19120	9121	9034	9286	7354
Heroin offences	3811	3396	5537	8153	5952
Amphetamines	1633	NA	744	1028	910
Cocaine	36	29	32	70	42

¹ Source: Australian Bureau of Criminal Intelligence

² Source: Victoria Police, Statistical Services Branch

These data show an apparent decrease from 1998/99 to 1999/00 in the number of arrests for all four drug types, after a period of increase since 1996/97. In contrast, Table 31 shows that the proportion of consumer arrests as a proportion of all drug-related arrests in Victoria has remained relatively stable from 1998/99 to 1999/00, except for small decreases for heroin and amphetamines.

It is reasonable to expect arrest patterns to change following continued expansion of drug diversion programs, the objective of which is to divert drug users from the criminal justice system into education and treatment.

Advice received from the Victoria Police Statistical Services Branch suggests that 1999/00 arrest data reported here may differ from that published by the ABCI, due to the dynamic nature of the LEAP database. It is difficult to interpret the uniform reduction in arrest numbers shown in Table 30.³

Table 31. Consumer arrests as a proportion of all drug-related arrests in Victoria, 1995/96-1998/99.

Drug Type	% Consumers			
	1995/96 ¹	1997/98 ¹	1998/99 ¹	1999/00 ²
Cannabis	77	65	85	86
Heroin	80	66	75	69
Amphetamines	81	69	74	69
All illicit drugs	78	66	79	77

¹ Source: Australian Bureau of Criminal Intelligence

² Source: Law Enforcement Assistance Program database (LEAP), Victoria Police, Statistical Services Branch

4.4 Summary of drug-related issues

The main drug-related issues to emerge from the Melbourne arm of the 2000 IDRS study include:

- Continuing reports from IDU's of injecting-related health problems (eg. injection-site scarring, infections and other damage).
- A continuing high number of heroin-related fatalities in 2000.
- A continuing increase in the occurrence of non-fatal heroin-related overdoses requiring ambulance attendance.
- High rates of hepatitis C virus infection among injecting drug users, coupled with persistent unsafe injecting behaviour.
- Continuing IDU involvement in crime (mostly dealing and property crimes), and perceived increase in police activities focused on street-level IDU's.

³ Corrected Victorian arrest data soon to be published, as part of the annual ABCI *Australian Illicit Drug Report* should provide a more accurate picture.

- A high and often unmet demand for treatment services for individuals experiencing problems with heroin use.

5.0 SUMMARY OF FINDINGS

5.1 Comparison of data from different sources

The following section provides a comparison of current and emerging drug trends obtained from the IDU survey, key informants and the secondary indicator data. In general there was good agreement between the data sources for the four main drugs of focus – heroin, amphetamines, cocaine and cannabis. Most trends are supported primarily by IDU and key informant reports, reflecting the general paucity of available secondary illicit drug indicator data. However, in cases where all three data sources were available, these typically showed good agreement.

Heroin trends

Table 32. Heroin trends identified in IDU reports, key informant reports, and other indicator sources.

HEROIN TRENDS	IDU	KI	OTHER
\$50 deals (0.09gm – 0.15 gm) more common than \$20-\$25 (0.03gm)	✓	✓	
Availability very easy and stable	✓	✓	
Medium to high purity	✓	✓	✓
Continuing proportion of users smoking heroin	✓	✓	
Increase in frequency and amount of heroin use	✓	✓	✓
Increase in numbers of people using heroin	✓	✓	✓
Substantial levels of benzodiazepine use among heroin injectors	✓	✓	
Broader spectrum of users (eg. young heroin users, broader social groups)	✓	✓	
Continuing street-based heroin markets	✓	✓	
Apparent increase in use of mobile dealers and dealers' homes as heroin source	✓	✓	
Increase in demand for treatment services, particularly methadone and detoxification services		✓	✓

After a period of decreasing heroin prices and increasing purity, these variables appear to have stabilised recently within the Melbourne heroin market. Of particular note is that the prevalence and availability of \$50 heroin deals (between 0.09gm – 0.15 gm) noted in the 1999 Melbourne IDRS study has increased according to evidence from the 2000 study (such that smaller deals or ‘caps’ of around 0.03gms costing \$20-\$25 are now rarely purchased within street markets). Reports suggest that heroin remained readily available within Melbourne’s persistent street markets during the first six months of 2000. However, there has been some indication that users are accessing heroin through mobile dealers and dealer residences more often. Heroin injectors are reportedly using the drug more frequently and in increasing amounts, probably due to growing rates of dependence. Reports also indicate that there is a significant prevalence of heroin burning, and that there has been a continuing increase in the numbers of people using heroin (particularly younger initiates and diverse social groups).

Amphetamine trends

Table 33. Amphetamine trends identified in IDU reports, key informant reports, and other indicator sources.

AMPHETAMINE TRENDS	IDU	KI	OTHER
Price of amphetamines stable (\$50 per gram)	✓	✓	
Increasing availability of pure amphetamines (smaller deals, > prices)	✓	✓	✓
Amphetamine availability stable	✓	✓	
Purity low (small increase)	✓	✓	✓
Low frequency of use by IDU	✓	✓	✓
Drug of choice for only small proportion of IDU sample	✓	✓	
Apparent increase in prevalence of IDU smoking	✓		
“Ice” available but not widespread	✓	✓	

The reported price, purity and availability of amphetamines have remained stable across the four years of the Victorian IDRS. Findings from the 2000 IDRS suggest that the prevalence of amphetamine use among injecting drug users in Melbourne is low, and that the drug is predominantly sourced through social networks and home-based dealers (rather than on the street). The apparent low prevalence of amphetamine use in Melbourne has previously been

interpreted as due to the typically low purity of the drug in this jurisdiction. While purity levels of law enforcement methamphetamine seizures has remained relatively stable during the past four years of the study, reports were received this year on the availability of ‘pure’ amphetamines in Melbourne. A significant number of respondents indicated that they had purchased pure 0.1gm amounts of amphetamines (costing \$50) and pure gram amounts (costing \$200) during the first six months of 2000. Some reports suggest that methylamphetamine hydrochloride (‘ice’, ‘shabu’) is emerging within the injecting drug scene in Melbourne on a recreational basis. Further in-depth investigation of this trend is warranted.

Cocaine trends

Table 34. Cocaine trends identified in IDU reports, key informant reports, and other indicator sources.

COCAINE TRENDS	IDU	KI	OTHER
Price of cocaine stable (\$250 per gram)	✓	✓	
Unreliable reports for smaller quantities	✓	✓	
Availability difficult	✓	✓	
Purity medium and stable	✓	✓	✓
Desirable but too expensive for IDU sample	✓	✓	
Used infrequently by IDU's	✓	✓	
No evidence of street cocaine market	✓	✓	

Relatively few key informants or injecting drug users were able to comment on Melbourne cocaine trends. While the cost of gram amounts of cocaine has remained stable, low numbers of highly variable reports on cocaine ‘caps’ confirm that the drug continues to be used infrequently by the injecting drug users accessed through the IDRS. The evidence suggests that cocaine is at present not available within street-based heroin markets in Melbourne.

Cannabis trends

The Melbourne cannabis market and patterns of use continue to be relatively stable with only a slight reduction in ounce prices. Cannabis availability, perceived potency and use frequency and quantity have remained unchanged between 1997 and 2000.

Table 35. Cannabis trends identified in IDU reports, key informant reports, and other indicator sources.

CANNABIS TRENDS	IDU	KI	OTHER
Price of cannabis ounce decreased (\$280)	✓		
Availability stable and very easy	✓	✓	
Accessed through social networks (not street based)	✓	✓	
Potency medium – high and stable	✓	✓	
Use of cannabis widespread through broad cross-section of community (increasing prevalence)	✓	✓	✓
Increase in people accessing services for cannabis-related issues		✓	
Cannabis users characterized as poly-drug users	✓	✓	

Some reports were received to indicate that cannabis hash is being used more often by injecting drug users, and that the prevalence of use of the drug may have increased recently. Cannabis appears to be the most widely used illicit drug within Victoria, and is a common addition to the list of drugs used concurrently by injecting drug users.

Other drug trends

Table 36. Other drug trends identified in IDU reports, key informant reports, and other indicator sources.

OTHER DRUG USE	IDU	KI	OTHER
Some use of other opiates (eg. <i>Panadeine Forte</i> ®, morphine)	✓	✓	
Substantial proportion of IDU injecting benzodiazepines (ie. <i>Normison</i> ® capsules)	✓	✓	
Existence of street-level black market in benzodiazepines		✓	
Substantial proportion of IDU using anti-depressants	✓	✓	

Sizeable minority of IDU have used ecstasy recently	✓	✓	
Ecstasy readily available in certain settings (eg. dance/rave parties)	✓	✓	
Recent prevalence and frequency of hallucinogen use low	✓	✓	
Persistent 'chroming' among early secondary school aged youth		✓	

The 2000 Melbourne IDRS study has yet again provided evidence of significant prescription drug use by injecting drug users (eg. panadeine forte®, morphine, benzodiazepines and anti-depressants). Of particular concern is the apparent increase identified in the prevalence of benzodiazepine injection (mostly *Normison*® capsules) amongst injecting drug users, and reports of the existence of a street-based black-market for benzodiazepines.

Drug-related health and law enforcement trends

Table 37. Drug related health and law enforcement trends identified in IDU reports, key informant reports, and other indicator sources.

DRUG-RELATED ISSUES	IDU	KI	OTHER
Increase in fatal and non-fatal heroin overdoses	✓	✓	✓
Substantial levels of injection-related health problems	✓	✓	
Continuing transmission of hepatitis C virus among IDU		✓	✓
Persistent levels of unsafe injecting behaviour	✓	✓	✓
Increase in dispensing of injection equipment from NSP's		✓	✓
Continuing high level of criminal activity among some injecting drug users (primarily drug dealing and property crime)	✓	✓	✓
Increased police activity	✓	✓	
Significant minority report police activity makes drug purchasing difficult	✓		
Poor general health and social functioning among many IDU		✓	
Increased crime towards IDU (standovers and rip-offs)	✓	✓	

5.2 Study limitations

The aim of the IDRS is to obtain evidence of emerging trends in illicit drug use and related problems within the community. The study is not designed to provide a definitive or detailed explication of these trends. Rather, the primary purpose of IDRS findings is to (where appropriate) inform future policy and research responses to the public health and law enforcement challenges presented by illicit drug use in each state and territory within Australia.

The IDRS approach relies on the perceptions of individuals involved in and exposed to the illicit drug scene (both individuals who inject drugs and professionals working with these groups). Where possible, these subjective reports are compared against secondary indicators. However, given the hidden nature of illicit drug use, the availability of reliable indicator data is often limited.

Further, the IDRS study principally gathers evidence on emerging trends among people in contact with drug treatment, health and other services. As this population is not necessarily representative of all illicit drug users (eg. those who do not routinely access such services, recreational/non-dependent illicit drug users), the generalisability of the present results is limited. Future inclusion of alternative sentinel groups and use of additional recruitment methodologies will assist in addressing this issue.

The first author's experience in applying the IDRS methodology in Melbourne since 1997 has demonstrated that the majority of Melbourne IDU's accessed through NSP's and drug treatment services have been often unable to provide reliable reports regarding current designer drug market trends (particularly methamphetamines, ecstasy, and cocaine).

The authors are particularly encouraged therefore by the results of the IDRS designer drugs module trial in NSW, QLD and SA during 2000. By targeting a different sentinel group (ie. illicit drug users other than NSP clients), this pilot study was able to obtain more reliable information regarding ATS markets, patterns of use and related health harms in those jurisdictions. Further, the authors are currently exploring options for including this module as part of the core data collection schedule for the 2001 Melbourne arm of the IDRS study.

5.3 Implications of the findings for future research

While the aim of the IDRS study is to gather evidence that points to emerging trends in illicit drug use and related problems within the community, it is not intended as a comprehensive and detailed investigation of illicit drug trends.

The role of the Melbourne arm of the IDRS study is to identify yearly illicit drug use trends, and provide recommendations regarding key areas and issues that warrant further in-depth investigation.

The findings of the 2000 Melbourne IDRS study suggest the following priority areas for future research:

1. Research to explore the nature of benzodiazepine use among injecting drug users, the characteristics of the illicit benzodiazepine market in Melbourne, prescribing and dispensing practices, and the health harms associated with benzodiazepine misuse.
2. Continued monitoring of the characteristics and impact of cocaine use within Melbourne, with an increased focus upon target groups other than injecting drug users.
3. Further research to gain a better understanding of the determinants of unsafe injecting, particularly for those injecting practices that increase the risk of blood-borne virus transmission (eg. HIV, HCV and HBV).
4. Improved monitoring of the characteristics and impact of amphetamine type stimulant (ATS) use in Melbourne, including an increased focus upon target groups other than injecting drug users (eg. rave / dance scene, gay/lesbian target groups)
5. Further investigation of heroin burning / smoking, focusing upon initiation to use and factors associated with transitions to injecting drug use.
6. Research examining the potency and pharmacological properties of cannabis that is being grown and consumed within Victoria.

The Melbourne arm of the IDRS study has been a rapid, reliable, cost-effective and informative mechanism for the surveillance of illicit drug trends in Victoria. It yields data that are comparable from year-to-year and across jurisdictions, and it is a study that has much to offer health and law enforcement sectors in their efforts to respond more effectively to

illicit drug trends. It is particularly effective in identifying emerging illicit drug trends that require further investigation and/or policy responses.

Turning Point Alcohol & Drug Centre is committed to ensuring that this important early warning system for illicit drug trends continues to provide quality information to stakeholders, and will be focusing future efforts on those opportunities that exist for improving this study locally.

6.0 REFERENCES

- Australian Bureau of Criminal Intelligence. (1999). *Australian Illicit Drug Report 1997-98*. Canberra: Australian Bureau of Criminal Intelligence.
- Australian Institute of Health and Welfare. (1999). *1998 National Drug Strategy Household Survey. First Results*. AIHW cat no. PHE 15. Canberra: AIHW (Drug Statistics Series).
- Clark, C., & Roeg, S. (2000). *What goes up, must come down: Alcohol and drug workers responding to cocaine use*. Melbourne: Victorian Department of Human Services.
- Crofts, N., Aitken, C. K., & Kaldor, J. M. (1999). The force of numbers: why hepatitis C is spreading among Australian injecting drug users while HIV is not. *Medical Journal of Australia*, 170, 220-221.
- Crofts, N., Jolley, D., Kaldor, J., van Beek, I., & Wodak, A. (1997). Epidemiology of hepatitis C virus infection among injecting drug users in Australia. *Journal of Epidemiology and Community Health*, 51, 692-697.
- Darke, S., Hall, W., & Topp, L. (2000). *The Illicit Drug Reporting System (IDRS) 1996-2000*. National Drug and Alcohol Research Centre Technical Report 101. Sydney: University of NSW.
- Dietze, P. M., Cvetkovski, S., Rumbold, G. R., & Miller, P. (2000). Ambulance attendance at heroin overdose in Melbourne: The establishment of a database of Ambulance Service records. *Drug and Alcohol Review*, 19(1), 27-33.
- Dietze, P., Fry, C., Rumbold, G., & Gerostamoulos (in press). The context, management and prevention of heroin overdose in Victoria: The promise of a diverse approach. *Addiction Research*.
- Drug Policy Expert Committee (2000). *Drugs: Meeting the challenge*. Stage two report. Melbourne: State Government of Victoria.

- Drug Treatment Services (1996). *1995 Victorian Drug Household Survey*. Survey Report Melbourne: Aged Community and Mental Health Division, Department of Human Services.
- Dwyer, R. & Rumbold, G. (2000a). *Victorian Drug Trends 1999: Findings from the Illicit Drugs Reporting System (IDRS)*. National Drug and Alcohol Research Centre, Technical Report 89. Sydney: University of NSW, 2000.
- Dwyer, R., & Rumbold, G. (2000b). *Illicit Drug Reporting System Community Report*. Community Report Series No. 2. Fitzroy, Victoria: Turning Point Alcohol and Drug Centre Inc, February, 2000.
- Fry, C., & Miller, P. (2001). *Illicit Drug Reporting System (IDRS) Community Report*. Series 3. Fitzroy, Victoria: Turning Point Alcohol and Drug Centre Inc.
- Gerostamoulos, J., Staikos, V. & Drummer, O. H. (2000). *Heroin Deaths in Victoria: 1997 - 1999. Report No 3*. Melbourne: Victorian Institute of Forensic Medicine, Monash University.
- Hall, W., Ross, J., Lynskey, M., Law, M., & Degenhardt, L. (2000). *How many dependent opioid users are there in Australia?* National Drug and Alcohol Research Centre Monograph 44. Sydney: University of NSW.
- Hall, W., & Swift, W. (2000). The THC content of cannabis in Australia: evidence and implications. *Australian and New Zealand Journal of Public Health*, 24(5), 503-508.
- Hando, J. & Darke, S. (1998). *NSW Drug Trends 1997. Findings from the Illicit Drug Reporting System (IDRS)*. National Drug and Alcohol Research Centre Technical Report 56. Sydney: University of NSW.
- Hando, J., Darke, S., Degenhardt, L., Cormack, S. & Rumbold, G. (1998). *Drug Trends 1997. A comparison of drug use and trends in three Australian states: Results from a national trial of the Illicit Drug Reporting System (IDRS)*. National Drug and Alcohol Research Centre Monograph 36. Sydney: University of NSW.
- Hando, J., O'Brien, S., Darke, S., Maher, L. & Hall, W. (1997). *The Illicit Drug Reporting System Trial: Final Report*. National Drug and Alcohol Research Centre Monograph 31. Sydney: University of NSW.

- Horwood, J. (2000). *Regional response unit illicit drug survey: Heroin, amphetamine and cannabis in Victoria*. Victoria Police, Drug and Alcohol Policy Coordination. Melbourne: Victoria Police.
- Kellehear, A. (1993). *The Unobtrusive Researcher: A guide to methods*. Sydney: Allen & Unwin.
- Kutin, J., Rumbold, G., & Dietze, P. (1997). Evaluating the impact of the introduction of new pharmacotherapies in Victoria: the epidemiology of heroin dependence. In A. Ritter, J. Kutin, Lintzeris, N., & Bammer, G. (Eds.) (1997). *Expanding treatment options for heroin dependence in Victoria: buprenorphine, LAAM, naltrexone and slow-release oral morphine. New Pharmacotherapies Project - Feasibility Phase*. Fitzroy, Victoria: Turning Point Alcohol & Drug Centre Inc.
- Lenton, S. Kerry, K., Loxley, W., Tan-Quigley, A., & Greig, R. (2000). Citizens who inject drugs: the 'Fitpack' study. *International Journal of Drug Policy*, 11(4), 285-297.
- Lintzeris, N., Lenné, M., & Ritter, A. (1999). Methadone injecting in Australia: a tale of two cities. *Addiction*, 94(8), 1175-1178.
- Lynskey, M., White, V., Hill, D., Letcher, T., & Hall, W. (2000). Prevalence of illicit drug use among youth: results from the Australian School Students' Alcohol and Drugs Survey. *Australian and New Zealand Journal of Public Health*, 23(5), 519-524.
- MacDonald, M., Crofts, N. & Kaldor, J. (1996). Transmission of hepatitis C virus: rates, routes and cofactors. *Epidemiologic Reviews* 18(2):137-148.
- Makkai, T. & McAllister, I. (1998). *National Drug Strategy. Public opinion towards drug policies in Australia*. Publication Number 2206. Canberra: Commonwealth Department of Health and Family Services.
- Malcolm, A., Dwyer, R., Armstrong, L., Miles, A. & van Beek, I. (2000). *The Okey-Doke Report: An investigation of cocaine injecting drug users*. Sydney: Kirketon Road Centre.

- McKetin, R., Darke, S. & Godycka-Cwirko, K. (1999). *New South Wales Drug Trends 1998. Findings from the Illicit Drugs Reporting System (IDRS)*. National Drug and Alcohol Research Centre Technical Report 72. Sydney: University of NSW.
- McKetin, R., Darke, S., Hayes, A. & Rumbold, G. (1999). *Drug Trends 1998. A comparison of drug use and trends in three Australian states: Findings from the Illicit Drug Reporting System (IDRS)*. National Drug and Alcohol Research Centre Monograph No. 41. Sydney: University of NSW.
- McKetin, R., Darke, S., Humeniuk, R., Dwyer, R., Bruno, R., Fleming, J., Kinner, S., Hargreaves, K., & Rysavy, P. (2000). *Australian Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. National Drug and Alcohol Research Centre Monograph No. 43. Sydney: University of NSW.
- McManus, P., Plant, A., Mitchell, P. B., Montgomery, W. S., Marley, J., & Auland, M. E. (2000). Recent trends in the use of antidepressant drugs in Australia, 1990-1998. *Medical Journal of Australia*, 173, 458-461.
- National Centre in HIV Epidemiology and Clinical Research. (2000). *HIV/AIDS, Hepatitis C and Sexually Transmissible Infections in Australia: Annual Surveillance Report 2000*. Sydney: University of NSW.
- O'Brien, E., D'Souza, R., Gilroy, N., Burgess, M., Lister, S., McIntyre, P., Torvaldsen, S., Moser, K., & Milton, A. (1999). Australia's notifiable diseases status, 1997. Annual report of the National Notifiable Diseases Surveillance System. *Communicable Diseases Intelligence*, 23(1), 1-28.
- Rumbold, G. & Fry, C. (1998). *Victorian Drug Trends 1997: Findings from the Illicit Drug Reporting System (IDRS)*. National Drug and Alcohol Research Centre Technical Report 59. Sydney: University of NSW.
- Rumbold, G. & Fry, C. (1999). *Victorian Drug Trends 1998: Findings from the Illicit Drugs Reporting System (IDRS)*. National Drug and Alcohol Research Centre Technical Report 73. Sydney: University of NSW.
- SPSS Inc. 1996. "SPSS for Windows. Standard Version," Release 9.01 edition. Chicago: SPSS Inc.

Victorian Department of Human Services (undated). *1996 Victorian Needle and Syringe Exchange Program and Pharmacy Sale of Needles and Syringes*. Melbourne: Author.

Victorian Department of Human Services (2000a). *The Victorian Drug Statistics Handbook: Patterns of drug use and related harm in Victoria*. Drug Treatment Services. Melbourne: Author.

Victorian Department of Human Services (2000b). *Surveillance of sexually transmissible infections in Victoria 1999*. Public Health Division, Communicable Diseases Section. Melbourne: Author.

Victorian Department of Human Services (in press-a). *The Victorian Drug Statistics Handbook: Patterns of drug use and related harm in Victoria*. Melbourne: Author.

Victorian Department of Human Services (in press-b). *School students and drug use: Summary report*. Melbourne: Author.

7.0 APPENDIX A

Chronology of key drug-related events in Victoria, 9/99 to 6/00

Date	Source	Event
13 Sep 1999	The Age	Prominent Lawyer arrested in \$6 million dollar cocaine raid
2 Nov 1999	The Age	Victorian Health minister announces that personal cannabis use will be de-criminalized
27 Nov 1999	The Age	Police seize amphetamines with an estimated street value of \$20 million.
6 Dec 1999 - 28 Jan 2000	Herald-Sun	Operation Minder operates in the Melbourne CBD
11 January 2000	Herald-Sun	Federal Police officers have seized 76kg of ecstasy in Australia' s biggest haul of the drug. The ecstasy as well as 9kg of cocaine were seized in Brisbane and Sydney.
20 January 2000	Herald-Sun	Police seize 51kg of imported ecstasy.
28 January 2000	Herald-Sun	The discovery of an amphetamine laboratory at Corinella, near Phillip Island.
31 January 2000	Herald-Sun	Police seized chemicals and amphetamine-making equipment during a raid on an Oakleigh South factory yesterday.
8 February 2000	Herald-Sun	\$1.2m heroin haul
21 February 2000	Herald-Sun	46 arrests in street drug blitz. Police have checked 840 people at the Springvale shopping centre since February 21 and 97 were searched for drugs. Part of the on-going operation Belgrade
24 February 2000		More than 8.5kg of heroin was found in block and powder form, and NCA officers also seized a car from the garage of the rented home in Ashfield.
14 March 2000	Herald-Sun	\$2m of ecstasy tablets have been seized and two people arrested in a drug swoop in Melbourne with more than 50,000 of the party pills.
23 March 2000	Herald-Sun	Herald Sun reports that Heroin scourge costs you \$300.
5 April 2000	Herald-Sun	Operation Reform commences
19 April 2000	The Age	Supervised injecting facilities for heroin users will be given an 18-month trial in five municipalities under proposals announced by the Victorian Government.
1 May 2000	Herald-Sun	A series of raids on syndicate properties in Melbourne and Perth in recent days resulted in the seizure of 6.3kg of heroin worth more than \$6 million, \$740,000 in cash and the arrest of seven men.
5 May 2000	Herald-Sun	A raid on St Kilda police station unearthed a cache of guns, drugs and cash. Senior police said there was no legal reason for the items to be hidden in the ceiling of offices used by the 23 members of the St Kilda criminal investigation unit and the Embona taskforce.
13 May 2000	The Age	Police flood streets as a part of Operation Minder.
26 May 2000	Herald-Sun	Drugs were seized and 10 people arrested in an overnight police raid on St Kilda's Esquire Motel.
30 May 2000	The Age	Government reveals details on injection rooms scheme.
3 June 2000	Herald-Sun	Victorian police chief Neil Comrie has vowed to continue patrols near the centres, warning officers will only turn a blind eye to addicts found with small amounts of heroin.

