A. Matthews & R. Bruno

TASMANIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2004
Findings from the Party Drugs Initiative (PDI)

NDARC Technical Report No. 225

TASMANIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2004

Findings from the Party Drugs Initiative (PDI)

Allison Matthews and Raimondo Bruno

School of Pharmacy and School of Psychology
University of Tasmania

NDARC Technical Report No. 225

ISBN 0 7334 2241 1

TABLE OF CONTENTS

LIST OF TABLES IV

LIST OF FIGURES VI

ACKNOWLEDGEMENTS VII

ABBREVIATIONS VIII

EXECUTIVE SUMMARY IX

1.0 INTRODUCTION 1
1.1 Study aims 1

2.0 METHODS 2
2.1 Survey of regular ecstasy users (REU) 2
2.2 Survey of key experts (KE) 3
2.3 Other indicators 4

3.0 OVERVIEW OF REGULAR ECSTASY USERS (REU) 6
3.1 Demographic characteristics of the REU sample 6
3.2 Drug use history and current drug use 8
3.3 Summary of demographic and polydrug use trends in REU 11

4.0 ECSTASY 12
4.1 Ecstasy use among REU 12
4.2 Summary of patterns of ecstasy use 17
4.3 Price 18
4.4 Purity 19
4.5 Availability 21
4.6 Summary of the price, purity and availability of ecstasy 23
4.7 Ecstasy related harms 24
4.8 Benefit and risk perception 28
4.9 Summary of ecstasy harms and trends of use 32

5.0 METHAMPHETAMINE 33
5.1 Methamphetamine use among REU 34
5.2 Price 39
5.3 Purity 43
5.4 Availability 46
5.5 Methamphetamine related harms 49
5.6 Summary of Methamphetamine Trends 55

6.0 COCAINE 56
6.1 Cocaine use among REU 56
6.2 Price 57
6.3 Purity 58
6.4 Availability 59
6.5 Cocaine related harms 59
6.6 Summary of Cocaine Trends 62

7.0 KETAMINE 63
7.1 Ketamine use among REU 63
7.2 Price 65
7.3 Purity 65

7.4 Availability 66
7.5 Ketamine related harms 67
7.6 Summary of Ketamine Trends 68

8.0 GHB 69
8.1 GHB use among REU 69
8.2 Price 70
8.3 Purity 71
8.4 Availability 71
8.5 GHB related harms 71
8.6 Summary of GHB Trends 72

9.0 LSD 73
9.1 LSD use among REU 73
9.2 Price 75
9.3 Purity 75
9.4 Availability 76
9.5 LSD related harms 77
9.6 Summary of LSD Trends 78

10.0 MDA 79
10.1 MDA use among REU 79
10.2 Price 80
10.3 Purity 81
10.4 Availability 82
10.5 MDA related harms 83
10.6 Summary of MDA Trends 84

11.0 OTHER DRUGS 85
11.1 Alcohol 85
11.2 Cannabis 86
11.3 Tobacco 90
11.4 Benzodiazepines 91
11.5 Antidepressants 92
11.6 Inhalants 93
11.7 Heroin 95
11.8 Methadone 96
11.9 Buprenorphine 96
11.10 Other opiates 96
11.11 Pharmaceutical Stimulants 97
11.12 Psychedelic Mushrooms 98
11.13 Other drugs 98
11.14 Summary of other drug use 101

12.0 RISK BEHAVIOUR 102
12.1 Injecting risk behaviour 102
12.2 BBVI vaccination testing and self reported status 105
12.3 Sexual risk behaviour 106
12.4 Tattooing and piercing 108
12.5 Driving risk behaviour 109
12.6 Binge drug use 110
12.7 Summary of risk behaviour among regular ecstasy users 111

13.0 HEALTH RELATED ISSUES 112
13.1 Overdose 112

13.2 Self reported symptoms of dependence....112
13.3 Help-seeking behaviour....112
13.4 Other problems....113
13.5 Access to drug and harm reduction information....115
13.6 Summary of health related issues....117

14.0 CRIMINAL AND POLICE ACTIVITY....118
14.1 Reports of criminal activity among REU....118
14.2 Perceptions of police activity towards REU....119
14.3 Summary of criminal and police activity....120

15.0 SUMMARY....121
15.1 Demographic characteristics of REU....121
15.2 Patterns of polydrug use....121
15.3 Ecstasy....122
15.4 Methamphetamine....124
15.5 Cocaine....125
15.6 Ketamine....125
15.7 GHB....125
15.8 LSD and other psychedelics....125
15.9 MDA....126
15.10 Other drugs....126
15.11 Risk behaviour....127
15.12 Health related issues....128
15.13 Criminal and police activity....129

16.0 IMPLICATIONS....130

REFERENCES....133

LIST OF TABLES

Table 1. Demographic characteristics of REU sample....7
Table 2. Lifetime and recent polydrug use of REU....8
Table 3. Patterns of ecstasy use among REU....14
Table 4. Polydrug use among REU....15
Table 5. Price of Ecstasy Purchased by REU and Price Variations....18
Table 6. Price of ecstasy reported by Tasmania Police 1998/99-2001/02....19
Table 7. Median purity and number of phenethylamine seizures 1999/00-2003/04....20
Table 8. REU reports of availability of ecstasy in the preceding six months....21
Table 9. Perceived benefits of ecstasy use....29
Table 10. Perceived risks of ecstasy use....30
Table 11. Patterns of methamphetamine powder (speed) use of REU....35
Table 12. Patterns of methamphetamine base use of REU....37
Table 13. Patterns of crystal methamphetamine use of REU....38
Table 14. Price of various methamphetamine forms purchased by REU....40
Table 15. Methamphetamine prices in Tasmania reported by the Tasmania Police Drug Bureaux, 1996-2004....42
Table 16. Purity of seizures of methamphetamine made by Tasmania Police received for laboratory testing, 1997/98 – 2003/04....44
Table 17. Purity of Tasmanian seizures of methamphetamine made by Tasmania Police received for laboratory testing, by quarter, July 1999-June 2004....45
Table 18. Tasmania Police data for methamphetamine: July 2000-June 2004....49
Table 19. Consumer and provider arrests for methamphetamine and related substances, 1996/97-2003/04....50
Table 20. Patterns of cocaine use of REU....57
Table 21. Price of cocaine purchased by REU and price variations....58
Table 22. REU reports of availability of cocaine in the preceding six months....59
Table 23. Patterns of ketamine use of REU....64
Table 24. Price of ketamine purchased by REU....65
Table 25. REU reports of availability of Ketamine in the preceding six months....67
Table 26. Patterns of GHB use of REU....70
Table 27. Price of GHB purchased by REU....71
Table 28. Patterns of LSD use of REU....74
Table 29. Prices of LSD purchased by REU....75
Table 30. REU reports of availability of LSD in the preceding six months....77
Table 31. Patterns of MDA use of REU....80
Table 32. Price of MDA purchased by REU....81
Table 33. REU reports of availability of MDA in the preceding six months....83
Table 34. Patterns of Alcohol use of REU....85
Table 35. Patterns of Cannabis use of REU....87
Table 36. Patterns of Tobacco use of REU....90
Table 37. Patterns of Benzodiazepine use of REU....92
Table 38. Patterns of Antidepressant use of REU....93
Table 39. Patterns of Amyl nitrite use of REU....94
Table 40. Patterns of Nitrous oxide use of REU....95
Table 41. Patterns of pharmaceutical stimulant use of REU....97
Table 42. Injecting drug use among lifetime injecting drug users (n=15)....102
Table 43. Recent injecting history among recent injecting drug users (n=9)....103
Table 44. Injecting risk behaviour....104

Table 45. BBVI vaccination, testing and self reported status 105
Table 46. Sexual activity and condom use in the preceding six months 106
Table 47. Sexual activity and condom use under the influence of drugs in the preceding six months 108
Table 48. Tattooing and piercing among regular party drug users 109
Table 49. Driving under the influence of drugs among regular ecstasy users 110
Table 50. Main drug attributed to access of health services 113
Table 51. Main drug attributed to problems experienced in the preceding six months. .114
Table 52. Patterns of access to harm reduction information among REU 115
Table 53. Perceptions of the usefulness of information resources among REU 116
Table 54. Criminal activity reported by REU 119
Table 55. Perceptions of police activity by REU 120

LIST OF FIGURES

Figure 1. Prevalence of Ecstasy use in Australia, 1988-2001 17
Figure 2. REU reports of purity of ecstasy in the preceding six months 19
Figure 3. REU reports of change in purity of ecstasy in the preceding six months 20
Figure 4. Number of seizures of tablets suspected to contain ecstasy by Tasmania police 1995/96-2003/04 23
Figure 5. Number of police incidents recorded for ecstasy possession/use (consumers) and deal/traffic (providers), 1999/00-2003/04 24
Figure 6. Percentage of inquiries to ADIS with regard to each drug type, May 2000 – June 2004. 25
Figure 7. Location of usual methamphetamine use by form in 2004 39
Figure 8. Last location of methamphetamine use by form in 2004 39
Figure 9. Recent change in price of various methamphetamine forms 2004 41
Figure 10. Current purity of various forms of methamphetamine 2004 43
Figure 11. Recent change in purity of various forms of methamphetamine 2004 43
Figure 12. Current availability of various forms of methamphetamine 2003 46
Figure 13. Change in the availability of various forms of methamphetamine in the preceding six months 46
Figure 14. Changes to current availability over time: proportion of REU reporting each methamphetamine form as 'very easy' to obtain in the last six months 2003/2004 47
Figure 15. People from whom methamphetamine forms were purchased in the preceding six months 48
Figure 16. Locations where methamphetamine forms were purchased in the preceding six months 48
Figure 17. Public hospital admissions where methamphetamine was noted as a contributing factor towards diagnosis in Tasmania 1999/00-2002/03 52
Figure 18. Public hospital admissions where methamphetamine was noted as a contributing factor towards diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03 52
Figure 19. Current purity of cocaine 2003/2004 58
Figure 20. Recent change in cocaine purity 2003/2004 58
Figure 21. Public hospital admissions where cocaine was noted as a contributing factor toward diagnosis in Tasmania 1999/00-2002/03 60
Figure 22. Public hospital admissions where cocaine was noted as a contributing factor toward diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03 61
Figure 23. Current purity of ketamine 2003/2004 66
Figure 24. Recent change in ketamine purity 2003/2004 66
Figure 25. Current purity of LSD 2003/2004 76
Figure 26. Recent change in purity of LSD 2003/2004 76
Figure 27. Current purity of MDA 2003/2004 81
Figure 28. Change in purity of MDA 2003/2004 82
Figure 29. Public hospital admissions where cannabis was noted as a contributing factor toward diagnosis in Tasmania 1999/00-2002/03 88
Figure 30. Public hospital admissions where cannabis was noted as a contributing factor toward diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03 89

ACKNOWLEDGEMENTS

This research was funded by the National Drug Law Enforcement Research Fund, and coordinated by the National Drug and Alcohol Research Centre, University of New South Wales. The authors wish to thank these organizations for their support, and in particular Dr Jeanette Packer and Mr. Roger Nicholas from the National Drug Law Enforcement Research Fund for their efforts in facilitating funding for the study.

The authors wish to thank the following people for their contributions to this project::

Jennifer Stafford, Amanda Roxburgh, Bethany White, Courtney Breen and Dr Louisa Degenhardt from the National Drug and Alcohol Research Centre for their assistance throughout the project.

Associate Professor Stuart McLean (Tasmanian School of Pharmacy, University of Tasmania)

The members of the 2004 IDRS Steering Committee: Steve Wood (Australian Customs Service), Lianne Barden and Francine Smith (The Link Youth Health Service), Mark Hollick (Nufit Alcohol and Drug Service, Anglicare), Stephen Biggs, Glen Ball and Jack Johnston (Tasmania Police), Richard Bingham and Paul DeBomford (Department of Justice and Industrial Relations), Sylvia Engels (Alcohol and Drugs Service, Department of Health and Human Services), Kim Oakley and Dominic Parker (Tasmanian Council on AIDS and Related Diseases), Catherine Brown and Nick Holywell (Population Health, Department of Health and Ageing), Dr Sue Moir and Dr Geoff Chapman (Southern Tasmanian Division of General Practice), Mary Sharpe (Pharmaceutical Services, Department of Health and Human Services), and Anne Sheehan (Public Health, Department of Health and Human Services).

Olivia Powell, Zoe Perry, and Sabrina Maeder who conducted the interviews with regular ecstasy users and key experts.

The Key experts who willingly provided their time, effort, and experience to contribute to the project.

The following local organizations and persons who generously provided indicator data: Tasmania Police (Stephen Biggs, Jessica Reidy); Tasmanian Department of Health and Human Services Alcohol and Drug Services (Nick Goddard).

The authors would also like to extend their thanks to the regular ecstasy users who gave their time and trust to provide us with the information contained in this report.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ABCI	Australian Bureau of Criminal Intelligence
ACC	Australian Crime Commission
ADF	Australian Drug Foundation
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
DHHS	Department of Health and Human Services
AIHW	Australian Institute of Health and Welfare
ATSI	Aboriginal and Torres Strait Islander
BBV	Blood borne virus
DXM	Dextromethorphan
ERD	Ecstasy and Related Drugs(s)
GHB	Gamma-hydroxy-butyrate
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human Immunodeficiency Virus
IDRS	Illicit Drug Reporting System
IDU	Injecting Drug User
KE	Key Expert(s) (previously 'Key Informant')
KI	Key Informant
LSD	*d*-lysergic acid
N	(or n) Number of participants
NAP	Needle Availability Program
NSP	Needle and Syringe Program
NDS	National Drug Strategy
NDSHS	National Drug Strategy Household Survey
M	Mean
MAOI	Monoamine Oxidase Inhibitor
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MDEA	3,4-methylenedioxyethamphetamine
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
PDI	Party Drug Initiative
PDU	Party Drug User
PCP	Phencyclidine
REU	Regular Ecstasy User(s) (previously 'Party Drug User')
SD	Standard Deviation
SIS	State Intelligence Services, Tasmania Police
SPSS	Statistical package for the Social Sciences
SSRI	Specific Serotonin Reuptake Inhibitor
TASPOL	Tasmania Police
TCA	Tricyclic Antidepressant
TAS	Tasmania

EXECUTIVE SUMMARY

The Party Drug Initiative (PDI) is a companion project to the Illicit Drug Reporting System (IDRS), designed specifically to examine trends in use, price, purity and availability of ecstasy and related drugs across Australia. For the purpose of this study, the group of drugs under consideration, sometimes termed 'party drugs', includes drugs that are routinely used in the context of entertainment venues such as nightclubs or dance parties / events. These drugs may include ecstasy, methamphetamine, cocaine, LSD, ketamine, MDA (3,4-methylenedioxyamphetamine) and GHB (gamma-hydroxybutyrate).

In 2000, the National Drug Law Enforcement Research Fund (NDLERF) funded a two year, two state trial of the feasibility of monitoring emerging trends in the markets for ecstasy and related drugs. This used the IDRS methodology of triangulation of information from standardised interviews with people who regularly consume such drugs, a qualitative survey of individuals who have regular first-hand contact with such groups of people, and an examination of existing available data sources or indicators relevant to drug use in each state. Following successful utilisation of this methodology to gather information about trends in use, price, purity, and availability of party drugs, the NDLERF funded a two-year expansion of the project into each Australian jurisdiction. This report represents the second year that this study has been employed in Tasmania.

Demographic characteristics of regular ecstasy users (REU)
The one hundred regular ecstasy users interviewed in the present study were typically young, with ages ranging from 18 to 32 years and the majority in their early to mid twenties. Participants were generally well educated and either employed on a fulltime or part time/casual basis or currently engaged in full time study. Few participants were currently in drug treatment or had come into contact with the criminal justice system.

Patterns of drug use among REU
While the participants were selected on the basis of ecstasy use and over half nominated ecstasy as their drug of choice, polydrug use was the norm among the regular ecstasy users interviewed. Participants had use a median of eight drug types (from the investigation of 19 drug types) at some stage of their lives and a median of six drug types in the six months preceding the interview. Participants typically reported recent use of alcohol, cannabis, tobacco, and methamphetamine powder, over one third of participants had recently used LSD, psychedelic mushrooms and nitrous oxide.

Ecstasy
Participants had first started to use ecstasy on a regular basis at 20 years and three quarters had been using ecstasy for two years or more. Ecstasy was typically taken orally, though snorting was also a common route of administration. There was a wide variation in the frequency of ecstasy use among the sample ranging from monthly to several times a week. One quarter had used ecstasy weekly or more frequently, and over one third had used either fortnightly but less than weekly. Two thirds typically used more than one tablet per session and one third used four or more tablets in a typical session of use. Males tended to use larger amounts of ecstasy in a typical session in comparison to females. In comparison to the 2003 sample, frequency of use was slightly lower but the number of tablets used in a typical session and the proportion using more than one tablet in a typical session was higher. One third had recently 'binged' on ecstasy, using the drug

continuously for 48 hours or more without sleep. Whereas the long term effects and risks of extended ecstasy use are largely unknown, evidence from toxicology studies in rats and neuropsychological studies in humans indicate that the safest pattern of use is to use the drug infrequently and in small amounts. Thus, those using the drug frequently or in large amounts for extended periods of time may be at a greater risk for neurological and neuropsychological harm.

Ecstasy was typically consumed in combination with other drugs. Alcohol, cannabis, and tobacco were commonly used in a typical session of ecstasy use and one quarter typically used methamphetamine powder when under the influence of ecstasy. Over two thirds of the sample typically consumed more than five standard drinks in combination with ecstasy, compared to less than half in 2003. Similarly, one third had typically consumed more than five standard drinks when coming down from ecstasy compared to one in five among the 2003 sample. This is noteworthy due to the increased risk of dehydration when alcohol is combined with ecstasy and the fact that larger quantities of alcohol can be consumed when under the influence of psychostimulants without experiencing immediate effects of intoxication. Though the harms associated with such use may still occur.

The reported median price for one tablet of ecstasy decreased from $50 in the 2003 study to $40 in the current study. Consumers considered this price to have remained stable, but key experts indicated a recent decrease in price. Participants typically paid for ecstasy through money earned through employment and ecstasy was typically purchased from friends or people selling for ecstasy profit (offsetting the cost of their own use of the drug). Ecstasy was considered to be very easy to obtain by both regular ecstasy users and key experts and availability had recently been either stable or had increased. Ecstasy was reported to be either high or fluctuating in purity and there were some indications that the purity of ecstasy had recently increased. There was a marked increase in the number of ecstasy tablets seized in 2003/04 in relation to previous years (over 1000 tablets compared to less than 100 in the previous year). This increase was also associated with a greater number of seizures, but largely related to two large seizures of the drug.

Few participants had recently accessed any health service in relation to ecstasy which is consistent with the small percentage of calls made to the Tasmanian Alcohol and Drug Information Service (ADIS) in relation to ecstasy over the last four years. Only four participants indicated that they had recently accessed a health service in relation to ecstasy use and few noted that they had overdosed (passed out/fallen into a coma) on ecstasy in the six months preceding the interview. Although the majority of participants did not experience significant symptoms of dependence in relation to their ecstasy use, one in ten, and a greater proportion of younger participants, experienced *some* symptoms of dependence toward the drug when assessed by the Severity of Dependence Scale. Whereas this scale does not have demonstrated reliability and validity in relation to ecstasy, these findings suggest that future research in the area of ecstasy dependence/addiction may be warranted.

Whereas the majority of participants reported experiencing few problems in relation to their ecstasy use, one third had recently experienced work/study or financial problems and one fifth had recently experienced social/relationship problems that were attributable, at least in part, to ecstasy use. Consistent with low levels of self reported criminal activity among the sample, few participants had experienced legal problems of any sort. The majority of drug-related problems experienced by regular ecstasy users

were relatively minor, but a small proportion experienced more serious problems such as having no money to pay for essentials such as food and rent and the ending of relationships. Females were more likely to report recent work/study problems in relation to ecstasy use. Social/relationship problems were generally associated with a greater frequency of drug use, binge drug use, and recent use of other drugs such as methamphetamine powder, crystal methamphetamine, cocaine, and ketamine.

Almost half of the participants had recently driven soon after (within an hour) of using ecstasy in the six months preceding the interview. Those that had driven under the influence of ecstasy had been using ecstasy for longer and had used the drug more frequently and in greater amounts compared to those that hadn't driven under the influence of ecstasy. They had also experimented with a greater number of drugs and were more likely to have recently used methamphetamine powder and to typically use methamphetamine powder when under the influence of ecstasy.

It would seem that there are clear indications of an expanding ecstasy market, the price of ecstasy has decreased and availability and purity of the drug have increased in comparison to the findings of the 2003 study, and Tasmania Police seizures of the drug have increased. There are also anecdotal reports of a broadening demographic of people consuming the drug locally including the use of ecstasy by younger people as well as an increase in the social acceptability of the drug. Ecstasy appears to have become enmeshed in drinking culture and is more likely to be used in combination with binge alcohol drinking. Whereas little harm was experienced in relation to ecstasy use among the current sample, with low reports of overdose, help seeking behaviour, symptoms of dependence and generally only minor work/study, financial, and social/relationship problems, small proportions of participants had experienced more serious harms and larger proportions had engaged in potentially risky behaviour such as polydrug use, binge drug use and driving under the influence.

Methamphetamine

Use of methamphetamine was common among the group of regular ecstasy users sampled in the present study. A large majority had ever used some form of methamphetamine and three quarters had used some form of methamphetamine in the preceding six months. The median frequency of methamphetamine use was six days in the preceding six months or approximately monthly. Two thirds had recently used methamphetamine powder, one fifth had recently used methamphetamine base, and less than one fifth had recently used crystal methamphetamine. Methamphetamine powder and base were typically taken orally and crystal methamphetamine was typically smoked. There was a substantially lower level of lifetime and recent use of crystal methamphetamine in comparison to the 2003 sample. Participants typically used small amounts of methamphetamine (0.1 of a gram) on a typical occasion of use and frequency of use for each form was less than once monthly.

Less respondents were able to confidently comment on the price, purity and availability of methamphetamine base and crystal methamphetamine in comparison to methamphetamine powder. The price for one point of methamphetamine powder was $40 which is less in comparison to the price of $50 reported by the 2003 sample. The median price for one point of methamphetamine base and crystal methamphetamine was $50, and prices had remained stable during the six months preceding the interview. The purity of methamphetamine powder was considered to be medium to high and the purity of methamphetamine base and crystal methamphetamine was considered to be high. The

purity of these forms was thought to have been either stable or fluctuating in the preceding six months. Methamphetamine powder was reported to be easy or very easy to obtain, and methamphetamine base and crystal methamphetamine were reported to be more difficult to obtain respectively. Whereas the availability of these forms was considered to be stable in the preceding six months, there are indications that the availability and use of crystal methamphetamine has decreased markedly in the last year.

Cocaine

One third of participants had ever used cocaine and one tenth had used cocaine during the six months preceding the interview, which is similar to the proportion that had used the drug among the 2003 sample. A greater proportion of males had ever used cocaine in comparison to females. Cocaine had been used relatively infrequently with a median frequency of two days in the preceding six months. Cocaine was typically snorted and a median of 0.1 to 0.5 grams used in a typical session. The price for a gram of cocaine ranged from $200 to $400 and this price had remained stable during the last six months. Reports on the purity of cocaine were varied and both regular ecstasy users and key experts considered the availability of cocaine to be low in Tasmania which is consistent with the situation reported in 2003.

Ketamine

Less than one fifth of the regular ecstasy users reported lifetime use of ketamine and only one in twenty had recently used ketamine. Ketamine was used on an average of two occasions in the preceding six months in relatively small amounts, indicating predominately experimental use by a small number of people in the current sample. Ketamine was typically swallowed or snorted and could be purchased in tablet, powder or liquid form. There was substantially less recent use of ketamine in comparison to the 2003 sample and fewer participants were able to confidently comment on the price, purity and availability of the drug. Reports on the price of ketamine were varied making it difficult to delineate clear trends. Ketamine was considered to be high in purity, with this level of purity regarded as remaining stable in recent months. Ketamine was typically considered to be difficult to obtain.

GHB

Less than one tenth of respondents had ever used GHB and only three participants had used GHB during the six months preceding the interview, compared to only six participants among the 2003 sample. There was no lifetime or recent use of GHB-like substances such as 1,4B or GBL among the current sample. GHB had typically been used orally and only on a total of three or less occasions in the six months prior to interview. As such, this indicates predominantly experimental use by few people. Few participants were able to confidently report on the price, purity or availability of GHB in Tasmania, though key experts generally indicated that the availability, use and popularity of the drug is relatively low.

LSD and other psychedelics

Half of the REU respondents had used LSD at some stage of their lives and one third had used LSD in the six months preceding the interview, which is slightly greater in comparison to the 2003 sample. A significantly greater proportion of males had ever and recently used LSD in comparison to the proportion of females. One tab or drop of liquid of LSD was taken orally in a typical session of use, and LSD had been used on a median of 2.5 days in the preceding six months which is greater than the frequency of use of 1 day among the 2003 sample. The median price for one tab of LSD was $20,

which has remained stable over the last two years. A greater proportion of users perceived that LSD was low in purity in comparison to 2003. There were mixed reports in regard to the availability of LSD, with it being considered as difficult to obtain by half of those that commented and easy to obtain by the other half.

Sixty percent of respondents had used psychedelic mushrooms and over one third had used mushrooms during the six months preceding the interview. A greater proportion of males had ever used mushrooms in comparison to females. Mushrooms had been used on a median of three days in the preceding six months or approximately every two months, and this was greater for males in comparison to females. Over half of the sample had used some form of psychedelic (either LSD or mushrooms) in the last six months.

Recent experimental use of hallucinogenic phenethylamines was also noted among some participants. A recent increase in the use of the research chemical 2C-I was noted by both REU and KEs, and five regular ecstasy users had recently but infrequently used the drug. Use of this drug was not noted among the 2003 participant sample. Despite the fact that the effects and risks of research or experimental chemicals are largely unknown, these drugs may be available and not necessarily illegal in all countries.

MDA

One fifth of participants had used MDA at some stage of their lives and less than one fifth had recently used MDA, which is slightly less in comparison to the proportion of participants in 2003. Use of MDA was more common among males in comparison to females. MDA had typically been used three times or less in the six months preceding the interview, with one capsule consumed orally in a typical session of use. Fewer respondents were able to confidently comment on the price, purity or availability of MDA in comparison to the 2003 sample. The median price for one MDA capsule was $40 which is $10 less in comparison to the price reported in 2003, but was considered to have remained stable in the six months preceding the interview. MDA purity was considered to be medium or high and stable over the preceding six months. While consumer reports on the availability of MDA were mixed, based on the pattern of MDA use and the comments of several KEs the local availability of MDA appears to be relatively low, and to have declined slightly since 2003.

Patterns of other drug use

A majority of participants had recently used alcohol, cannabis, and tobacco. Alcohol had been used on median of two days per week in the six months preceding the interview, or approximately twice a week. Cannabis had been used on a median of one day per week by the current participants compared to the median of two days per week amongst the participants interviewed in 2003. The frequency of this use was greater for males in comparison to females. Two thirds of the sample had typically used cannabis when coming down from ecstasy. Tobacco had recently been used by three quarters of the sample and over half of these participants had smoked tobacco on a daily basis in the last six months, and others had smoked tobacco less frequently. The proportion of daily smokers amongst the current sample of participants was greater in comparison to the proportion of regular smokers in the general population, possibly suggesting a greater prevalence of this risky health behaviour among this population.

Use of inhalants such as amyl nitrite and nitrous oxide were relatively common. One quarter of the sample had recently inhaled amyl nitrite which is a substantial reduction in comparison to the level of use reported among the 2003 cohort (43%). Several KEs indicated that the use of amyl nitrite had decreased in recent months. One third of participants had recently used nitrous oxide compared to one quarter among the 2003 sample. However, nitrous oxide had been used relatively infrequently with three quarters using less than monthly.

Almost one quarter of the sample had recently used benzodiazepines, on a median of one day per month in the last six months. Recent use of benzodiazepines was more common among females in comparison to males and was typically used by one tenth of the sample, when coming down from ecstasy. Only four participants had recently used antidepressants and there was less recent use of antidepressants among the sample in comparison to 2003. Antidepressants were typically taken either as prescribed or infrequently and not in conjunction with ecstasy.

The use of other pharmaceuticals and opioid drugs was relatively rare among the regular ecstasy users interviewed in the current study and those that had recently used these drugs had generally done so infrequently. Just over one tenth had recently used pharmaceutical stimulants (such as dexamphetamine or methylphenidate), with a median frequency of approximately once every two months. Only small proportions of the sample had recently used methadone, or 'other opiates' such as morphine, pethidine and opium and there was no recent use of heroin or buprenorphine.

Risk behaviour

Less than one in ten regular ecstasy users (9%) had recently used substances intravenously compared to one in 5 among the 2003 cohort. Methamphetamine was typically the first drug ever injected and the most common drug ever and recently injected. The sharing of needles was relatively rare; however, two out of five had recently shared other injecting equipment such as spoons, tourniquets, filters and water. All recent injecting drug users had obtained injecting equipment from NSP /NAP outlets during the preceding six months; however, one fifth reported some difficulty in obtaining needles during this time in terms of the accessibility of outlets.

Eighty percent of participants that had been sexually active in the preceding six months reported recent penetrative sex under the influence of ecstasy and related drugs during this time. Those that had recently binged on ecstasy and related drugs were more likely to have recently had sex under the influence of drugs. One in five used protection every time they had sex under the influence with a regular partner, and one in three used protection every time that they had sex with a casual partner when under the influence of ecstasy and related drugs. Whereas one third of regular ecstasy users (33%) had been for a sexual health check up in the last year, one half (53%) had never had a sexual health check up. Two thirds of the sample had not ever been tested for hepatitis C or HIV.

Over half of the participants interviewed in the present study had driven soon after using drugs other than alcohol in the six months preceding the interview, typically, cannabis, ecstasy, and methamphetamine powder. A greater proportion of males had recently driven under the influence of drugs in comparison to females. Those who had driven under the influence of ecstasy and related drugs had typically used ecstasy

more frequently and in greater amounts in the preceding six months compared to those that had not. Those that had recently binged on ecstasy and related drugs were more likely to have recently had driven under the influence of drugs.

One third of participants had recently binged on or used ecstasy and related drugs for more than 48 hours without sleep. Those that had recently binged had generally been using ecstasy for a longer period of time, had recently used ecstasy more frequently, had experimented with a greater number of drugs, and were more likely to have recently used methamphetamine. As mentioned above, those that had recently binged were also more likely to have recently had penetrative sex under the influence of drugs and to have recently driven under the influence of drugs. However, it is not possible to clearly dissociate the relationship between these risk behaviours and the associated drug use factors in the present report.

Health related Issues

Less than one fifth of the sample had overdosed (passed out or fallen into a coma) on any drug in the six months preceding the interview, and alcohol was the main drug involved in thirteen out of these eighteen cases, and had been used in all but one of these cases. Ecstasy was the main drug attributed as underlying the experience of overdose in only two cases, and had been used in a further four cases that were attributed to alcohol. With the exception of alcohol, all overdoses involved more than one drug. Those who had recently overdosed were more likely to be injecting drug users and were more likely to have recently used other opiates and antidepressants.

One tenth of the sample had accessed health services in relation to drug use in the preceding six months. Only four participants had accessed health services in relation to ecstasy use. Those that had recently accessed health services had used a greater number of drug types in their lifetime ever and in the six months preceding the interview, than those that did not.

Whereas approximately half of the participants interviewed had actively sought information about the effects or risks associated with different drug types and 'batches' of ecstasy pills, half of the participants only sometimes or never found out about these effects or risks. Friends and websites were the most commonly accessed information resources followed by information pamphlets and other people or dealers. Close to two thirds of the regular ecstasy users (64%) indicated that they had 'sometimes' bought a drug and it turned out to have different effects than they expected in the last six months. Regular ecstasy users indicated that resources such as a local website, information pamphlets, and testing kits would be most useful harm reduction options for either themselves or the local ecstasy and related drug user community. Posters and venue outreach at organised events were also considered to be useful resources.

Criminal and Police Activity

With the exception of dealing drugs, only one in twenty participants had committed criminal offences in the six months preceding the interview, and all of these related to infrequent property crime offences (such as shoplifting). Similarly, key experts generally indicated that there was little or no crime among the group of regular ecstasy users that they were familiar with. One sixth of the sample had recently sold drugs for cash profit compared to one quarter of the 2003 cohort. Over half of those

that had sold drugs had done so less than monthly. Less than one tenth of the sample had funded their own ecstasy use through selling drugs, compared one fifth among the 2003 sample. One third of regular ecstasy users and several key experts perceived that there had been an increase in police activity towards ecstasy users in the last six months. The perceived increase in activity was generally related to covert surveillance, particularly at events and venues.

Conclusions

The participants in the current study were generally young, employed or studying and not currently in drug treatment or in legal trouble. While ecstasy was the preferred drug of most, polydrug use was the norm and the use of alcohol, cannabis, tobacco and methamphetamine common. The proportion that reported binge alcohol consumption in combination with ecstasy is concerning and had increased. Those using ecstasy frequently or in large amounts for extended periods of time may be at a greater risk. The safest pattern of use may be to use the drug infrequently and in small amounts to minimise the risk of neurological and neuropsychological harm, and this was perceived to be one of the biggest risks associated with the use of ecstasy for many participants. Those that had used ecstasy more frequently and in larger amounts and had recently used a greater number of drug types were more likely to have recently engaged in binge drug use which was associated with other risk behaviours such as driving under the influence of drugs and sexual risk behaviour, possibly indicating a relationship between these factors. The level of harm experienced by the majority of participants was relatively low, with few recent overdose episodes, few people accessing health services in relation to drug use, only relatively minor work/study, financial, and social problems experienced by most users, and most not experiencing significant symptoms of dependence in relation to either ecstasy or methamphetamine use. The use of alcohol and polydrug use were associated factors for the majority of those that had recently overdosed on any drug. Half of the participants' had actively sought harm reduction information about the risks and effects of the drugs that they chose to use. These messages were not necessarily reaching other participants despite the fact that most of the people were receptive, and indicated that harm reduction information would be useful both to themselves and the ecstasy and related drug using community.

Implications

It is important to remember that the aim of the PDI is to investigate the patterns of drug use, drug markets and associated risks and harms among a sentinel group of participants that use ecstasy on a regular basis, as such, this population is not necessarily representative of all users of ecstasy and related drugs and the prevalence of ecstasy and other drug use can not be directly inferred. However, the study is designed to identify emerging trends and important issues and the findings of the 2004 PDI suggests the following areas for future monitoring, research and consideration in policy:

- The decreased price and increased purity and availability of ecstasy in Hobart indicates an expanding and emerging market and qualitative comments of both regular ecstasy users and key experts indicate that the use of ecstasy may have become more widespread and socially acceptable. As such, further monitoring of emerging trends and a proactive response in terms of harm reduction strategies is clearly warranted.

- The high level of coincident binge alcohol and ecstasy use was previously identified as a key issue from the 2003 study and an even greater and substantial proportion of participants were engaging in this practice among the 2004 cohort. Larger quantities of

alcohol can be consumed when under the influence of psychostimulants without necessarily experiencing the immediate effects of intoxication; however, the harms associated with this use still occur. Further, most of the overdose episodes reported by participants' involved alcohol and/or polydrug use. Further research into the risks of concomitant binge drinking and ecstasy use is clearly warranted as well as an improvement of the awareness of the risks of this behaviour and polydrug use in general.

- Over half of participants reported driving under the influence of ecstasy and related drugs indicating the need for future monitoring and research in this area. Specifically, research into the actual degree of risk associated with driving under the influence of these drugs as well as factors associated with the decision to drive and the demographics/characteristics of these individuals may be particularly important, so that they may be better targeted for education/awareness campaigns.

- Whereas the use and availability of the more potent crystal methamphetamine form seems to have decreased and the use of potentially harmful substances such as GHB is currently relatively low in Tasmania, it is imperative that the use and availability of such drugs is continually monitored in future years in order to identify any emerging trends in a timely fashion. The recent increased use of research chemicals, in particular 2C-I, should be continually monitored and efforts made to increase the awareness of the 'largely unknown' risks associated with the use of such chemicals. It is also important that health and emergency services and venue and event staff are informed of such emerging trends in illicit drug markets.

- Although half of the regular ecstasy users interviewed in the current study were actively seeking harm reduction information in relation to the substances that they chose to use, these messages were not necessarily reaching other users. Participants generally indicated that access to resources such as websites, information pamphlets, testing kits, posters and venue outreach would benefit either themselves or the local ecstasy and related drug using community.

- Information on the effects or risks of ecstasy and related drugs were typically sought from peers or peer run organisations. As such it is likely harm reduction programs will receive maximum impact if delivered through peers or peer-based organisations and mediums appropriate to the target group such as internet sites and outreach workers at dance and related events. Further, as REU do not typically come into contact with traditional health services in relation to their drug use, harm reduction information needs to be easily accessible and therefore either web based or implemented at locations that are frequented by users.

- Posters may be particularly useful for providing simple and immediate reminders, particularly in relation to risk behaviours such as binge drinking, safe sex, driving under the influence, and acute risks such as dehydration and overheating. Similarly the provision of sharps containers and condoms may also help to reduce risky behaviours among this population. However, these practices are most likely to be adopted and implemented effectively if a non-selective minimum standard for providing harm reduction information and equipment was adopted in nightclubs and other entertainment venues.

- While there are some limitations to the use of commercially available ecstasy 'testing kits', currently there is often very little information available to consumers in regard to the substances contained within the tablets that are sold on the local market, and two thirds of the participants in the current study indicated that they had sometimes bought a drug and it turned out to have different effects than expected. Limitations aside, use of these kits may allow consumers to be more informed about the tablets that they choose to use. Testing kits can currently be purchased over the internet but are currently not available from any local source. There may be some benefit from a peer-based or non-government organisation making these available locally on a not-for-profit or cost-recovery basis, or facilitating provision of testing at dance and related events. The use and/or supply of testing kits under these circumstances would also allow for the limitations of these kits to be conveyed more thoroughly and effectively to users.

- Considering that ecstasy and related drugs seem to have become enmeshed in drinking culture and the fact that several REUs and KEs noted an increase in the social acceptance of ecstasy and in the number of younger people using the drug, cohesive education programs within schools and in the media may allow younger users to make informed and safer choices in relation to drug use. Education programs are likely to be most effective if they peer delivered, accurate, up to date and explore issues that are of local relevance, to maximise the credibility of the information provided. By contrast, illicit drug education programs based around 'fear arousal' have been shown to be ineffective (West & O'Neal, 2004; Skiba, Monroe & Wodarski, 2004), and these, and associated sensationalised reporting of drug use in the media, have the real potential to undermine the credibility of this and other research, as well as detracting from the potential for successful harm reduction to occur from such endeavours.

- Future harm reduction efforts may be greatly benefited by further research among different local populations of ecstasy and related drug users or local niche markets. For example, events showcasing different genres of music and factors such as event location and size are anecdotally reported to attract different groups of users with distinct patterns of drug use, risk activity, and associated harms. Future investigation into the patterns of use, risk, and harm among these niche markets may allow for harm reduction messages to be tailored and better targeted to appropriate groups of users.

- Web-based information resources were commonly used by participants to access information about the effects and risks of ecstasy and related drugs and a large proportion of users considered a local website to be a useful information resource. Alternatively, efforts could be made to increase access or local activity by consumers on existing web-based resources, particularly in relation to fluctuations in ecstasy markets such as impurities or dangerous substances in the batches of ecstasy pills available locally. The allocation of a peer-based group to facilitate and administer such activity may decrease security and reliability concerns among users.

- The use of psychedelics such as LSD and mushrooms as well as the experimental use of other hallucinogenic phenethylamines was relatively common among the participants interviewed over the last two years of the study. As such, it is likely that users of ecstasy and related drugs will come into contact these drug types and thus information regarding the differential effects and risks of these drugs should be conveyed to users and emerging trends continually identified and monitored.

- Although the majority of participants did not experience significant symptoms of dependence in relation to ecstasy, there was evidence that a small proportion of participants experienced *some* symptoms of dependence. These findings indicate that future research into the issue of dependence in regard to this drug may be warranted.

- There was some evidence for an association between binge use of drugs and risk behaviours such as driving or having sex under the influence of ecstasy and related drugs, particularly among more experienced drug users. Given that it is not possible to clearly dissociate these relationships in the present study, future research into the factors associated with risk behaviours is clearly required.

- Whereas the sharing of needles was relatively uncommon among the small group of injecting drug users interviewed in the current study, the sharing of injecting equipment was more common. Efforts should be made to increase the awareness of the risks associated this practice amongst the local REU population. Additionally, given the difficulties some participants reported in regard to the access of sterile injecting equipment, steps to increase the awareness of the locations, stock provided, and opening hours of local NAP outlets may be appropriate.

- An anecdotal increase in the number of people shelving/shafting ecstasy was noted among both participants and key experts. This route of administration is potentially more harmful than ingestion as detoxification by the liver is less for substances absorbed in the large intestine.

1.0 INTRODUCTION

The Party Drug Initiative (PDI) is a companion project to the Illicit Drug Reporting System (IDRS). The IDRS has been running in every Australian state and territory annually since 1999, following successful trials in 1996 and 1997. The IDRS is jointly funded by the Australian Government Department of Health and Ageing and the National Drug Law Enforcement Research Fund and was designed to monitor trends and emerging issues in illicit drug use in order to provide a timely early warning system for health and law enforcement services, to provide direction for subsequent further research and to inform policy where appropriate. The IDRS focuses on drugs such as methamphetamine, opioids, cannabis and cocaine and issues that pertain particularly to the intravenous use of drugs in Australia. The methodology of the IDRS involves the triangulation of three data sources including, the survey of people who regularly inject illicit drugs, survey of 'key experts' (KE) who have regular contact with injecting drug users and examination of 'indicator data' or available existing data sources.

The PDI uses the same proven triangulated methodology as the IDRS, bur aims to examine emerging trends and issues in the use, price, purity and availability of 'ecstasy and related drugs' (ERD) in Australia. For the purpose of the present study, ERDs are defined as drugs commonly used recreationally in the context of venues such as nightclubs and dance or music related events. These drugs primarily include ecstasy, methamphetamine, cocaine, LSD, ketamine, MDA, and GHB. The feasibility of the PDI was assessed with a two state trial funded by NDLERF in 2000 (Breen, Topp, & Longo, 2002). It was clear from the feasibility study that the existing IDRS did not adequately capture the emerging population of ecstasy and related drug users in Australia, and NDLERF provided additional funding for a two year project in every Australian state and territory. The present report is based on data collected in Tasmania during the second year of project (2004) and includes some data from the first year of the project (2003) which was published in full by Bruno and McLean in 2004.

1.1 Study aims

The aims of the 2004 PDI were to describe the characteristics and patterns of ecstasy and other drug use among the sample of regular ecstasy users in Hobart and surrounding areas in 2004; to examine and identify trends in the price, purity, and availability of ecstasy and related drugs in Hobart; to examine participants perceptions of the risks and benefits of ecstasy use; to examine the extent of risk behaviours among the group of regular ecstasy users (injecting drug use, overdose, driving risk, sexual risk); to examine other problems that may occur in relation to ecstasy and related drug use (occupational, social, financial, legal); and to investigate emerging trends in the local ecstasy and related drug market that may warrant further investigation or monitoring. A further aim is to examine, where possible, the current data in relation to the data collected in 2003 (Bruno & McLean, 2004) to identify any emerging trends among regular ecstasy and related drug users in Hobart over time.

2.0 METHODS

The PDI uses a convergent validity methodology, such that data from three different sources are triangulated. The three components include a survey of regular ecstasy users in Hobart, a survey of key experts who have regular contact with regular ecstasy users in Hobart through the nature of their work or role in the community, and an examination of existing data sources that pertain to ecstasy and related drugs in Tasmania. Focussing on convergent trends among the three data sources allows validity of each data set to be established. Specific information about the three data sources used in the present study is outlined below.

2.1 Survey of regular ecstasy users (REU)

2.1.1 Recruitment

One hundred regular ecstasy users were interviewed using a structured face-to-face interview between May and July 2004. Interviews were conducted at locations such as cafes and bars, the University of Tasmania, and private residences such as participants' and interviewers homes where appropriate. Inclusion criteria for the study included at least monthly use of ecstasy in the last six months and having resided in the greater Hobart area for at least twelve months prior to the interview. Participants were recruited through posters and flyers distributed in the Hobart area at various locations (cafes, bars, nightclubs, clothing stores, music stores, university, youth services, hairdressers), internet forums (www.pillreports.com, www.freshdisko.com), the Tasmanian University Bulletin, and through snowball methods (word of mouth and recruitment through friends and associates).

2.1.2 Procedure

Participants contacted the researchers through voicemail, email or SMS to leave their contact details and were subsequently contacted by one of the interviewers. Upon initial contact, participants were asked questions to establish their eligibility for the study and were provided with information about the aims and rationale for the study, the interview content and process, and the confidentiality and anonymity of the information that they may provide. Following informal consent to participate, interviewers arranged to meet participants at a mutually acceptable time and place. Prior to commencing the interview, participants were given further information about the study through a written information sheet describing the study and the interview content and process in more detail. Participants were also informed that the information they gave was strictly confidential, that they could not be personally identified in any way, and that they were free to withdraw at any time without prejudice or decline to answer any questions. Participants signed a consent form to indicate that they had read and understood the information given to them and that any questions had been answered to their satisfaction. Interviews generally took between 45 to 60 minutes to complete and participants were reimbursed a sum of $30 for their time and out of pocket expenses.

2.1.3 Measures

The structured interview focussed on the six months preceding the interview and assessed information in regard to demographic characteristics, patterns of ecstasy and other drug use including frequency, quantity and routes of administration; the price, purity, and availability of different drugs; the perceived benefits and risks associated with ecstasy use; symptoms of dependence; risk behaviours such as injecting drug use, overdose, driving, and safe sex; other problems associated with ecstasy use such as work/study, financial, social and legal problems; self reported criminal activity; and general trends in party drug markets, such as use appearance of new drug types and perceptions of police activity.

2.1.4 Data analysis

Differences between the means of continuous normally distributed variables were analysed using t-tests. The non parametric Mann-Whitney U test was used to analyse differences on continuous variables that did not follow a normal distribution. Chi-square tests were used to analyse categorical variables. All statistical analyses were conducted using SPSS 12.0.1 for Windows (SPSS Inc., 2003).

2.2 Survey of key experts (KE)

Key experts who had regular contact with a range of ecstasy users in the six months preceding the interview were eligible to participate in the study. Twenty key experts participated in semi-structured face-to-face interviews at either their place of work, private residences, or at locations such as coffee shops or bars between May and August 2004. The majority of KEs had regular contact with ecstasy users through both work and social/personal contact (n=14), others though only work (n=4) or personal/social (n=2) contact. Key experts had contact with regular ecstasy users on a median of 4.5 days a week during the preceding six months, ranging from once a week to daily. Most KEs (n=12) had meaningful contact with over fifty regular ecstasy users during this time, with all but one having contact with more than ten users. All KEs indicated that the information that they provided was sourced through contact with users (n=20) as well as smaller proportions deriving information through observation (n=14), talking with colleagues (n=11) and the media (n=2).

Key experts included youth workers (n=3), law enforcement personnel (n=3), venue/event owners or managers (n=3), venue/event bar staff (n=3), DJs (n=2), party promoters (n=2) and single KEs who had regular contact with ecstasy users through their roles as a drug and alcohol counsellor, harm minimisation officer, government music industry worker and ecstasy provider. Several key experts had also had contact with regular ecstasy users through their secondary role as a party promoter (n=4), DJ (n=2), ecstasy provider, outreach worker, and band member (all n=1). Sixteen of the key experts were male and four were female. Nine KEs indicated that they had regular contact with youth populations and a single KE had regular contact with HIV positive, and gay/lesbian/bisexual/transgender populations.

The semi structured key expert interview included sections on demographic characteristics, drug use patterns and price/purity/availability of ecstasy and other drugs, criminal behaviour and health issues and was particularly focussed on indicating any recent changes in these areas. The majority of interviews took approximately 60 minutes

to complete and ranged from 45 to 90 minutes. Questions were generally open ended and interviewers wrote responses in verbatim of the time of the interview. Interviews were later transcribed in full and recurring themes were identified using Excel and are included in the text of the report. Information from single KEs was also included in the report where deemed reliable by the interviewer and/or pertinent to the explanation of particular trends. Closed-ended questions were also asked in relation to the price/purity/availability of ecstasy and analysed using SPSS 12.0.1 for Windows (SPSS Inc., 2003).

2.3 Other indicators

Data from existing sources such as survey, health and law enforcement were collated to provide contextual information and to complement and validate the data obtained from the survey of both regular ecstasy users and key experts. The pilot study for the IDRS (Hando et al., 1997) recommended that such data should be available at least annually; include 50 or more cases; provide brief details of illicit drug use; be collected in the main study site (Hobart or Tasmania for the current study); and include details on the main illicit drugs under investigation. However, due to the relatively small size of the illicit drug using population in Tasmania (in comparison to other jurisdictions involved in the PDI), and a paucity of available data (several key services are in the process of adopting computerised or more systematic information storage and retrieval systems), the above recommendations have been used as a guide only. Indicators not meeting the above criteria should be interpreted with due caution, and attention is drawn to relevant data limitations in the text.

Data sources that fulfil the majority of these criteria and have been included in this report are as follows:

National Drug Strategy Household Surveys (1998, 2001)
The National Drug Strategy Household Survey aimed to determine the prevalence of the use of illicit drugs such as cannabis, methamphetamine, hallucinogens, cocaine, and ecstasy/designer drugs among the general community. Participants were English speaking individuals, over the age of fourteen, who lived in private residences in Tasmania during 1998 (n=1,031) and 2001 (n=1,349). Participants were asked to indicate whether they had used each type of illicit drug at some stage in their life or during the 12 months preceding the interview.

Telephone Advisory Services Data
The Tasmanian Alcohol and Drug Information Service (ADIS) is a 24 hour confidential drug and alcohol counselling, information and referral service. This service has been administered by Turning Point Alcohol and Drug Centre in Victoria since May 2000. Data from each call has been systematically recorded since this time and the numbers of calls in relation to each drug type are reported in the text of report where appropriate.

Police Data
Information on drug seizures, charges, price and purity were obtained from Australian Illicit Drug Reports (1997/98, 1998/99, 1999/00, 2000/01, 2001/02) produced by the Australian Bureau of Criminal Intelligence (ABCI) and Illicit Drug Data Reports (2002/03, 2003/04) provided by the Australian Crime Commission (ACC). The Tasmanian data in these reports is provided by Tasmania Police State Intelligence

Services. The ABCI and ACC reports do not report seizure and arrest data separately for drugs such as ecstasy. Therefore, where possible this data has been obtained directly from Tasmania Police State Intelligence Services and is reported in the text of the report. It should also be noted illicit drug samples are only analysed in Tasmania if the content of the sample is contested, thus the number of samples analysed for purity are often quite low.

Public Hospital Admission Data – Australian Institute of Health and Welfare

The Australian Institute of Health and Welfare has provided hospital morbidity data in relation to drug use from the year 1999/00 to 2002/03. Diagnoses were coded based on the International Classification of Diseases (ICD) 10, second edition. A 'principal diagnosis' refers to the instance where it is established upon examination that the drug was principally responsible for the patient's episode in hospital. An 'additional diagnosis' refers to the case where the condition or complaint is either co-morbid with the principal diagnosis or arises during the course of the episode in hospital. It is important to note that data from Tasmania's only public detoxification centre was included from June 2002 onwards. Hospital admissions are reported separately for amphetamines, opioids, cannabis, and alcohol and are included in the text of the report where appropriate.

3.0 OVERVIEW OF REGULAR ECSTASY USERS (REU)

3.1 Demographic characteristics of the REU sample

Table 1 displays the demographic characteristics of the sample of 100 regular ecstasy users interviewed in the study. Three out five participants were male (61%). The mean age of the sample was 23 years (range 18-32 years, *SD*=3.0 yrs), and there was no significant difference between the mean age of males (23.3 years) and females (22.6 years). All participants spoke English as their main language, and a minority (2%) were of Aboriginal and/or Torres Strait Island (ATSI) descent. The majority (93%) of participants nominated their sexual identity as heterosexual, although gay males (2%) and bisexuals (5%) were also represented. Participants resided in fifteen different suburbs across the greater Hobart area. A great majority lived in the inner Hobart suburbs (87%), and smaller proportions lived in the eastern shore (11%) and northern suburb areas (2%). The majority lived in their own (owned or rented) accommodation (82%) and the remainder lived in either their parent's or family's home (17%) or a boarding house/hostel (1%).

The mean number of years of school education completed by participants was 12 (range 10-12 years, *SD* = 0.40 years), and the majority of participants (88%) had completed year 12. Over half of the sample (56%) had completed courses after school, over a third had completed a university degree (35%) and one fifth (21%) had completed a trade or technical qualification. Over one third of the participants (37%) were currently full-time students, and one quarter was currently employed on either a full time (28%), or part time/casual (26%) basis. These patterns are generally similar to those reported amongst the 2003 cohort. However, only 8% of the sample was currently unemployed, compared to 16% among the 2003 sample. Only 1% of the sample was currently receiving drug treatment in the form of methadone maintenance compared to 10% among the 2003 sample. Just one participant had received a custodial sentence for a previous criminal conviction. Over one tenth of the regular ecstasy users interviewed in 2004 (14%) had also participated in the study in 2003, and a small proportion (2%) had previously participated in the IDRS IDU study in 2002.

Key expert descriptions of the ecstasy users with whom they had regular recent contact were consistent with the characteristics of the REU sample. Key experts described groups as being 60-70% male (n=10) or with an even gender balance (n=9). Key experts estimated that the age of these groups ranged between 12 and 50 years, with most being in their late teens or early to mid 20s. Most key experts described these populations as being from English-speaking backgrounds, and estimated the representation of gay and lesbian individuals to be approximately 10-20% (n=8). Several key experts noted contact with individuals that lived in a wide range of suburbs (n=5), or predominately inner Hobart city suburbs (n=4). Due to the nature of their role some key experts had regular contact with people from particular areas in Hobart including sandy bay (n=2), northern suburbs (n=1), and the eastern shore (n=1).

Table 1. Demographic characteristics of REU sample

Variable	2003 Sample (n=100)	2004 Sample (n=100)
Mean age (years)	24 (range 18-45)	23 (range 18-32)
Sex (% male)	61	61
Ethnicity		
English speaking background (%)	100	100
Aboriginal or Torres Strait Islander (%)	6	2
Accommodation		
Own accommodation (includes renting) (%)	75	82
Live with parents / family (%)	22	17
Boarding house / hostel (%)	2	1
Refuge (%)	1	0
Location of residence		
Inner Hobart suburbs (%)	70	87
Northern suburbs (%)	12	2
Eastern shore (%)	7	11
Kingston area (%)	6	0
Sorrell (%)	4	1
No fixed address (%)	1	0
Education		
Mean years of school education	12 (range 8-12)	12 (range 10-12)
Trade / technical qualifications (%)	23	21
University qualifications (%)	21	35
Employment		
Full-time employment (%)	27	28
Part-time / casual employment (%)	17	26
Full-time student (%)	40	37
Part-time student (%)	0	1
Unemployed (%)	16	8
Sexual identity		
Heterosexual (%)	85	93
Gay male (%)	2	2
Bisexual (%)	13	5
Currently receiving drug treatment (%)	10	1
Prison history (%)	3	1

Source: PDI Regular ecstasy user interviews

Key experts noted that the majority of ecstasy users that they were familiar with were well educated and either employed or currently studying at university. One KE noted that the group that they had regular contact with were generally unemployed, probably reflecting the nature of their role within government health services rather than being characteristic of regular ecstasy users per se. Three KEs estimated that only a small proportion of the groups that they were familiar with (1%-5%) were currently in drug treatment, however, two KEs with roles in health services noted that a higher proportion of the group were currently in drug treatment. Four KEs noted that a small proportion of the groups that they were familiar with had come into contact with the criminal justice system.

3.2 Drug use history and current drug use

Ecstasy was the preferred or favourite drug for over half of the participants (58%). Smaller proportions preferred cannabis (12%), alcohol (9%), and cocaine (8%) followed by methamphetamine powder (4%), tobacco (2%), methamphetamine base (2%), LSD (2%), heroin (1%), psychedelic mushrooms (1%) and dexamphetamine (1%). The sample of regular ecstasy users were asked about the types of drugs (out of 19 drug types) that they had used in their lifetime or more recently. Participants had used a median of 8 drug types (range 2-18) at some stage of their life and a median of 6 drug types (range 1-14) in the six months preceding the interview, compared to 9 and 7 drug types respectively among the 2003 cohort. Less than one fifth (15%) of the sample had injected any drug at some stage of their life, which is fewer in comparison to the 2003 sample (26%). One tenth of the sample (9%) had injected a drug in the six months preceding the interview, which is fewer in comparison to the 2003 sample (22%).

Table 2. Lifetime and recent polydrug use of REU

Variable	2003 Sample (n=100)	2004 Sample (n=100)
Median drug types ever used	9 (4-18)	8 (2-18)
Median drug types used last 6 mths	7 (3-12)	6 (1-14)
Ever inject any drug (%)	26	15
Injected any drug in last 6 mths (%)	22	9
Alcohol		
ever used (%)	100	100
Used last 6 months (%)	98	98
Cannabis		
ever used (%)	100	98
Used last 6 months (%)	90	91
Tobacco		
ever used (%)	96	89
Used last 6 months (%)	81	77
Methamphetamine powder (Speed)		
ever used (%)	90	82
Used last 6 months (%)	67	68
Methamphetamine base (Base)		
ever used (%)	36	32
Used last 6 months (%)	24	20
Crystal methamphetamine (Crystal)		
ever used (%)	58	36
Used last 6 months (%)	52	16
Pharmaceutical Stimulants		
ever used (%)	n.a.	39
Used last 6 months (%)	n.a.	14
Cocaine		
ever used (%)	44	32
Used last 6 months (%)	7	10
LSD		
ever used (%)	62	51
Used last 6 months (%)	24	32

Source: PDI Regular ecstasy user interviews

Table 2. Lifetime and recent polydrug use of REU (continued)

Variable	2003 sample n=100	2004 sample n=100
MDA		
ever used (%)	32	20
Used last 6 months (%)	21	15
Ketamine		
ever used (%)	38	23
Used last 6 months (%)	24	5
GHB		
ever used (%)	10	7
Used last 6 months (%)	6	3
1,4 B		
ever used (%)	2	-
Used last 6 months (%)	1	-
GBL		
ever used (%)	-	-
Used last 6 months (%)	-	-
Amyl nitrite		
ever used (%)	78	52
Used last 6 months (%)	43	23
Nitrous oxide		
ever used (%)	47	57
Used last 6 months (%)	25	34
Benzodiazepines		
ever used (%)	52	34
Used last 6 months (%)	35	23
Anti-depressants		
ever used (%)	32	14
Used last 6 months (%)	14	4
Heroin		
ever used (%)	20	4
Used last 6 months (%)	6	0
Methadone		
ever used (%)	14	2
Used last 6 months (%)	13	2
Buprenorphine		
ever used (%)	5	-
Used last 6 months (%)	3	-
Other opiates		
ever used (%)	35	19
Used last 6 months (%)	13	8
Psychedelic Mushrooms		
ever used (%)	54	60
Used last 6 months (%)	38	41

Source: PDI Regular ecstasy user interviews

A majority of the regular ecstasy users interviewed had used alcohol (100%), cannabis (98%), tobacco (89%) and methamphetamine powder (82%) at some stage of their lives. Over half of the sample had ever used psychedelic mushrooms (60%), LSD (51%), nitrous oxide (57%) or amyl nitrite (52%). One third of the sample had ever used pharmaceutical stimulants (39%) crystal methamphetamine (36%), methamphetamine base (32%), cocaine (32%) and benzodiazepines (34%). One fifth or less had ever used MDA (20%), ketamine (18%) and other opiates (19%) and smaller proportions had ever

used anti-depressants (14%), GHB (7%), heroin (4%), methadone (2%). There were no reports of lifetime use of buprenorphine, GBL or 1,4 B.

Compared to the 2003 sample there was substantially less lifetime use of crystal methamphetamine (58% vs. 36%), ketamine (38% vs. 18%), and amyl nitrite (78% vs. 52%) among the sample of regular ecstasy users interviewed in 2004. There was also a slightly less lifetime use of cocaine (44% vs. 32%), MDA (32% vs. 20%), benzodiazepines (52% vs. 34%), antidepressants (32% vs. 14%), LSD (62% vs. 51%), heroin (20% vs. 4%), methadone (14% vs. 2%) and other opiates (35% vs. 19%). There was a slightly greater lifetime use of nitrous oxide (47% vs. 57%) and psychedelic mushrooms (54% vs. 60%).

In the six months preceding the interview, the majority of regular ecstasy users had used alcohol (98%), and cannabis (91%), three quarters had used tobacco (77%), and two thirds had used methamphetamine powder (68%). One third of the sample or more had used psychedelic mushrooms (41%), nitrous oxide (34%) and LSD (32%). Between one fifth and one tenth of the sample had recently used benzodiazepines (23%), methamphetamine base (20%), amyl nitrite (18%), crystal methamphetamine (16%), MDA (15%), pharmaceutical stimulants (14%) and cocaine (10%). Smaller proportions had used other opiates (8%), ketamine (5%), GHB (3%), antidepressants (4%) and methadone (2%). None of the participants had recently used heroin.

Compared to the 2003 sample there was substantially less recent use of crystal methamphetamine (52% vs. 16%), ketamine (24% vs. 5%), and amyl nitrite (43% vs. 23%). Slightly fewer people had recently used benzodiazepines (35% vs. 23%), antidepressants (14% vs. 4%), methadone (13% vs. 2%), heroin (6% vs. 0%) and MDA (21% vs. 15%), and slightly more participants had recently used LSD (24% vs. 32%) and nitrous oxide (25% vs. 34%). However, similar proportions had recently used alcohol (98% vs. 98%), cannabis (91% vs. 90%), tobacco (81% vs. 77%), methamphetamine powder (68% vs. 67%), cocaine (7% vs. 10%), methamphetamine base (24% vs. 20%), GHB (6% vs. 3%), other opiates (13% vs. 8%) and psychedelic mushrooms (41% vs. 38%).

In summary, there were greater levels of education and employment, and lower levels of injecting drug use, and in the number of drug types ever and recently used, in the current sample in comparison to that examined in 2003. Additionally, while the frequency of use of ecstasy was lower in the current participants than those interviewed in 2003, the average amount of the drug consumed in a given session of use was greater (see Section 4.1). These sampling differences are important considerations when making comparisons across these cohorts.

3.3 Summary of demographic and polydrug use trends in REU

- The sample of 100 regular ecstasy users tended to be in their early to mid twenties, with ages ranging form 18 to 32 years. There were slightly more males than females (61%).
- Most of the participants were well educated, with the majority having completed year 12 and one half having completed a tertiary qualification. Two thirds were employed either fulltime or part-time/casual and one third were full time students.
- Few participants had come into contact with the criminal justice system or drug treatment agencies.
- There was less unemployment (8% vs. 16%), recent injecting drug use (9% vs. 22%) and current drug treatment (1% vs. 10%) amongst the sample in comparison to 2003 possibly reflecting less overlap between the IDU and REU samples in 2004. Polydrug use was the norm among regular ecstasy users, with most having used a range of drugs. Recent use of alcohol, cannabis, and methamphetamine powder was common and over one third had recently used psychedelic mushrooms, LSD and nitrous oxide.
- Participants in the current cohort reported using slightly fewer drug types during their life (9 vs. 8) and during the six months preceding the interview (6 vs. 7) in comparison to the 2003 sample.
- In comparison to the 2003 sample there was substantially less recent use of crystal methamphetamine (52% vs. 16%), ketamine (24% vs. 5%), and amyl nitrite (43% vs. 23%) among the current sample. Slightly fewer participants reported recent use of benzodiazepines, antidepressants, methadone, heroin and MDA and slightly more reported recent use of LSD and nitrous oxide.
- Proportions reporting recent use of cannabis, alcohol, tobacco, methamphetamine powder, methamphetamine base, cocaine, GHB, other opiates, and psychedelic mushrooms were similar among the two cohorts.

4.0 ECSTASY

The mean age of first ecstasy use was 20 years (range 15-32, *SD*=2.9). There was no significant difference between the mean age of first use for females (19.7 years, *SD*=2.3) and for males (19.6 years, *SD*=3.3). The median age at which participants had first started to use ecstasy on a regular (at least monthly) basis was also 20 years (range 15-32, *SD*=3.1) and there were no significant sex differences. Ecstasy had been used by this group for a median of 3 years (range 0-12 years), and three quarters of the sample (76%) had been using ecstasy for two years or more. Over a half of the regular ecstasy users (58%) stated that ecstasy was their drug of choice. All of the respondents had swallowed ecstasy and three quarters (77%) had snorted ecstasy at some stage of their lives. One in twenty people had ever injected (6%), smoked (4%), or shelved/shafted (referring to vaginal or anal administration: 4%) the drug. For the six people who had ever injected ecstasy (four male and two female participants), the median age of first injection was 19 years (range 17-22 years)

4.1 Ecstasy use among REU

All of the regular ecstasy users had swallowed ecstasy and three quarters (73%) had snorted the drug in the six months preceding the interview. A small proportion (2%) had shelved or shafted and one male participant (1%) had injected ecstasy during this time, which is 10% less in comparison to the 2003 sample (11%). Participants were asked how they had 'mainly' used ecstasy (more than half the time) in the six months preceding the interview. The majority of ecstasy users had mainly swallowed ecstasy (94%) and a small proportion (6%) had mainly snorted ecstasy in the last six months. None of the regular ecstasy users reported that they mainly injected ecstasy, compared to 5% among the 2003 cohort.

Ecstasy had been used on a median of 12 days (range 6-120 days), or approximately fortnightly in the six months preceding the interview, which is slightly less than the median of 14 days (range 6-96 days) among the 2003 sample. There was no significant difference between the frequency of use for males and females in the current cohort. A quarter of the sample (24%) had used ecstasy weekly or more frequently in the six months preceding the interview, which is 14% less in comparison to 2003 (38%). One third of the sample had used ecstasy either less than weekly to fortnightly (37%), or less than fortnightly to monthly (39%).

The median number of ecstasy tablets used in a typical session of use was 2 tablets (range 0.5-12), which is slightly greater than the median of 1.5 tablets (range 0.5-7.5) in 2003. The number of tablets consumed in a typical session of use tended to be greater for males (median = 2 tablets) in comparison to females (median = 1.5 tablets), Mann-Whitney U = 905.0, p=.076, though this did not reach conventional levels of statistical significance. Two thirds of the sample (69%) typically used more than one tablet per session, compared to just over half (54%) in 2003. The median number of ecstasy tablets used in the heaviest session of use was 3 tablets (range 1-30). One third of the sample (37%) had used four or more tablets in the heaviest session of use. There was no sex differences in the median number of tablets used in the biggest session of use. A third of the sample had recently binged on ecstasy (34%), or used ecstasy for more than 48 hours continuously without sleep, which is slightly less in comparison to 2003 (41%).

Regular ecstasy users were asked to comment on the locations that they had usually used ecstasy to be under the influence of the drug (rather than the location of ingestion: Table 3). Ecstasy was most commonly used at dance or music related venues such as raves/doofs/dance parties (89%), nightclubs (82%), and live music events (53%). Ecstasy use was also common at private residences including private parties (64%), friends' home (56%), and own home (39%). Other locations included the pub (21%), outdoors (17%), and car (17%), and smaller proportions had used ecstasy at a dealer's home (7%), restaurant/café (6%), or public place (5%). The last location of ecstasy use was relatively consistent with the usual locations used. Over half of the sample reported last using ecstasy at a dance related event (37%) or nightclub (22%). Smaller proportions reported last using ecstasy at a friends home (15%), private party (10%), own home (10%), pub (2%), outdoors (1%), and live music event (1%).

The comments of key experts on ecstasy use among the groups of regular ecstasy users that they were familiar with were generally consistent with reports by users themselves. All KEs who commented noted that ecstasy was typically swallowed in tablet form (n=18). However, several KEs noted that small proportions of the group used ecstasy in either capsule form (n=7) or powder form (n=4). A single regular ecstasy user also noted a recent increase in the availability of MDMA capsules. It was noted by KEs that small proportions of these groups snort ecstasy (5%- 20%, n=9) or use the drug intravenously (2%-15%, n=5). Estimates of the proportion of the groups who shelve/shaft ecstasy were generally low ranging from 1% to 5% (n=4). However, one KE indicated that between 20-35% of the group had started to shelve/shaft (instead of swallowing) in the last six months, and another KE also noted a recent increase in this route of administration. While there is no evidence for an increase in shelving/shafting of ecstasy among the regular ecstasy users in comparison to the 2003 sample, one REU also noted an increase in this route of administration among their friends.

Key expert comments on the frequency of ecstasy use were varied and ranged from 2-3 times a week to sporadic use restricted to special occasions, but thirteen KEs indicated that some proportion of these groups use ecstasy on a weekly basis. Estimates of the amount of ecstasy used in a typical session of use were also varied, ranging from half a pill up to 30 pills in a session of use, however, the majority of estimates ranged from half a pill to three pills in a session (n=8). Four KEs indicated that the frequency of use had increased among these groups and one KE indicated that the frequency of use had decreased among the group of regular ecstasy users that they were familiar with. Two KEs commented that the quantity used generally depended on the strength or purity of the pill and another commented that the pattern of usage at venues depends on the size of and the type of event.

Polydrug use was the norm among regular ecstasy users (see Table 3). A median of 8 drug types (out of the 19 drug types) had been used at some stage by the participants and a median of 6 drug types in the six months preceding the interview. Table 4 shows that the majority of respondents had typically used other drugs when under the influence of ecstasy (99%) and when coming down from ecstasy (89%) during the six months preceding the interview. A median of two drug types had typically been used when under the influence (range 0-8) and when coming down (range 0-5) from ecstasy.

Table 3. Patterns of ecstasy use among REU

Variable	2003 sample (n=100)	2004 sample (n=100)
Mean age first used ecstasy (years)	20 (range 14-40)	20 (range 15-32)
Ecstasy as drug of choice (%)	50	58
Frequency of use		
Median days used ecstasy in the last 6 months	14	12
Use ecstasy weekly or more frequently (%)	38	24
Route of administration of ecstasy		
Mainly swallowed ecstasy in the last 6 months (%)	89	94
Mainly snorted ecstasy in the last 6 months (%)	6	6
Mainly injected ecstasy in the last 6 months (%)	5	0
Dose		
Median number of ecstasy tablets used in a typical session	1.5 (range 0.5-7.5)	2 (range 0.5-12)
Typically use more than one tablet per session (%)	54	69
Recently binged on ecstasy (used for > 48 hours) (%)	41	34
Median number of ecstasy tablets used in biggest session	3 (range 1-60)	3 (range 1-30)
Injecting drug use		
Ever injected any drug (%)	26	15
Ever injected ecstasy (%)	18	6
Injected ecstasy in the last 6 months (%)	11	1
Polydrug use		
Median number of drug types ever used	11	8
Median number of drug types used in the last 6 months	7	6
Typically use other drugs in conjunction with ecstasy (%)	98	99
Typically use other drugs to 'comedown from ecstasy (%)	89	89
Locations usually used ecstasy in the last 6 months		
Home (%)	30	39
Dealer's home (%)	5	7
Friend's home (%)	29	56
Raves/doofs/dance parties	82	89
Nightclub (%)	73	82
Pub (%)	10	21
Restaurant/cafe	n.a.	6
Private party (%)	32	64
Public place (street/park) (%)	5	5
Outdoors (%)	n.a.	17
Car (%)	5	7
Live music event	n.a.	53
Location last used ecstasy		
Home (%)	8	10
Dealer's home (%)	3	-
Friend's home (%)	11	15
Rave/doof/dance party	33	37
Nightclub (%)	37	22
Pub (%)	4	2
Private party (%)	4	10
Outdoors (%)	-	1
Live music event (%)	n.a.	1
Other	-	2

Source: PDI Regular ecstasy user interviews

Drugs most commonly used when under the influence of ecstasy were alcohol (93%), tobacco (66%) and cannabis (41%). One quarter (24%) had typically used methamphetamine powder when under the influence of ecstasy and smaller proportions had typically used amyl nitrite (6%), nitrous oxide (4%), methamphetamine base (3%), LSD (1%) and other opiates (1%). The drugs most commonly used when coming down from ecstasy were cannabis (62%), alcohol (57%), and tobacco (51%). One tenth of the sample had typically used benzodiazepines when coming down from ecstasy (13%), and smaller proportions had typically used amyl nitrite (2%), nitrous oxide (2%), methamphetamine base (2%), and other opiates (1%).

The proportion of participants that usually drink alcohol when under the influence of ecstasy was greater in 2004 compared to the 2003 sample (93% vs. 72%). This is noteworthy due to the increased risk of dehydration when alcohol is combined with ecstasy. Over two thirds of those who usually drink when under the influence of ecstasy (76%) reported that they typically consumed more than five standard drinks when under the influence of ecstasy, compared to less than half (45%) among the 2003 cohort. The proportion of participants that had used alcohol when coming down from ecstasy (57%) was also greater in comparison to the 2003 sample (39%), as was the number who had typically used more than five standard drinks when coming down from ecstasy (39% vs. 23%).

Table 4. Polydrug use among REU

Variable	Drugs typically used with ecstasy in the last six months (%)		Drugs typically used to come down from ecstasy in the last six months (%)	
	2003	2004	2003	2004
None	2	1	11	11
Methamphetamine powder	25	24	3	2
Methamphetamine base	9	3	3	-
Crystal methamphetamine	8	-	3	-
LSD	2	1	-	-
Ketamine	3	-	2	-
Amyl nitrate	12	6	2	2
Nitrous oxide	4	4	1	2
Cannabis	44	41	63	62
Alcohol				
Usually drink	72	93	39	57
Usually drink > 5 std drinks	45	71	23	39
Opiates	5	1	10	1
Tobacco	72	66	56	51
Antidepressants	1	-	1	-
Benzodiazepines	2	-	17	13
Median number of drugs typically used	2 (range 0-9)	2 (range 0-5)	2 (range 0-8)	2 (range 0-5)

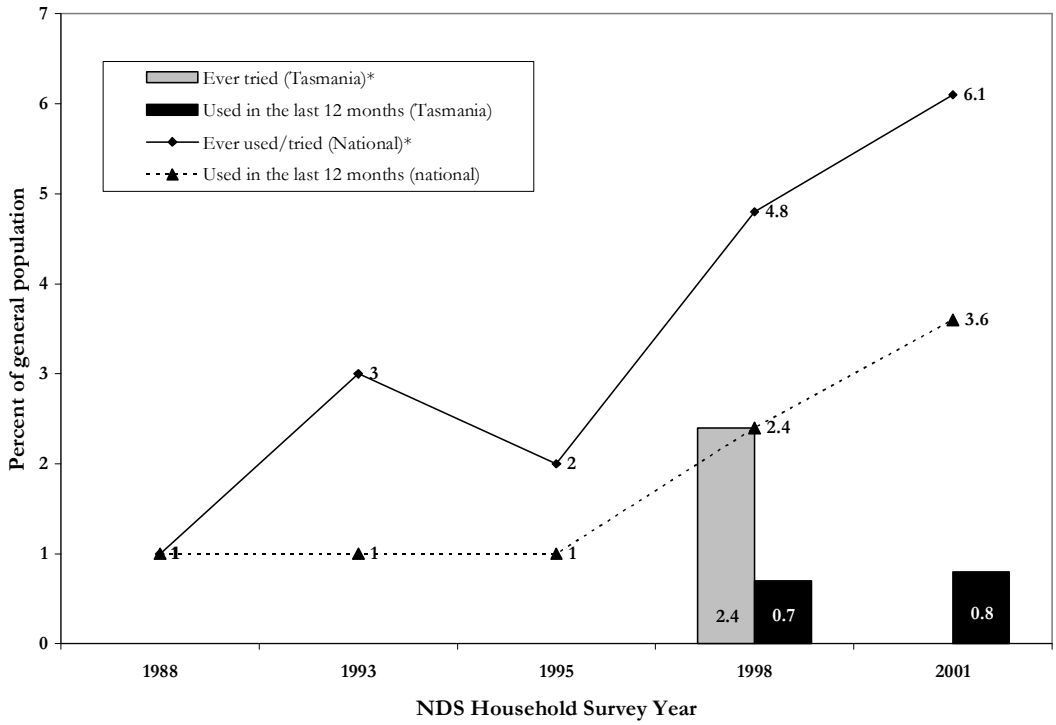
Source: PDI Regular ecstasy user interviews

Seven KEs commented on polydrug use within the group of regular ecstasy users that they had recent regular contact with. Typical drug combinations included the use of ecstasy with methamphetamine (n=5), alcohol (n=3) and cannabis (n=3), which is consistent with the patterns of use of regular ecstasy users. One KE mentioned that the use of ecstasy in combination with LSD or psychedelic mushrooms was also common, though there is little evidence that this is a combination 'typically' used among the group of ecstasy users interviewed in the current study. Single KEs noted recent increased use of alcohol (n=4), methamphetamine (n=1), and methamphetamine/alcohol (n=1) in combination with ecstasy. Two KEs noted a recent increase in the number of people using benzodiazepines when coming down from ecstasy. The increase in the use of alcohol in combination with ecstasy is supported by the increase in the number of regular ecstasy users who typically use alcohol in combination with ecstasy. Several REUs noted anecdotal increases in the use of other drugs in combination with ecstasy (n=4), with single reports of increased use of methamphetamine, cannabis and cocaine in combination with ecstasy. However, there is little objective evidence to support this in the current data set.

4.1.2 Use of ecstasy in the general population

Figure 1 displays the prevalence of lifetime and recent ecstasy use in the general population based on data collected by the National Drug Strategy Household Survey (NDSHS) in 1998 and 2001 (Australian Institute of Health and Welfare, 1999, 2002). The lifetime prevalence of ecstasy use among the general population increased from 1% in 1988 to 6.1% in 2001 and the proportion that had used ecstasy in the preceding 12 months also increased from 1% in 1988 to 3.6% in 2001. The proportion of the Tasmanian sample that had ever used ecstasy was 2.4% (n=28) in 1998, which is half the national average of 4.8%. Less than 1% of the Tasmanian population reported recent use of ecstasy in both 1998 (0.7%) and 2001 (0.8%) which is also lower than the national average of 2.4% and 4.8% respectively. The proportion of the Tasmanian sample reporting lifetime use of ecstasy was not included in the 2001 report due to a change in the way this question was asked between surveys which may have influenced its reporting.

Figure 1. Prevalence of Ecstasy use in Australia, 1988-2001



Source: National Drug Strategy Household Survey 1988-2001

4.2 Summary of patterns of ecstasy use

- Most participants had first used ecstasy at around 20 years of age and three quarters had been using ecstasy for two years or more.
- Ecstasy was typically used on a fortnightly basis with an average of two tablets taken orally in a typical session. There was anecdotal evidence for a recent increase in the number of people shelving/shafting ecstasy.
- One quarter used ecstasy on a weekly basis or more frequently and two thirds typically used more than one tablet in a typical session of use.
- Frequency of use was slightly lower but the amount used in a typical session and the proportion using more than one tablet per session was slightly greater in comparison to the 2003 sample.
- Males tended to use larger amounts in a typical session in comparison to females, but there were no sex differences in the frequency of use.
- One third had recently used ecstasy in a binge session or a continuous 48 hour period of drug use without sleep.
- The majority of regular ecstasy users had typically used other drugs in combination with ecstasy. Alcohol cannabis and tobacco were most commonly used and one quarter had typically used methamphetamine when under the influence of ecstasy.
- Over two thirds of the sample typically consumed more than five standard drinks in combination with ecstasy, compared to less than half in 2003 (45% vs. 71%). Similarly, one third had typically consumed more than five standard drinks when coming down from ecstasy compared to one in five in 2003 (39% vs. 23%).

4.3 Price

The median price reported by regular ecstasy users for one ecstasy tablet was $40 (range $30-50), compared to $50 ($30-50) per tablet in the 2003 study. The median price of the last ecstasy tablet purchased was also $40 (range $30-50), compared to $45 in the 2003 study. One respondent indicated that they had last purchased ten tablets for $300. Two thirds of the sample (64%) indicated that the price of ecstasy had been stable in the six months preceding the interview and smaller proportions indicated that the price of ecstasy had either decreased (15%) or fluctuated (13%), or increased (6%).

Table 5. Price of Ecstasy Purchased by REU and Price Variations

Variable	2003 sample n=100	2004 sample n=100
Median price ecstasy tablet (range)	$50 ($30-$50) n=65	$40 ($30-$50) n=100
Median price of last ecstasy tables purchased	$45 ($15-68) n=98	$40 ($30-50) n=100
Price change		
Don't know (%)	-	2
Increased (%)	5	6
Stable (%)	72	64
Decreased (%)	15	15
Fluctuated (%)	8	13

Source: PDI Regular ecstasy user interviews

Key experts' comments on the price of ecstasy were generally consistent with those of regular ecstasy users. The median price for one ecstasy pill was reported to be $40 (n=11), or to range from $30-50 (n=4). Five KEs noted that the price per pill was less when bought in larger quantities with estimates ranging from $18 to $45 per pill when purchased in this manner. Half of the KEs noted that the price of ecstasy had remained stable over the preceding six months. Six KEs indicated that the price of ecstasy had decreased during the preceding 6 months and three KEs noted that the price had decreased during the previous 12 months.

The price of ecstasy reported by Tasmania Police (based on reports from informants) has varied from $60-80 in 1997/98 down to $15-25 in the following two years up to $50-60 and $50-70 respectively in the 2000/01 and 2001/02 reporting periods. The price of $30-70 per tablet in 2002/03 and 2003/04 indicates a decrease in the lower price range in comparison to the previous two years. It should also be noted that during the last quarter of the 2002/03 period, a price of range of $30-50 was reported by Tasmania police which is commensurate with the prices reported by regular ecstasy users and KEs above.

Table 6. Price of ecstasy reported by Tasmania Police 1998/99-2001/02

	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Price per tablet	$60-80	$15-25	$15-25	$50-60	$50-70	$30-70	$30-70

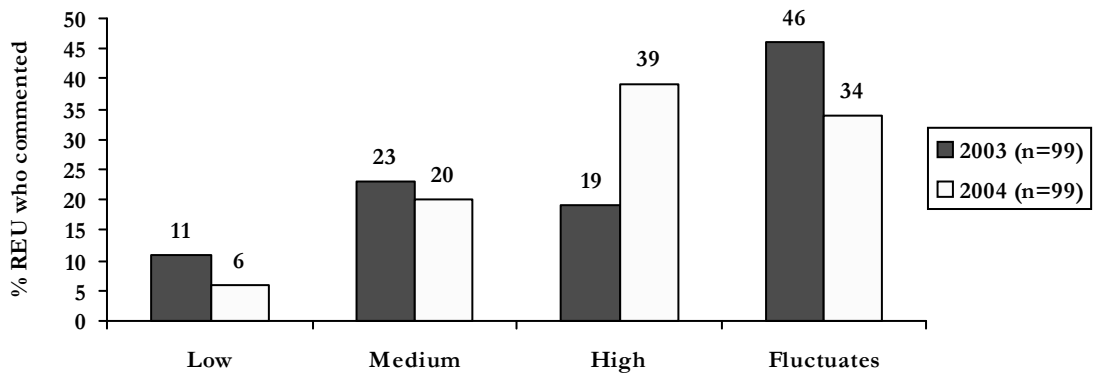
Source: Australian Bureau of Criminal Intelligence (1998, 1999, 2000, 2001, 2002); Australian Crime Commission (2003,2004, 2005)

Regular ecstasy users were asked how they had paid for ecstasy in the six months preceding the interview. A large majority paid for ecstasy through paid employment (87%), over one third had been 'shouted' or received ecstasy as a gift from friends (44%), and one third had paid for ecstasy through a government allowance (36%). Smaller proportions had borrowed money from friends (26%), received credit form dealers (18%), received money from parents (11%) or bartered drugs/goods (11%). Few participants had used illicit means to pay for ecstasy, with 15% dealing drugs for ecstasy profit or to reduce the cost of own use, 8% dealing drugs for cash profit and no reports of fraud, property crime (such as shoplifting or stealing) or sex work to pay for ecstasy in the preceding six months.

4.4 Purity

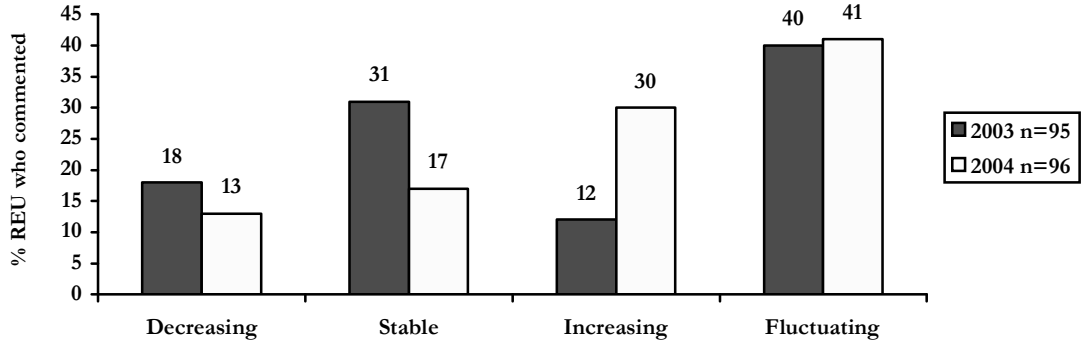
Regular ecstasy users were asked to estimate the purity of ecstasy in the six months preceding the interview (Figure 2). Over one third of the sample indicated that ecstasy was either high in purity (39%) or that it fluctuates in purity (34%). One fifth of the sample reported that ecstasy was medium in purity (20%), and only a small proportion reported that ecstasy was low in purity (6%). The proportion of users who reported that ecstasy was high in purity was greater in comparison to 2003 (39% vs. 19%). Regular ecstasy users were asked if there had been any changes in the purity of ecstasy in the six months preceding the interview (Figure 3). Over one third of respondents indicated that ecstasy had either fluctuated (41%) or increased (30%) in purity during this time. Smaller proportions reported that the purity had remained stable (17%) or decreased (13%). A greater proportion of the 2004 sample indicated that ecstasy had increased in purity (30%) compared to the 2003 sample (12%).

Figure 2. REU reports of purity of ecstasy in the preceding six months



Source: PDI Regular ecstasy user interviews

Figure 3. REU reports of change in purity of ecstasy in the preceding six months



Source: PDI Regular ecstasy user interviews

Seventeen of the twenty KEs were able to comment on the purity of ecstasy, with over half of those commenting that the purity of ecstasy fluctuated (n=9). A further five KEs indicated that ecstasy was high in purity, and three noted that ecstasy was medium in purity. When asked if this purity had changed in the six months preceding the interview, KEs indicated that purity had 'fluctuated' (n=6), 'increased' (n=4), or remained 'stable' (n=4) and a single KE indicated that the purity of ecstasy had 'decreased'. Three KEs noted an increase and two KEs indicated a decrease in purity during the twelve months preceding the interview. Three KEs commented that some proportion of pills that are sold as ecstasy do not contain MDMA. Methamphetamine, ketamine, and caffeine were mentioned as common substitutes for MDMA in pills sold as ecstasy.

There is little objective data on the purity of ecstasy from Tasmania Police due to the small number of ecstasy seizures, and particularly those in which a formal laboratory analysis was conducted to establish the content of the drug seized. Only seizures in which the illicit nature of the drug is contested are formally analysed in Tasmania. Table 7 shows the median purity and number of phenethylamine seizures analysed reported by Tasmania Police from 1999/00 to 2003/04. Phenethylamines refers to the class of drugs including MDMA (ecstasy), MDA, MDEA and mescaline. A greater number of seizures were analysed in the 2003/04 period, however, median purity appears to have been relatively stable from 2001/02 to 1003/04 ranging from 22.9% to 26%. The purity of the 33 samples analysed during the 2003/04 period ranged from 10.4% to 44.5%.

Table 7. Median purity and number of phenethylamine seizures 1999/00-2003/04

	1999/00	2000/01	2001/02	2002/03	2003/04
Median % purity	n/a	3.4	22.9	28.5	26.0
Number of samples	n/a	n=1	n=1	n=3	n=33

Source: Australian Bureau of Criminal Intelligence (2001, 2002); Australian Crime Commission (2003, 2004, 2005)

4.5 Availability

Regular ecstasy users were asked how easy it had been to obtain ecstasy and whether there had been any changes in the availability of ecstasy in the six months preceding the interview (Table 8). Over two thirds of the sample (68%) indicated that ecstasy was 'very easy' to obtain and one quarter (25%) indicated that it was 'easy' to obtain. A small proportion (7%) indicated that ecstasy was 'difficult' to obtain. A greater proportion of the 2004 sample (68%) reported that ecstasy was 'very easy' to obtain in comparison to the 2003 sample (43%). Over one third of the sample indicated that the availability of ecstasy had remained stable (44%) and one third reported that ecstasy had become easier to obtain (35%) in the six months preceding the interview. Smaller proportions indicated that ecstasy had recently become more difficult (10%) or had fluctuated (10%) in availability.

Table 8. REU reports of availability of ecstasy in the preceding six months

Ecstasy	2003 sample	2004 sample
Ease of obtaining ecstasy	n=100	n=100
Very easy (%)	43	68
Easy (%)	29	25
Moderately easy (%)	26	-
Difficult (%)	2	7
Very difficult (%)	-	-
Changes in availability in the last six months	n=99	n=97
Stable (%)	53	44
Easier (%)	20	35
More difficult (%)	19	10
Fluctuates (%)	7	10
Persons Scored from in the last six months	n=100	n=100
Used not scored (%)	n.a.	1
Friends (%)	90	92
Dealers (%)	66	62
Acquaintances (%)	34	34
Workmates (%)	12	12
Unknown people (%)	7	19
Mainland contact / dealer (%)	9	Na
Locations scored from in the last six months	n=100	n=100
Used not scored (%)	n.a.	1
Friends' home (%)	56	77
Dealer's home (%)	47	35
At own home (%)	30	44
Nightclub (%)	40	53
Rave /doof /dance party	37	59
Pub (%)	15	15
Street (%)	7	3
Agreed public location (%)	-	17
Work (%)	-	10
Other (%)	-	2

Source: PDI Regular ecstasy user interviews

All of the twenty key experts interviewed were able to comment on the availability of ecstasy. The majority of key experts indicated that ecstasy was 'very easy' (n=15), or 'easy' (n=3) to obtain and only two KEs indicated that it was 'difficult' to obtain. When asked if the availability of ecstasy had changed, the majority of KEs indicated that it had been 'stable' (n=8) or become 'easier' (n=6) to obtain, and smaller proportions indicated that ecstasy had become 'more difficult' to obtain (n=3), or had 'fluctuated' in availability (n=3). KEs were also asked to comment on changes in availability over the last twelve months preceding the interview. Three KEs noted an increase in the availability of ecstasy during this time.

Regular ecstasy users were asked who they had obtained ecstasy from and at which locations they had typically obtained the drug in the six months preceding the interview. A large majority indicated that they typically obtained ecstasy from friends (92%), followed by dealers (62%), and acquaintances (34%). Smaller proportions typically obtained ecstasy from unknown people (19%) and workmates (12%). A single respondent (1%) had used but had not scored ecstasy.

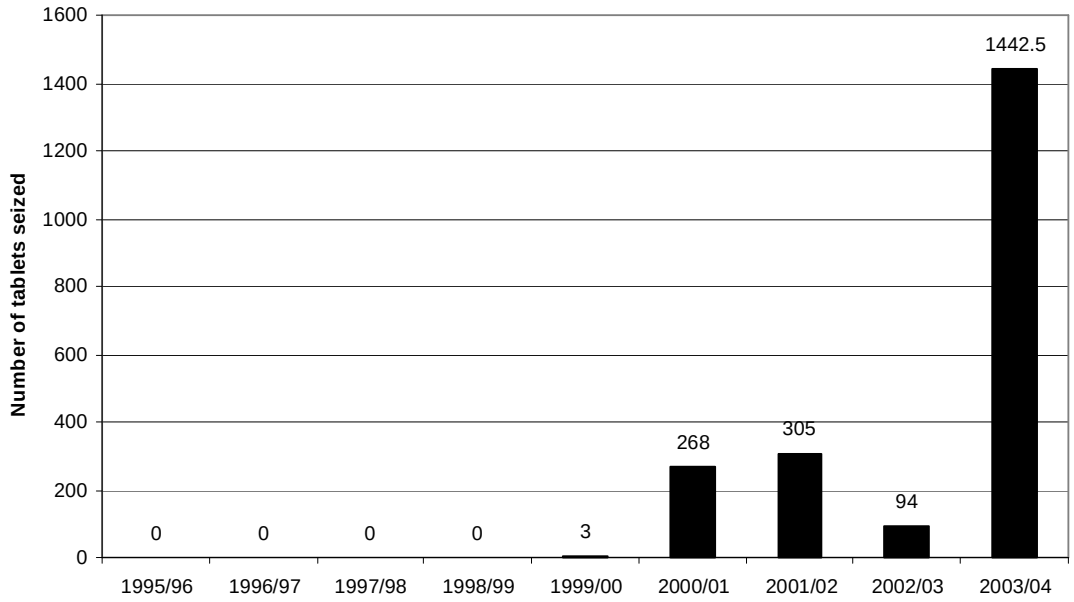
Ecstasy was typically obtained from a friends home (77%) followed by dance related events (59%) and nightclubs (53%). Over one third of the respondents had obtained ecstasy from other private venues such as own home (44%) and dealers' home (35%). Smaller proportions obtained ecstasy from an agreed public location (17%), pub (15%), work place (10%), or street (3%). In comparison to the 2003 cohort, a greater proportion had typically obtained ecstasy at either a friends' or own home or at a dance related event or nightclub and a smaller proportion had obtained ecstasy from a dealers' home.

Key experts also noted that that ecstasy was typically purchased from friends and/or people dealing for ecstasy profit. It was also noted that the market had become more mainstream such that ecstasy could be obtained from a diverse range of people. Several KEs commented that there had been recent increases in the number of younger people dealing ecstasy (n=6), the number of people selling ecstasy to fund their own use (n=2), and the overall number of people selling ecstasy (n=2). Single KEs noted an increase in number of university students, and the number of females selling ecstasy, and the amount of dealing in clubs as opposed to private residences.

Ecstasy had been purchased from a median of 4 people (range 1-15 people) in the preceding six months. Three quarters of the sample (74%) were able to obtain other drugs from the person they had most often purchased ecstasy from in the last six months. One half of respondents could also typically obtain methamphetamine powder (52%) and cannabis (47%). Other drugs included LSD (19%), cocaine (8%), MDA (7%), methamphetamine base (6%), ketamine (4%), crystal methamphetamine (3%), other opiates (3%), MDMA capsules (2%), GHB (1%), heroin (1%), 2C-I (1%), psychedelic mushrooms (1%), and pharmaceutical stimulants (1%).

Figure 4 shows that the number of ecstasy tablets seized by Tasmania police has increased since the 1999/00 financial year and the number of tablets seized in 2003/04 is considerably greater in comparison to the previous three years. However, it should be noted that the 2003/04 data is based on 16 seizures, two of which were over 500 tablets and six of which were less than two tablets. In the 2002/03 reporting period the data is based on four seizures, three of which were less than 5 tabs. Two law enforcement KEs also noted a recent increase in the size and frequency of ecstasy seizures.

Figure 4. Number of seizures of tablets suspected to contain ecstasy by Tasmania police 1995/96-2003/04



Source: Tasmania Police

4.6 Summary of the price, purity and availability of ecstasy

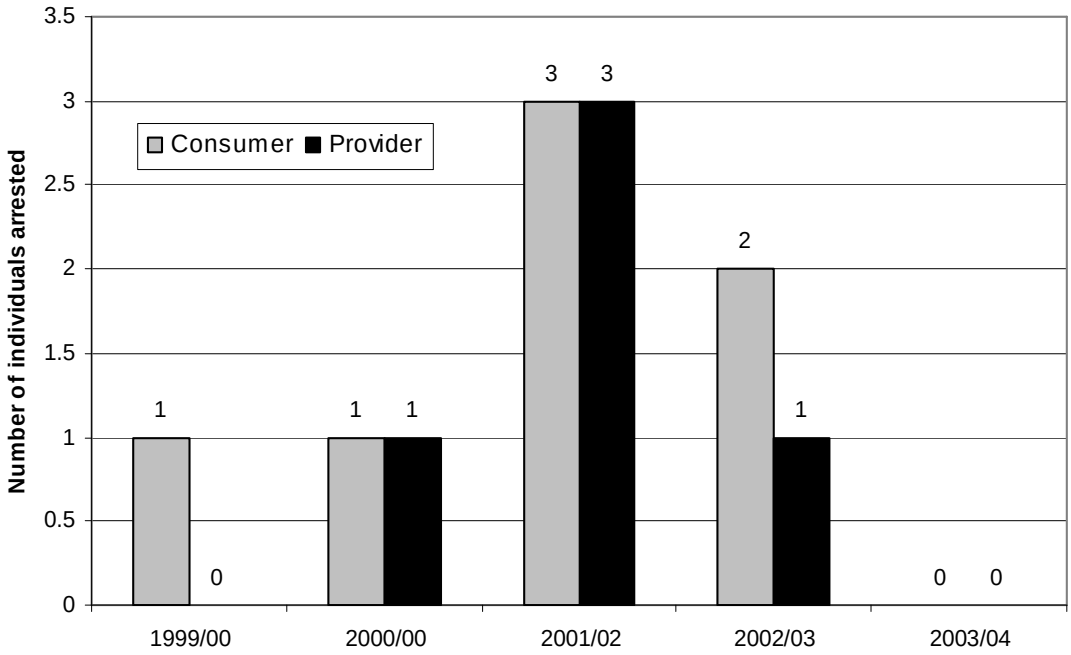
- The median price for one tablet of ecstasy was $40 compared to $50 in 2003. Several key experts also indicated a decrease in the price of ecstasy over the last six to twelve months.
- Regular users and key experts indicated that the purity of ecstasy is currently either fluctuating or high and had recently either fluctuated or increased. A greater proportion of regular ecstasy users indicated that ecstasy is high in purity or that purity had recently increased in comparison to 2003.
- Both key experts and regular ecstasy users indicated that ecstasy is 'easy' or 'very easy' to obtain and that recent availability had remained stable or increased. A greater proportion of regular ecstasy users indicated that ecstasy was 'very easy' to obtain in comparison to 2003.
- Ecstasy was typically purchased from friends or people selling for ecstasy profit.

4.7 Ecstasy related harms

4.7.1 Law enforcement

Figure 5 displays the number of police incidents recorded by Tasmania Police for ecstasy possession and use (consumers) and for dealing or trafficking of ecstasy (providers) from 1999/00 to 2002/03. Consistent with the small number of regular ecstasy users that report coming into contact with the criminal justice system, the number of ecstasy related police incidents are relatively few between the 1999/00 and 2002/03 financial years. However, despite the fact that at least 16 seizures were made during the 2003/04 period (see Figure 4 above), there were no arrests reported by Tasmania police during this time. It is possible that this discrepancy reflects matters that are either still before the courts, offences that were recorded as pertaining to 'amphetamine type stimulants' if multiple drugs were seized, or that those involved in seizures received diversionary sentences or cautions.

Figure 5. Number of police incidents recorded for ecstasy possession/use (consumers) and deal/traffic (providers), 1999/00-2003/04



Source: Tasmania Police

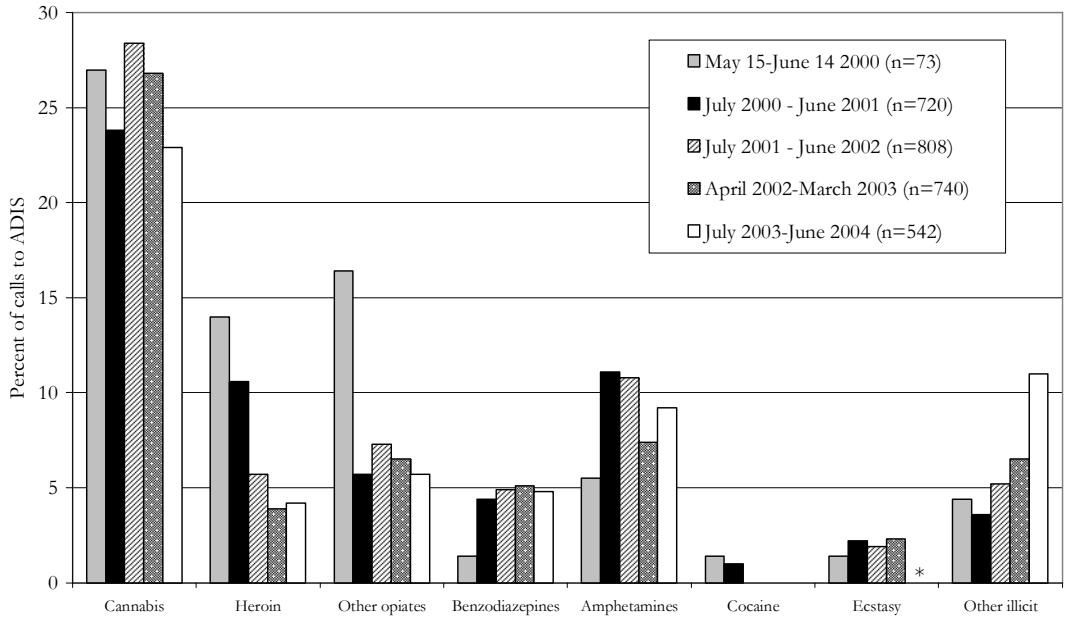
4.7.2 Health related harms

Alcohol and Drug Information Service Data

The Tasmanian Alcohol and Drug Information Service (ADIS) is a telephone information and referral service that is administered by Turning Point Alcohol and Drug Centre in Victoria. A small but consistent number of calls have been recorded in relation to ecstasy during the 1999/00 (16 calls), 2000/01 (15 calls) and 2002/03 (17 calls) reporting periods. Figure 6 shows that calls in relation to ecstasy account for a small percentage of the total calls made to the service when compared to other drug types, particularly cannabis, opiates and methamphetamine. It should also be noted that calls

pertaining to ecstasy use were not specified in the 2003/04 period, and this information (along with cocaine and hallucinogens) may have been collapsed into the apparently increased 'other illicits' category.

Figure 6. Percentage of inquiries to ADIS with regard to each drug type, May 2000 – June 2004.



Source: ADIS Tasmania Reports, Turning Point Alcohol and Drug Centre
(*note that calls referring to ecstasy were not specified in the 2004 reporting, and may have been collapsed into the 'other' column).

There is no other objective data in terms of hospital admissions or access to treatment providers in relation to ecstasy use in Tasmania. However, KEs who work in health professions noted an increase in the number of people who perceived that they were dependent on ecstasy in order to enjoy themselves (though not necessarily addicted) (n=1), and an increase in sleep problems and poorer general health among users (n=1). Another KE noted an increase in depression and anxiety and decreased motivation and also noted that long term users tend to experience social paranoia and relationship difficulties.

Overdose

Two regular ecstasy users indicated that they had overdosed on ecstasy in the six months preceding the interview (see also Section 13.1). The definition of overdose included passing out or falling into a coma, so does not necessarily indicate that the participant accessed a health service or experienced acute physical problems in relation to overdose. The two participants who had overdosed on ecstasy reported that they were also under the influence of alcohol and cannabis at the time, and one participant was also under the influence of amyl nitrite. Four other participants who had reported recently 'overdosing' on alcohol and one who had overdosed on methamphetamine powder indicated that they were also under the influence of ecstasy at the time.

Help seeking behaviour
One tenth (10%) of regular ecstasy users had accessed a health service in relation to their drug use in the six months preceding the interview, however, only four participants had accessed health services in relation to their ecstasy use (see Section 13.3). Two participants had accessed a GP, one for anxiety and the other for a pre-existing condition, one participant reported accessing first aid for a bitten tongue, and another reported being hospitalised for acute physical problems.

4.7.3 Ecstasy Severity of Dependence Scale (SDS)

Regular party drug users were asked about how they felt about their ecstasy use in the 12 months preceding the interview using a version of the Severity of Dependence Scale (SDS) adapted for ecstasy use (see also Section 13.2.1). The scale consists of 5 multiple choice questions, which are rated on a scale of 0 to 3, resulting in a range of possible scores from 0-15. Participants were asked if they thought that their ecstasy use was out of control, if a the prospect of missing a dose made them feel anxious or worried, if they had worried about their ecstasy use, if they had wished they could have stopped, and if they would find it difficult to stop or go without ecstasy.

One quarter of participants (28%) obtained a score of zero on the ecstasy SDS, and one third (32%) obtained a score of one on the scale, thus over half of respondents reported none or few symptoms of dependence in relation to ecstasy use. The median ecstasy SDS score was 1 (range 0-7). There was no significant difference between the ecstasy SDS scores of males (M=1.72, SD=1.81) and females (M=1.67, SD=1.57), Mann-Whitney U = 1163.0, p>.05. One tenth of regular ecstasy users (11%) had a score of 5 or above on the ecstasy SDS in the present study and it is reasonable to assume that some proportion of these people experience significant dependence issues in relation to ecstasy use. For example, a score of four on the SDS is considered a reasonable cut off for predicting DSM-III-R diagnosis of severe amphetamine dependence, and thus the cut off of five selected in the present study is a more conservative estimate (Topp & Mattick, 1997). A greater proportion of younger participants (based on a median split) had a score of 5 or greater on the ecstasy SDS (17% vs. 4%), χ^2= 4.40, p=.036. There were no other differences on other demographic variables.

However, these findings should be interpreted with caution due to the fact that the SDS scale does not have demonstrated reliability or validity in relation to ecstasy use and due to the lack of research in the area of ecstasy dependence. Another issue that should be considered is the fact that many ecstasy pills also include methamphetamine as well as or instead of MDMA, and there is well documented evidence that methamphetamine is associated with symptoms of dependence. One tenth of regular ecstasy consumers considered addiction/dependence to be one of the three biggest risks associated with their own ecstasy use (see Section 4.8.2). A single regular ecstasy user also indicated anecdotally that they had recently sought advice from a friend in relation to ecstasy dependence/addiction.

4.7.4 Other harms

Ecstasy related problems
Regular ecstasy users were asked if their drug use had caused any problems in the six months preceding the interview (see also Section 13.4). One third of the sample reported

experiencing work/study (39%), or financial problems (30%) and one fifth (20%) reported experiencing relationship/social problems in relation to their ecstasy use. A single participant reported experiencing legal/police problems in relation to their ecstasy use in that they had recently felt like they were being followed or were under surveillance.

The majority of the 39% of the sample that had experienced work or study problems attributable to ecstasy use had experienced trouble concentrating, reduced work performance or had felt unmotivated (75%), and the remainder (25%) had taken sick leave or had not attended classes due to their ecstasy use. However, none of the respondents had recently been sacked or had quit their job due to ecstasy use. A greater proportion of the female sample (56%) indicated that they had recently experienced work/study problems in relation to ecstasy use in comparison to the proportion of the male sample (28%), χ^2=8.14, p=.004, and a significantly greater proportion of those that had recently experienced work/study problems had recently used crystal methamphetamine (26% vs. 10%), χ^2=4.42, p=.035. There were no differences between those who had or had not experienced work/study problems in terms of age, frequency and quantity of ecstasy use, binge use of ecstasy, injecting drug use, typically using methamphetamine in combination with ecstasy, typically drinking five or more standard drinks in combination with ecstasy, or recent use of other drug types.

The majority of the 30% of the sample that had experienced financial problems attributable to ecstasy use indicated that they had recently had no money for recreation or luxuries (63%), however, six individuals (20%) indicated that their ecstasy use had put them in debt and a further five individuals (17%) indicated that they had been unable to pay for food or rent due to their ecstasy use. Those who had experienced financial problems were significantly more likely to have recently used tobacco (90% vs. 71%), χ^2=4.09, p=.043. Not surprisingly those who had experienced financial problems in relation to ecstasy tended to have a greater frequency of ecstasy use in the preceding six months in comparison to those who hadn't (14.5 vs. 12 days), Mann-Whitney U = 829.00, p=.094. However, this comparison failed to reach conventional levels of statistical significance. There were no differences between those who had or had not experienced financial problems in relation to any of the other variables mentioned above.

The majority of the 20% of the sample that had recently experienced relationship/social problems indicated that these were relatively minor including arguments or mistrust/anxiety (85%); however, three respondents (15%) had recently ended a relationship as a result of ecstasy use. Those who had experienced social or relationship problems had used ecstasy on a significantly greater number of days in the preceding six months compared to those who had not (19 vs. 12 days), Mann-Whitney U = 457.50, p=.003. A significantly greater proportion had recently used ketamine (15% vs. 2.5%), χ^2=5.26, p=.022, and greater proportions had recently used methamphetamine powder (85% vs. 64%), χ^2=3.32, p=.064, crystal methamphetamine, (30% vs. 13%), χ^2=3.65, p=.056, and cocaine (20% vs. 7.5%), χ^2=2.78, p=.096, and a greater proportion had recently binged on ecstasy (50% vs. 30%), χ^2=2.85, p=.091. However, these latter comparisons did not reach conventional levels of statistical significance.

Driving risk behaviour

Almost half of the regular ecstasy users (45%) had driven soon after (within an hour) of taking ecstasy in the six months preceding the interview (see Section 12.4). There was no difference in the proportion of the female sample (41%) and the proportion of the male sample (48%) that had driven under the influence of ecstasy. Based on a median split, a

greater proportion of older users (54%) had recently driven under the influence of ecstasy in comparison to the proportion of younger users (37%), χ^2=3.13, p=.077, though this did not reach conventional levels of statistical significance.

Compared to those that hadn't driven under the influence of ecstasy, those that had driven under the influence of ecstasy had used ecstasy on a greater number of days in the preceding six months (18 vs. 10 days), Mann-Whitney U = 791.00, p=.002, had used a significantly greater number of tablets in a typical session (2 tablets vs. 1.5 tablets), Mann-Whitney U = 794.00, p<.001, and were more likely to have binged or used ecstasy continuously for 48 hours without sleep (51% vs. 20%), χ^2=10.68, p=.001. and had been using ecstasy for a significantly greater number of years (3 years vs. 2 years), Mann-Whitney U=844.00, p=.009.

In comparison to those that hadn't recently driven under the influence of ecstasy, those that had driven under the influence of ecstasy had used a greater number of drug types ever (10 vs. 7), Mann-Whitney U = 833.00, p=.008, and a greater number of drug types in the last six months (7 vs. 5), Mann-Whitney U = 876.50, p=.018. Greater proportions had used methamphetamine powder in the six months preceding the interview (80% vs. 58%), χ^2=5.41, p=.020, had typically used methamphetamine powder in combination with ecstasy (36% vs. 15%), χ^2=5.99, p=.014, and had also driven under the influence of methamphetamine powder (64% vs. 2%), χ^2=46.22, p<.001. As such, this group of participants appeared to be engaging in a generally greater level of risk behaviour in comparison to the other REU interviewed.

Sexual risk behaviour
Sexual risk behaviour among the participants is discussed in detail in Section 12.3

4.8 Benefit and risk perception

4.8.1 Perceived benefits

The sample of regular ecstasy users were asked to name the three biggest benefits associated with their own ecstasy use. The entire sample of regular ecstasy thought that there were benefits associated with taking ecstasy. Over half of the respondents (51%) perceived one of the biggest benefits of their ecstasy use to be having a fun and enjoyable night or good time. Over one third perceived social benefits such as enhanced closeness with others (39%), enhanced mood (39%), and enhanced communication (33%) to be one of the biggest benefits of their ecstasy use. Sensory benefits such as enhanced appreciation of music/dance (39%) were also commonly reported as were acute effects of ecstasy such as increased energy (29%), experiencing a high/rush/buzz (28%), and to a lesser extent other drug effects (10%). Other respondents indicated that ecstasy allowed them to relax/escape/release (13%) or provided a favourable experience in comparison to alcohol (8%) followed by increased confidence/decreased inhibitions (4%), feeling in control/focussed (4%) and enhanced sexual experience (4%). These findings are similar to those reported in 2003 (see Bruno & McLean, 2004), however, direct comparisons are not possible due to differences in data collection.

Table 9. Perceived benefits of ecstasy use

Benefit	2004 n=100 %
Fun (enjoyable night/good time)	50
Enhanced closeness/bonding/empathy with others	39
Enhanced mood (euphoria/wellbeing/happiness)	39
Enhanced appreciation of music/dance	36
Enhanced communication/talkative/more social	33
Increased energy/stay awake	29
The high/rush/buzz	28
Relax/escape/release	13
Drug effects (eg. hallucinations/insight/clarity/creativity/heightened senses)	10
Different effects to alcohol (eg. non-violent/safer environment/no hangover)	8
Increased confidence/decreased inhibitions	4
Feeling in control/focussed	4
Enhanced sexual experience	4
Enhanced self awareness	-

Source: PDI Regular ecstasy user interviews (Note: participants could report up to three perceived benefits)

4.8.2 Perceived risks

Participants were asked to name the three biggest risks that they perceived to be associated with their own ecstasy use. The majority of the sample (95%) perceived that there were some risks associated with ecstasy use. The greatest risks were damage to brain function or neurological damage (34%) and depression (30%). Other perceived psychological risks included anxiety/panic (12%), addiction/dependence (10%), lack of motivation (11%), paranoia (6%), psychosis (2%), general emotional wellbeing (2%), personality changes (2%) and feeling bad during comedown (1%). Other perceived neuropsychological risks included memory impairment (12%) and cognitive impairment (4%).

Acute physical effects such as vomiting, headache and sleeping problems (17%) and long term physical problems such as heart and lung problems (15%) were perceived to be the greatest physical risks of ecstasy use. However, less than one tenth of participants considered acute physical harms such as dehydration (10%), body temperature regulation (8%), over hydration (2%), fatal overdose (4%) and non fatal overdose (2%) to be major risks of ecstasy use. Similarly, less than one tenth considered effects of intoxication such as impaired decision making/risk taking (9%), driving risk (3%), taking more than intended (3%), combined effects of polydrug use (3%) and other effects of intoxication (1%) to be major risks.

Harms related to the illicit status of ecstasy were also considered to be a major risk. These included unknown drug strength purity (17%), unknown drug contaminants/cutting agents (11%) and other harms related to illicit status (2%). Whereas few regular ecstasy users had recently experienced legal or police problems in relation to their ecstasy use, one fifth (22%) perceived legal/police problems to be a major risk associated with their ecstasy use. Whereas between one fifth and one third had recently experienced financial, employment, or relationship/social problems in relation to their ecstasy use, small proportions perceived these problems to be the biggest risk associated with their use (13%, 2%, and 1% respectively). These findings are similar to

those reported in 2003 (see Bruno & McLean, 2004), however, direct comparisons are not possible due to differences in data collection.

Table 10. Perceived risks of ecstasy use

Risk	2004 n=95 %
Psychological harms	
Depression	30
Anxiety/panic	12
Addiction/dependence	10
Lack of motivation	11
Paranoia	6
Psychosis	2
General emotional wellbeing	2
Personality changes	2
Feeling bad during comedown	1
Neuropsychological harms	
Damage to brain function (brain cells/neurological damage)	34
Memory impairment	12
Cognitive impairment	4
Physical harms	
General acute physical problems (eg. Vomiting/headache/trouble sleeping/weight loss)	17
Long term physical problems (eg cardiac/lungs/respiratory/nasal damage)	15
Dehydration	10
Body temperature regulation	8
Over hydration	2
Fatal OD (death)	4
Non-fatal OD (passing out, coma)	2
Harms related to illicit status	
Unknown drug strength/purity	17
Unknown drug contaminants cutting agents	11
Other harms related to illicit status	2
Effects of intoxication	
Impaired decision making/risk taking	9
Driving risk	3
Taking more than intended	3
Combined effects of polydrug use	3
Other effects of intoxication	1
Other harms	
Legal/police problems	22
Financial problems	13
Unknown long term harm	7
Employment problems	2
Relationship problems	1
Other	1

Source: PDI Regular ecstasy user interviews (Note: participants could report up to three perceived risks)

4.8.3 Other trends and features of ecstasy use

Ecstasy use was common among the social networks of the regular ecstasy users who participated in the study. Over half of the regular ecstasy users interviewed (52%) indicated that most of their friends use ecstasy, and one third (33%) indicated that about half of their friends use ecstasy. Smaller proportions indicated that only a few (12%) or all (3%) of their friends used ecstasy. Half of the respondents (50%) indicated that there had been some recent change in drug use among themselves or friends. Key experts were asked to comment on any changes or trends in ecstasy and other drug use among the group of users they were familiar with. The qualitative comments of both regular ecstasy users and key experts in relation to recent changes and trends in ecstasy use are discussed below.

Whereas the present study is not designed to provide indications of the prevalence of ecstasy use among the population, there is anecdotal evidence from both regular ecstasy users and key experts that the use of ecstasy has increased and become more widespread Several regular ecstasy users commented that there had been an increase in the use of ecstasy among their friends and others (n=10), and a general increase in the number of users (n=4). Similarly, several KEs noted that there had been a general increase in the number of people using ecstasy (n=3) and an increase in the number of younger users (16-18 year olds) was noted by both regular ecstasy users (n=4) and key experts (n=11). An increase in the number of older people using the drug was also noted by some KEs (n=2). Use of ecstasy was considered to have become more mainstream or socially acceptable by some regular ecstasy users (n=3) and key experts (n=5), and KEs also noted that the demographic of users had broadened such that more conservative people or those that wouldn't normally use drugs are taking ecstasy (n=3). Two KEs who work in health professions noted that ecstasy use had increased in low SES or suburban areas as a substitute for other drugs such as opiates, rather than being restricted to the dance or club scene.

Ecstasy was often compared and contrasted to alcohol. Ecstasy was perceived by several regular ecstasy users to have fewer negative effects and to create a safer and friendly environment in comparison to alcohol (n=8). One KE noted that dance events generally imposed few problems and that the main problems generally stem from people who have drunk a lot and are not in the same frame of mind as everyone else, another noted an increase in the number of people who attend dance events and drink alcohol rather than take ecstasy. A substantial and increasing proportion of regular ecstasy users reported that they typically binge drink in conjunction with using ecstasy (see Table 4, Section 4.1). Thus, there are indications that both alcohol and ecstasy are perceived to be drugs used within the context of social settings such as music and entertainment venues and that ecstasy has become more enmeshed in drinking culture.

Both regular ecstasy users and KEs noted a recent increase in the use of both psychedelic mushrooms and research chemicals such as 2CI among regular ecstasy users. Recent patterns of use of both of these drugs are discussed further in Section 11.12 and 11.13 respectively.

4.9 Summary of ecstasy harms and trends of use

- Although the number of ecstasy tablets seized by Tasmania police has increased in the last few years this appears to have had minimal impact on the number of arrests made in relation to ecstasy.
- While a small and consistent number of calls have been made to the Tasmanian Alcohol and Drug Information Service over the last couple of years in relation to ecstasy, these account for a small percentage of the calls made to this service, particularly when compared to the percentage of calls that relate to cannabis and amphetamines.
- The level of experience of overdose in relation to ecstasy use was extremely low, with only two of the regularly ecstasy-using participants indicating that they had overdosed on ecstasy in the six months preceding the interview and both were under the influence of other drugs at this time. Five other participants indicated that they had recently overdosed on other drugs, but were also under the influence of ecstasy at the time.
- Regular ecstasy users do not seem to be accessing traditional health services in relation to their ecstasy use, with only four respondents indicating that they had accessed services in the last six months.
- Although the majority of participants did not report experiencing significant symptoms of dependence in relation to their ecstasy use, approximately 11% of respondents, and a greater proportion of younger users, experienced *some* symptoms of dependence toward the drug. These findings suggest that future research in the area of ecstasy dependence/addiction may be warranted.
- One third of the regular ecstasy users had recently experienced work/study or financial problems and one in five had recently experienced relationship or social problems in relation to their ecstasy use. Whereas as most of these problems were relatively minor in nature, a small proportion experienced more serious problems such as having no money to pay for food or rent, or ending a relationship.
- In the current sample, females were more likely to report work or study problems in relation to ecstasy use. Those who had recently experienced financial problems were more likely to have recently used tobacco and to have recently used ecstasy more frequently. Social/relationship problems were associated with a greater frequency of ecstasy use, binge drug use, and use of other drugs such as methamphetamine powder, crystal methamphetamine, cocaine, and ketamine.
- Almost half (45%) of regular ecstasy users indicated that they had driven soon after (within an hour) of using ecstasy in the preceding six months. Those who had driven under the influence of ecstasy had recently used ecstasy more frequently and in greater quantities, and were more likely to have binged on ecstasy. They had also experimented with a greater number of different drug types, and had typically used methamphetamine powder concurrently with ecstasy.

5.0 METHAMPHETAMINE

In previous years, IDRS reports have used the overarching term 'amphetamines' to refer to both amphetamine and methamphetamine. Throughout the 1980s, the form of illicit amphetamine most available in Australia was amphetamine sulphate (Chesher, 1993). Following the legislative controls introduced in the early 1990s on the distribution of the main precursor chemicals for the production of amphetamine sulphate (Wardlaw, 1993), illicit manufacturers were forced to rely on different procedures for the preparation of amphetamine. Throughout the 1990s, the proportion of amphetamine-type substance seizures that were methamphetamine[1] (rather than amphetamine) steadily increased until methamphetamine clearly dominated the market (ABCI, 1999, 2000, 2001). Across Australia today, the powder traditionally known as 'speed' is almost exclusively methamphetamine rather than amphetamine. The more potent forms of this family of drugs, known by terms such as ice, shabu, base, paste and crystal meth, are also methamphetamine. Therefore, the term methamphetamine will be used in the IDRS and PDI to refer to the drugs available in this class.

As methamphetamine markets across the country have expanded over the past few years, it has become apparent that there is a diversity of forms of methamphetamine sold in the Australian illicit drug market. While there is some disagreement among both users and researchers as to the nature of these forms, it is clear that these are marketed differently to IDU and often sold on differing price scales. As such, trends in regard to each of these forms will be discussed separately where appropriate.

With the exception of amphetamine-based tablets marketed as 'ecstasy', and pharmaceutical stimulants such as dexamphetamine and methylphenidate, it appears that there are three dominant 'preparations' of methamphetamine used within the Tasmanian (and Australian) drug market – each falling at three points along a continuum of form, but all of which are essentially the same substance.

Powder form methamphetamine[2] is the presentation of the drug which has traditionally been available in Australia. This is commonly a powder that can range from fine to more crystalline or coarse, and may take different colours (commonly white, yellow, brown, orange or pink), depending on the chemical process used in its production and the quality of that process. It is produced within Australia, most commonly in small, portable 'laboratories', and is usually based on pharmaceutical pseudoephedrine (extracted from, for example, *Sudafed* tablets). Because of its powder form, it is fairly easy to 'cut' (dilute) and is commonly sold at fairly low purity/potency (although this can vary substantially). In the 2003 PDI and IDRS surveys, participants that reported using each 'form' of methamphetamine were asked to indicate what each 'form' they had purchased in the past six months most closely resembled from a series of exemplars (see Bruno & McLean, 2004)[3], and methamphetamine powder was commonly reported as a beige/yellowy/off-white powder.

---

[1] Methamphetamine is an abbreviation of the name methylamphetamine, and as such, both terms are interchangeable.

[2] Powder form methamphetamine is also referred to in National and other jurisdiction IDRS reports as 'speed'.

[3] The exemplars provided, along with a discussion of the proposed groupings of the pictures, is available at: http://ndarc.med.unsw.edu.au/ndarc.nsf/website/IDRS.bulletins, and an article discussing evolving changes in Australian methamphetamine markets by Topp and Churchill (2002) is also accessible at the same address.

The two other 'forms' of methamphetamine are traditionally higher in potency (due to being more difficult to 'cut') and have been increasing in availability across all Australian Jurisdictions in the past few years (Topp et al., 2002). The first, referred to in some jurisdictions as 'base' or 'paste' is commonly a gluggy, oily, 'wet' powder. Although it does not seem to have a particular moniker in Tasmania, it is usually sold in units of 'points' (0.1 grams) in comparison to powder methamphetamine, which is traditionally sold in gram units at similar prices. This form of the drug appears oily because the conversion process from pseudoephedrine to methamphetamine produces the alkaline (base) form of methamphetamine, which is 'oily'. To convert this to a more easily injectable form (methamphetamine hydrochloride crystals, which may take the appearance of powder, or, when no impurities are present, and carefully crystallised, may take the form of the 'ice' crystals discussed below) requires a high level of skill, and when not completed correctly, the result of this process is an oily powder that often has a yellow or brownish tinge due to the presence of iodine and other impurities (Topp & Churchill, 2002). In the 2003 IDRS IDU survey (Bruno & McLean, 2004), respondents that had recently purchased this form of the drug locally reported it as appearing as a 'oily', 'gunky', 'gluggy' gel, brown or 'bloody' in colour (not unlike tree sap, burnt sugar or dried honey).

The final form of methamphetamine, often referred to as 'ice' or 'crystal meth(amphetamine)' is the product of a careful production process, and is believed to chiefly be imported into Australia from Asian countries (Topp & Churchill, 2002), although there are also indications of local production in recent years (ACC, 2003). It commonly appears as clear, ice-like, crystals, and as such, is difficult to 'cut' (dilute), resulting in a relatively high-purity/potency product. Those 2003 IDRS IDU survey respondents that had recently purchased this form locally commonly described this form as white / clear crystals or rocks, looking like crushed glass or rock salt (with crystals commonly larger than sugar crystals).

For the 2004 PDI, regular ecstasy users were asked to differentiate between methamphetamine powder, 'base/paste' and crystalline methamphetamine.

5.1 Methamphetamine use among REU

A large majority of the regular ecstasy using sample (85%) had used some of methamphetamine at some stage during their lives, and there was no significant difference between the proportion of males (89%) and of females (80%) that had ever used the drug. Over three quarters of the sample (76%) had used some form of methamphetamine in the six months preceding the interview. There were no sex differences in the proportion of males (79%) and females (72%) that had recently used some form of the drug. The median frequency of use of any methamphetamine form over the last six months was 6 days, or approximately once a month, and this was similar for males and females. The most common route of administration in the last six months was swallowing (63%), followed by snorting (45%) and smoking (14%). Just over one tenth of the sample (14%) had ever injected some form of methamphetamine, and less than one tenth (8%) had injected any form of methamphetamine in the last six months.

5.1.1 Methamphetamine Powder (Speed)

A large majority of regular ecstasy users (82%) had used methamphetamine powder at some stage of their lives, which is similar to the proportion that reported ever using methamphetamine powder among the 2003 sample (90%). There was no significant difference between the proportion of males (87%) and females (74%) who had ever used methamphetamine powder in the current cohort and no differences on any other demographic variables. The median age of first use was 20 years (range 15-27 years), and there was no significant difference between the age of first use for males and females. The majority of those who had ever used methamphetamine powder had swallowed (87%) or snorted (79%) the drug, and smaller proportions reported injecting (16%) or smoking (9%). For the thirteen respondents who reported ever injecting methamphetamine powder, the median age of first injection was 18 years (range 15-29 years).

Over two thirds of the sample had used methamphetamine powder in the six months preceding the interview (68%), which is similar to the proportion reporting recent use of methamphetamine powder among the 2003 sample (67%). There was no significant difference between the proportion of the male sample (72%) and the proportion of the female sample (62%) that reported recent use of methamphetamine powder. The majority of those who had recently used methamphetamine powder had swallowed (85%) or snorted (63%) the drug in the six months preceding the interview, and smaller proportions reported injecting (9%) or smoking (4%) the drug.

The median frequency of methamphetamine use was 5 days (range 1-48 days) or slightly less than once a month, in the six months preceding the interview (Table 11). Two thirds of those that had recently used the methamphetamine powder (66%) had done so monthly or less, 19% had used the drug more than monthly but less than weekly, and 15% had used the drug weekly or more often (but not more often than twice a week) in the six months preceding the interview. The typical amount of methamphetamine powder used by REU was a median of one point (0.1 of gram) in a typical session (range 0.25-3 points), and one point (with a greater range of 0.25-6 points) in the biggest session of use in the last six months. Almost one quarter of the regular ecstasy using sample (24%) reported that they typically used methamphetamine powder when under the influence of ecstasy, and two respondents (2%) reported that they typically used methamphetamine powder when coming down from ecstasy (see Section 4.1, Table 4).

Table 11. Patterns of methamphetamine powder (speed) use of REU

Methamphetamine powder variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	90	82
Median age of first use	19 years (range 16-31)	20 years (range 15-27)
Used preceding six months (%)	67	68
Injected in the preceding six months (%)	11	6
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	4 (1-120)	5 (1-48)
Median quantities used (points)		
Median points used typically in the preceding six mths	1 (0.5-5)	1 (.25-3)
Median points used in biggest session in the preceding six mths	1 (0.5-40)	1 (.25-6)

Source: PDI Regular ecstasy user interviews

The majority of key experts were able to comment on the use of methamphetamine powder among the regular ecstasy users that they were familiar with (n=17). The most commonly reported routes of administration were swallowing (n=14), and snorting (n=8) and six KEs indicated some intravenous use of methamphetamine powder among the groups. Estimates of the frequency of methamphetamine use ranged from 2-3 times a week to monthly and estimates of the quantity of methamphetamine powder used ranged from less than one point to one gram (n=11), with the majority of estimates ranging from 1 to 2 points (n=7) per occasion of use. Three KEs commented that methamphetamine powder is commonly used as a substitute when ecstasy is not available.

5.1.2 Methamphetamine Base

Table 12 shows that one third of the sample (32%) had used methamphetamine base at some stage of their lives, which is similar to the proportion reporting lifetime use among the 2003 cohort (36%). A significantly greater proportion of the male sample (43%) reported lifetime use of methamphetamine base in comparison to the female sample (15%), χ^2=8.11, p=.004. The median age of first use of methamphetamine base was 22 years (range 16-29 years) and there was no significant difference of the average age of first use for males and females. The majority of those that had ever used methamphetamine base had swallowed the drug (84%), and smaller proportions reported injecting (22%), snorting (16%), and smoking (6%) the drug. The median age of first injection for the seven people who reported ever injecting methamphetamine base was 20 years (range 17-29 years).

One fifth of the sample (20%) had used methamphetamine base in the six months preceding the interview, which is similar to the proportion of the sample that reported recent use of methamphetamine base among the 2003 sample (24%). There was no significant difference between the proportion of males (23%) and females (15%) that reported recent use of methamphetamine base, and no differences on any other demographic variable, however, a greater proportion of older users (31%) had recently used methamphetamine base in comparison to younger users (10%), χ2=7.30, p=.007. The majority of those who had recently used methamphetamine base had swallowed the drug (85%), and smaller proportions had injected (30%), snorted (15%), or smoked (5%) the drug. The median frequency of use in the six months preceding the interview was three days (range 1-24), or approximately once every two months during this time. Three quarters of those who had recently used methamphetamine base (75%), had used the drug less than monthly in the preceding six months, and the remaining 25% had used the drug between monthly and weekly.

The usual amount of methamphetamine base used in the preceding six months was a median of one point (0.1 of a gram) in a typical session of use and a biggest session of use (range 0.25-2.5: Table 12). Two respondents also reported that they had used half a gram in a typical session and three respondents reported that they had used a median of 1.0 gram (range 0.5-3g) in the biggest session of use in the last six months. Three respondents indicated that they typically used methamphetamine base under the influence of ecstasy, there were no reports of typical use of methamphetamine base when coming down from ecstasy (see Section 4.1, Table 4).

Table 12. Patterns of methamphetamine base use of REU

Methamphetamine base variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	36	32
Median age of first use	21 years (range 16-31)	22 years (range 16-29)
Used preceding six months (%)	24	20
Injected in the preceding six months (%)	9	6
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	3 (1-96)	3 (1-24)
Median quantities used (points)		
Median points used typically in the preceding six months	1 (0.5-5)	1 (0.25-2.5)
Median points used in biggest session in the preceding six mths	1 (1-40)	1 (0.25-2.5)

Source: PDI Regular ecstasy user interviews

Over half of the key experts did not comment or did not know of use of methamphetamine base among the group of regular ecstasy users that they had regular contact with (n=11). A further five KEs commented that methamphetamine base was generally not used or not available. One KE commented that a small proportion of the group that they were familiar with (<5%), used methamphetamine base and another commented that the use of base was similar to that of methamphetamine powder.

5.1.3 Crystal Methamphetamine

Table 13 shows that over one third of the regular ecstasy using sample (36%) had used crystal methamphetamine at some stage of their lives, which is 22% less in comparison to the proportion of the sample in 2003 (56%). A significantly greater proportion of the male sample (44%) reported ever using crystal methamphetamine in comparison to the proportion of the female sample (23%), χ^2=4.63, p=.031. The median age of first use of crystal methamphetamine was 22 years (range 16-29 years), and there was no significant difference between males and females in terms of the age of first use. The majority of those who had ever used the crystal methamphetamine had smoked the drug (75%), and smaller proportions reported that they had ever swallowed (39%), snorted (17%), or injected (14%) the drug. The median age of first injection for the five respondents who reported ever injecting the drug was 20 years (range 18-23 years).

Less than one fifth (16%) of the regular ecstasy using sample had used crystal methamphetamine in the six months preceding the interview, which is 36% less in comparison to the 2003 cohort (52%). There was no significant difference between the proportion of the male sample (13%) and the proportion of the female sample (21%) that had recently used crystal methamphetamine and no other differences on other demographic variables. The majority of those who had recently used crystal methamphetamine had smoked the drug (69%), and smaller proportions had swallowed (31%), or snorted the drug (13%, n=2). One respondent (6%) had injected crystal methamphetamine on two occasions in the preceding six months.

The median frequency of use in the preceding six months was 1 day (range 1-18 days), which is lower in comparison to the median frequency of use of 3 days (range 1-72) among the 2003 sample. The majority of those who had recently used crystal

methamphetamine (88%) had used the drug on three occasions or less during this time, with single respondents reporting use of the drug either monthly or every three weeks. There were no significant sex differences in the median frequency of crystal methamphetamine use. The average amount used in a typical session of use in the six months preceding the interview was one point or 0.1 of a gram (range 0.25 - 2 points), and in the biggest session of use the median amount used was also one point, with a greater range of 0.25 to 2.5 points. There were no reports of regular ecstasy users typically using crystal methamphetamine under the influence of or when coming down from ecstasy (see Section 4.1, Table 4).

Table 13. Patterns of crystal methamphetamine use of REU

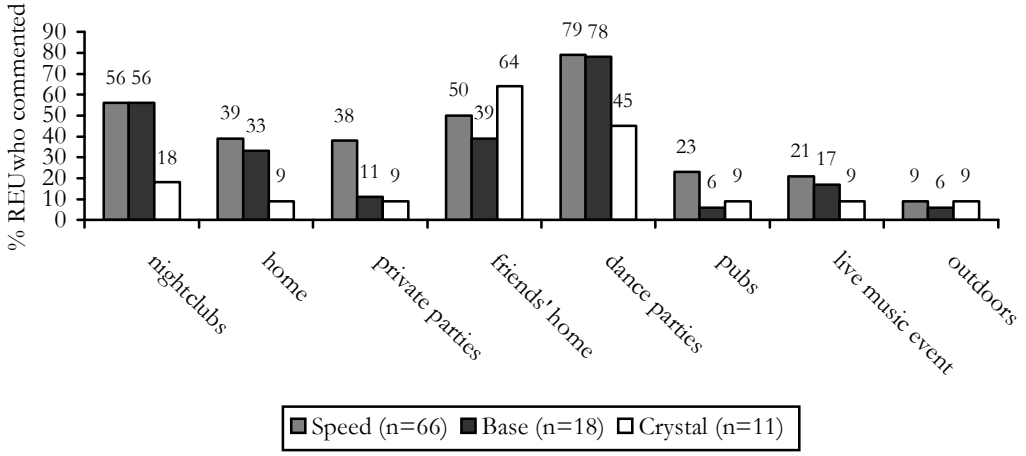
Crystal Methamphetamine variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	58	36
Median age of first use	22 years (range 17-45)	22 years (range 16-29)
Used preceding six months (%)	52	16
Injected in the preceding six months (%)	13	5
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	3 (1-72)	1 (1-18)
Median quantities used (points)		
Median points used typically in the preceding six months	0.5 (0.2-2)	1 (0.25-2)
Median points used in biggest session in the preceding six mths	1 (0.25-10)	1 (0.25-2.5)

Source: PDI Regular ecstasy user interviews

Six of the key experts interviewed did not know or did not comment on the use of crystal methamphetamine. The remaining fourteen KEs indicated that between 1% and 50% of the regular ecstasy users that they were familiar with used crystal methamphetamine (median estimate of 10%). The majority of KEs who commented on crystal methamphetamine indicated that the drug was usually smoked (n=10), and five KEs reported some intravenous use in small proportions of the group that they were familiar with. The frequency of use was considered to be low and subject to availability.

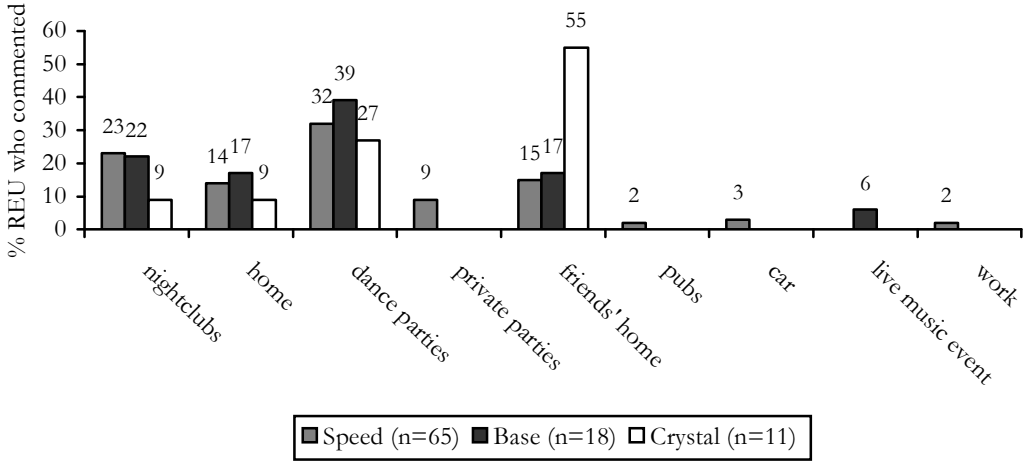
Regular ecstasy users were asked to comment on the locations that they had typically used each form of methamphetamine to be under the drugs influence (rather than the place of ingestion) in the last six months preceding the interview (Figure 7 & 8). Methamphetamine powder was typically used at venues such as dance events (79%) and nightclubs (56%), followed by private residences such as friends home (50%), own home (39%), and private parties (38%). Methamphetamine base was also most commonly used at venues such as dance events (78%) and nightclubs (56%), followed by private residences such as a friends' home (39%), and the respondent's own home (33%). In comparison to the other forms of methamphetamine, crystal methamphetamine was more likely to be used at a friend's home (64%), and less likely to be used at dance events (45%) and nightclubs (18%). The last location of methamphetamine use was generally consistent with the usual locations of use. Methamphetamine powder and methamphetamine base were most commonly last used at dance events (32% and 39% respectively), followed by nightclubs (23% and 22% respectively) and private residences such as a friends' home (15% and 17%) and the respondents own home (14% and 17%). In comparison, crystal methamphetamine was most commonly last used at a friends home (55%) followed by dance events (27%).

Figure 7. Location of usual methamphetamine use by form in 2004



Source: PDI Regular ecstasy user interviews

Figure 8. Last location of methamphetamine use by form in 2004



Source: PDI Regular ecstasy user interviews

5.2 Price

Regular ecstasy users were asked to indicate the market price and the price of last purchase for the three major forms of methamphetamine. A greater number of respondents were able to report confidently on the price of methamphetamine powder, in comparison to methamphetamine base and crystal methamphetamine.

The median price for one point (0.1 of a gram) of methamphetamine powder was $40 (range $25-55), which is consistent with the last purchase price of $40 (range $20-$50), but is $10 less in comparison to the market price reported by the 2003 REU sample ($50, range $40-$50). The market price and last purchase price for a gram of

methamphetamine was $300 (range $50-400). Two KEs also noted that the price of methamphetamine powder had recently decreased.

The median market price for one point of methamphetamine base was $50 (range $40-200), which is consistent with the last reported purchase price of $50 (range $30-55). The median market price and last purchase price for a gram of methamphetamine base was $300. The prices of methamphetamine base are relatively consistent with those reported by the 2003 REU sample.

Less regular ecstasy users were able to confidently comment on the price of crystal methamphetamine in 2004 in comparison to 2003 (Table 13). However, the median reported market price of $50 (range $40-$75) for a point is consistent with the price of last purchase ($50, range $40-$50) and with the market price reported in 2003 ($50, range $35-$100). One gram of crystal methamphetamine was reported to cost $350 (range $250-400), which is slightly higher than the price per gram for the other forms of methamphetamine. However, these results should be interpreted with caution due to the smaller number of people commenting.

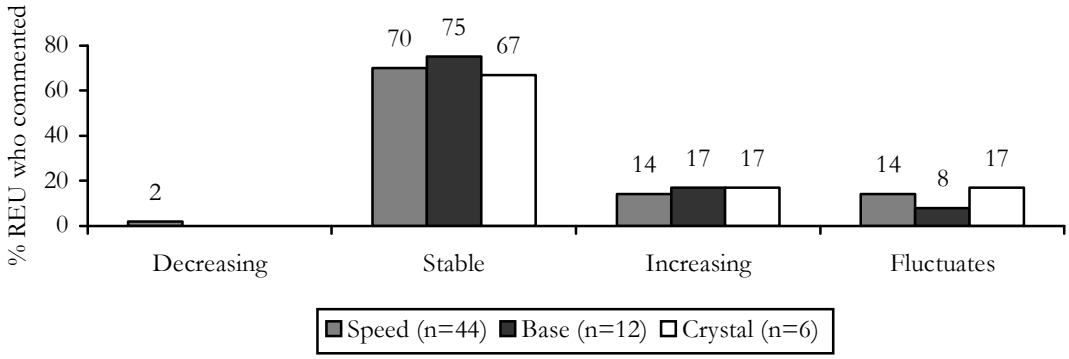
Table 14. Price of various methamphetamine forms purchased by REU

Median price ($) methamphetamine	2003 sample n=100	2004 sample n=100
Speed		
Point	$50 ($40-$50) n=41	$40 ($25-55) n=49
Gram	$200 ($30-300) n=11	$300 ($50-400) n=18
Base		
Point	$50 ($35-300) n=16	$50 (40-200) n=14
Gram	$300 ($250-375) n=5	$300 ($50-350) n=7
Crystal		
Point	$50 ($35-100) n=31	$50 ($40-75) n=11
Gram	$400 ($300-500) n=8	$350 ($250-400) n=4
Last Purchase Price		
Speed		
Point	$40 ($3-65) n=47	$40 ($20-50) n=41
Gram	$300 ($30-320) n=9	$300 ($50-400) n=11
Base		
Point	$40 ($20-50) n=14	$50 ($30-55) n=14
Gram	$275 ($200-300) n=4	$300 ($250-350) n=3
Crystal		
Point	$50 ($35-100) n=22	$50 ($40-50) n=6
Gram	$450 ($400-450) n=3	$350 ($350-350) n=2

Source: PDI Regular ecstasy user interviews

A greater proportion of the regular ecstasy using sample were able to comment on recent price changes of methamphetamine powder (44%), in comparison to methamphetamine base (12%) and crystal methamphetamine (6%: Figure 9). The majority of regular ecstasy users who commented on the price of each form of methamphetamine in the preceding six months indicated that the price of methamphetamine powder (70%), methamphetamine base (75%), and crystal methamphetamine (67%) had remained stable during this time.

Figure 9. Recent change in price of various methamphetamine forms 2004



Source: PDI Regular ecstasy user interviews

Tasmania Police district drug bureaux gather regular information regarding current prices of illicit drugs, both through informant reports and covert drug purchases. Since July 1999, this has been provided to the authors through the Tasmanian Police State Intelligence Services and prior to this, such information has been attained through the Australian Bureau of Criminal Intelligence (ABCI, now the Australian Crime Commission). During the 2003/04 financial year, Tasmania Police reported prices as being $50-70 per 'point' (0.1g) of methamphetamine, $300-600 per gram, and $3000-10000 per ounce (Table 15). These prices were reasonably consistent with REU and KE reports of prices in the current survey, although over a longer time period, providing support for REU and KE suggestions that the price of methamphetamine had remained stable in the preceding six months. It should be noted that the prices reported in Table 15 for the 2003/04 financial year are substantially greater than those reported for the 2001/02 financial year. It is likely that this change is due to a shift in focus in that the earlier reported prices were primarily reflective of the prices of methamphetamine powder, which was the form that Tasmania Police were primarily identifying at this time.

Table 15. Methamphetamine prices in Tasmania reported by the Tasmania Police Drug Bureaux, 1996-2004

	Point (~0.1g)	Street Gram (0.6-0.8g)	Full Gram (1.0g)	Ounce (28g)
July-Sept 1996	*price not reported*	$50-80	$100-120	$1400
Oct-Dec 1996	*price not reported*	$50-80	$100-120	$1400
Jan-Mar 1997	*price not reported*	$50-80	$100-120	$1400
April-June 1997	*price not reported*	$70-80	$100-120	$1400
July-Sept 1997	*price not reported*	$50	$100-120	$1200-1400
Oct-Dec 1997	*price not reported*	$50	$100-120	$1400-1600
Jan-Mar 1998	*price not reported*	$50	$70-100	$1400-1600
April-June 1998	*price not reported*	$50	$70	$1400-1600
July-Sept 1998	*price not reported*	*price not reported*	*price not reported*	*price not reported*
Oct-Dec 1998	*price not reported*	$50	$70-80	$1200-1400
Jan-Mar 1999	*price not reported*	$50	$70-80	$1200-1400
April-June 1999	*price not reported*	$50	$70-80	$1200-1400
July-Sept 1999	$50	*price not reported*	*price not reported*	*price not reported*
Oct-Dec 1999	$50	$50	$70-80	$1200-1400
Jan-Mar 2000	$40-50	$40-50	$70-80	$1200-1400
April-June 2000	$40-50	$40-50	$70-80	$1200-1400
July-Sept 2000	$40-50	$40-50	$70-80	$1200-1400
Oct-Dec 2000	*price not reported*	$40-50	$70-80	$1200-1400
Jan-Mar 2001	$40-50	$40-50	$70-80	$1200-1400
April-June 2001	$40-50	$40-50	$70-80	$1200-1400
July-Sept 2001	$40-50	$40-50	$70-80	$1200-1400
Oct-Dec 2001	$40-50	$40-50	$70-80	$1200-1400
Jan-Mar 2002	$40-70	$40-50	$70-80	$1200-1400
April-June 2002	$40-70	$40-50	$70-80	$1200-1400
July-Sept 2002	$50-60	*price not reported*	*price not reported*	*price not reported*
Oct-Dec 2002	$50-60	*price not reported*	*price not reported*	$3500-5000
Jan-Mar 2003	$50	$100-300	$200-300	$5000
April-June 2003	$50	$150	$400	$5000-6000
July-Sept 2003	$50-70*	$100-300	$300-600*	$3000-10000*
Oct-Dec 2003	$50-70*	$100-300	$300-600*	$3000-10000*
Jan-Mar 2004	$50-70*	$100-300	$300-600*	$3000-10000*
April-June 2004	$50-70*	$100-300	$300-600*	$3000-10000*

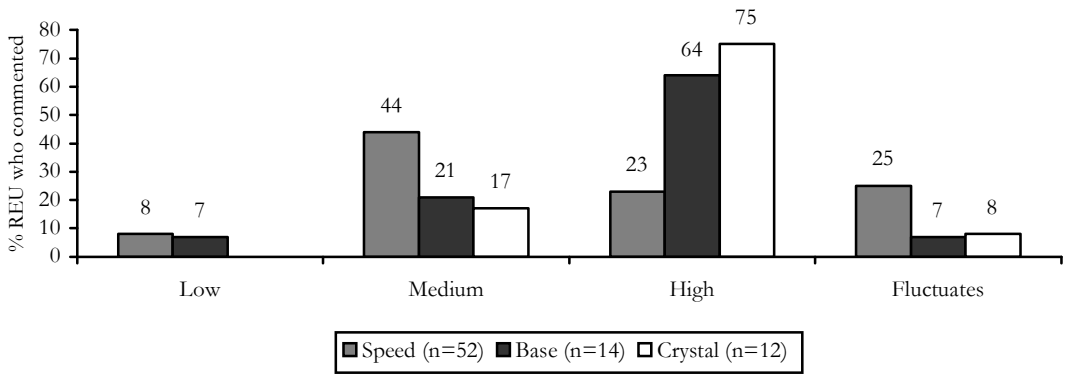
Source: Australian Crime Commission; Tasmania Police State Intelligence Services; *Note: these prices are those reported by Tasmania Police State Intelligence Services. For this period, the Australian Crime Commission reported the following prices: $50-60 per 0.1g; $200-400 per 1.0g; $3500-6000 per ounce.

5.3 Purity

Figure 10 shows that a greater proportion of the regular ecstasy using sample was able to comment on the strength or purity of methamphetamine powder (52%), in comparison to methamphetamine base (14%) and crystal methamphetamine (12%). The majority of those who commented on the purity of methamphetamine powder indicated that it was medium (44%) or that it fluctuates (25%) in purity. In comparison, the majority who commented on the purity of methamphetamine base and crystal methamphetamine considered these forms to be high in purity (67% and 75% respectively). Two KEs commented that the purity of methamphetamine powder had increased in the six months preceding the interview.

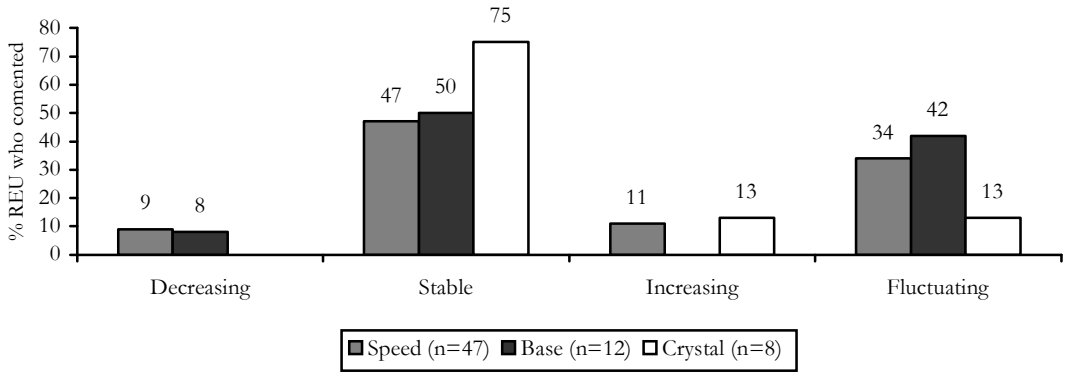
A greater proportion of respondents were able to comment on changes in the purity of methamphetamine powder (47%) in comparison to methamphetamine base (12%) and crystal methamphetamine (8%: Figure 11). The majority of those who commented on methamphetamine powder and methamphetamine base indicated that the purity of these forms had remained stable (47% and 50% respectively) or fluctuated (34% and 42% respectively) in the last six months. However, the majority of those who commented on changes in the purity of crystal methamphetamine indicated that it had remained stable during this time.

Figure 10. Current purity of various forms of methamphetamine 2004



Source: PDI Regular ecstasy user interviews

Figure 11. Recent change in purity of various forms of methamphetamine 2004



Source: PDI Regular ecstasy user interviews

Table 16 and Table 17 display the purity of methamphetamine seizures analysed by Tasmania police between the 1997/98-2003/04 financial years. All amphetamine-type stimulants tested for purity during 2003/04 were methylamphetamine rather than amphetamine. Only seizures in which the content of the sample is contested are formally analysed for purity in Tasmania. Hence, purity data for drug seizures in the state are minimal. This very restricted sample size renders it difficult to make inferences about trends in purity of methamphetamine. However, the data does seem to suggest that the level of purity of consumer-type amounts of methamphetamine seized in Tasmania has remained relatively stable over the period 1997/98 to 2000/01. The apparent sharp 'jump' in purity of analysed methamphetamine samples between 2000/01 and 2001/02 relates to samples analysed in the October-December 2001 and January-March 2002 period (Table 17). This increase in purity may have simply reflected the analysis of a more representative sampling of methamphetamine seizures (afforded by the greater sample size) rather than being indicative of changes in market purity, particularly given the decline in both number and purity of analysed seizures in subsequent months (Table 17). Overall purity data in 2003/04 represents a slight increase in purity (17%) when compared to those analysed in the previous year (12%: Table 16). That noted, however, the range in purity levels has remained relatively stable in the past three financial years (0.1-71% in 2001/02; 2-79% in 2002/03; 2-80% in 2003/04). As shown in Table 17, the higher-purity seizures were those of small amounts (purity range of 2-81% for seizures of 2 grams or less, and 4-22% for larger seizures analysed in 2003/04). Anecdotal reports from Tasmania Police suggest that these particularly high-purity samples may have been seizures of small amounts of crystal methamphetamine.

Table 16. Purity of seizures of methamphetamine made by Tasmania Police received for laboratory testing, 1997/98 – 2003/04

	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
<=2 g							
n	*4*	*31*	*9*	*10*	*20*	*30*	*9*
average % purity	5 %	5 %	7.4 %	10.4%	26.6%	12.7%	25.6
> 2g							
n	*2*	*8*	*11*	*14*	*28*	*13*	*14*
average % purity	7 %	21 %	6.6 %	3.6 %	19.2%	11.2%	9.8%
Total							
n	*6*	*39*	*20*	*24*	*48*	*43*	*23*
average % purity	**6 %**	**8 %**	**7 %**	**6.4 %**	**22.2%**	**12.2%**	**16.9**
range % purity	3-8%	2-59%	2-26%	0.5-50%	0.1-70.6%	1.9-78.5%	2.4-80.5%

Source: Australian Bureau of Criminal Intelligence; Australian Crime Commission

Note: No seizures made by the Australian Federal Police in the state were analysed during this period. All analysed seizures of amphetamines in this period revealed methylamphetamine rather than amphetamine.

Table 17. Purity of Tasmanian seizures of methamphetamine made by Tasmania Police received for laboratory testing, by quarter, July 1999-June 2004

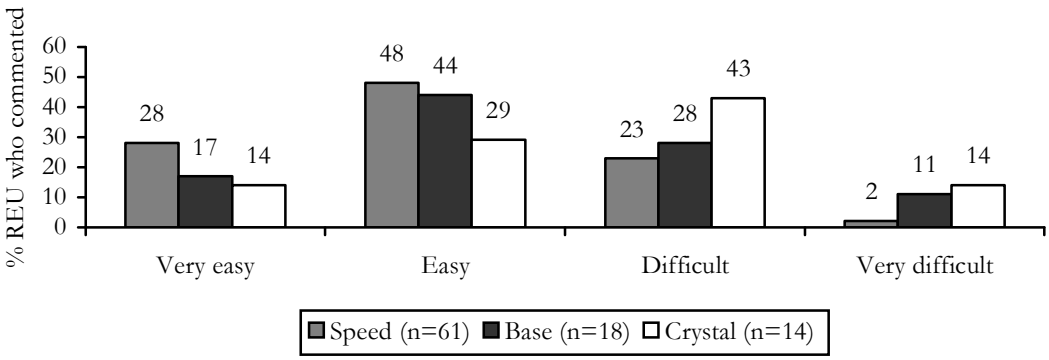
	Jul-Sep 1999	Oct-Dec 1999	Jan-Mar 2000	Apr-Dec 2000	Jan-Mar 2001	Apr-Jun 2001	Jul-Sep 2001	Oct-Dec 2001	Jan-Mar 2002	Apr-Jun 2002	Jul-Sep 2002	Oct-Dec 2002	Jan-Mar 2003	Apr-Jun 2003	Jul-Sep 2003	Oct-Dec 2003	Jan-Mar 2004	Apr-Jun 2004
<=2 g																		
n	*2*	*1*	*6*	-	*9*	*1*	*1*	*6*	*12*	*1*	*3*	*4*	*4*	*19*	*2*	*2*	*4*	*1*
median % purity	15.3%	3.0%	6.0%	-	3.2%	5.2%	9.0%	31.1%	26.0%	6.7%	6.4%	5.9%	13.1%	13.1%	40.0%	28.4%	50.6%	16.9%
> 2g																		
n	*1*	*2*	*8*	-	*12*	*2*	*6*	*7*	*13*	*2*	*1*	*4*	*7*	*1*	*8*	*1*	*5*	-
median % purity	6.0 %	2.5%	6.0%	-	3.8%	3.1%	5.5%	30.1%	20.0%	18.5%	6.3%	10.4%	12.8%	7.6%	17.4%	15.4%	4.1%	-
Total																		
n	*3*	*3*	*14*	-	*21*	*3*	*7*	*13*	*25*	*3*	*4*	*8*	*11*	*20*	*10*	*3*	*9*	*1*
avg % purity	6.0%	2.5%	6.0%	-	3.4%	4.3%	6.8%	30.1%	24.9%	6.7%	6.4%	10.4%	12.8%	13.0%	17.4%	25.6%	4.1%	16.9%

Source: Australian Bureau of Criminal Intelligence; Australian Crime Commission; Tasmania Police State Intelligence Services. Note: No seizures made by the Australian Federal Police in Tasmania were submitted for purity testing in this period. All analysed seizures of amphetamines in this period revealed methylamphetamine rather than amphetamine. Figures represent the purity of seizures received at the laboratory within the relevant quarter, and the interim between the date of seizure by police and the date of receipt at the laboratory may vary between one day and several months.

5.4 Availability

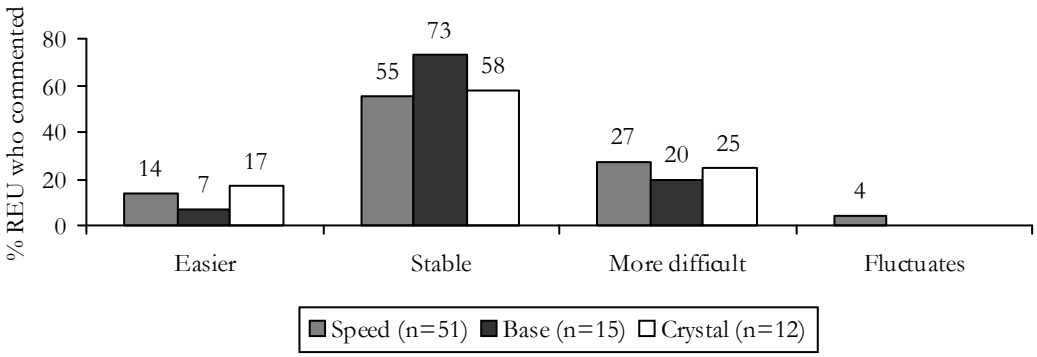
Figure 12 shows that a greater proportion of the regular ecstasy using sample was able to comment on the availability of methamphetamine powder (61%), in comparison to methamphetamine base (18%) and crystal methamphetamine (14%). The majority of regular ecstasy users who commented reported that methamphetamine powder was 'easy' (48%) or 'very easy' (28%) to obtain, and a quarter reported that it was 'difficult' to obtain (23%). Methamphetamine base was most commonly reported to be 'easy' (44%), or 'difficult' (28%) to obtain. In comparison crystal methamphetamine was reported to be 'difficult' (43%) or 'easy' (29%) to obtain. The majority of those who commented on the changes in availability of methamphetamine powder (55%), methamphetamine base (73%), and crystal methamphetamine (58%) indicated that the availability of these forms had remained stable in the six months preceding the interview (Figure 13). Two KEs commented that the availability of methamphetamine powder had increased and two KEs commented that the availability of methamphetamine had decreased. Several KEs indicated that the use and availability of crystal methamphetamine had decreased in the six months preceding the interview (n=6). However, one KE reported increased availability of the drug during this time. Another KE indicated that there was a decrease in the use of crystal following December 2003, but that use and availability had since increased.

Figure 12. Current availability of various forms of methamphetamine 2003



Source: PDI Regular ecstasy user interviews

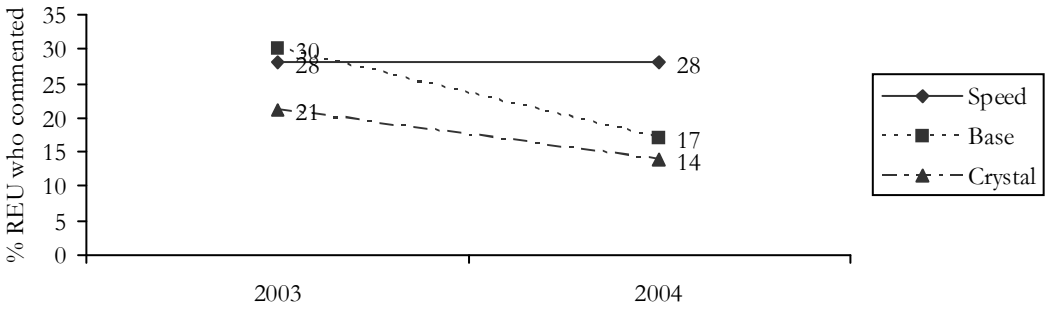
Figure 13. Change in the availability of various forms of methamphetamine in the preceding six months



Source: PDI Regular ecstasy user interviews

Figure 14 shows that the proportion of the sample who indicated that methamphetamine powder was 'very easy' to obtain was the same in 2004 (28%) as it was in 2003 (28%). In comparison, a smaller proportion indicated that methamphetamine base (37% vs. 17%) and crystal methamphetamine (21% vs. 14%) were 'very easy' to obtain in 2004 in comparison to the 2003 sample.

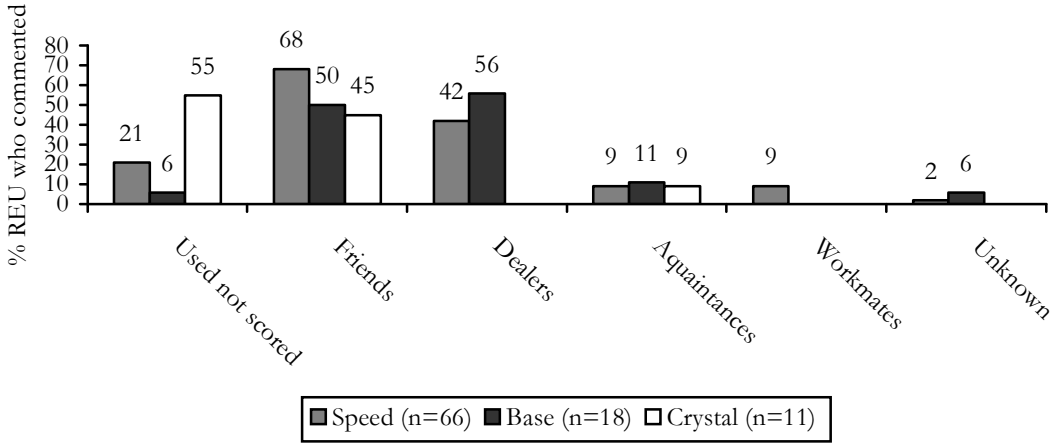
Figure 14. Changes to current availability over time: proportion of REU reporting each methamphetamine form as 'very easy' to obtain in the last six months 2003/2004



Source: PDI Regular ecstasy user interviews

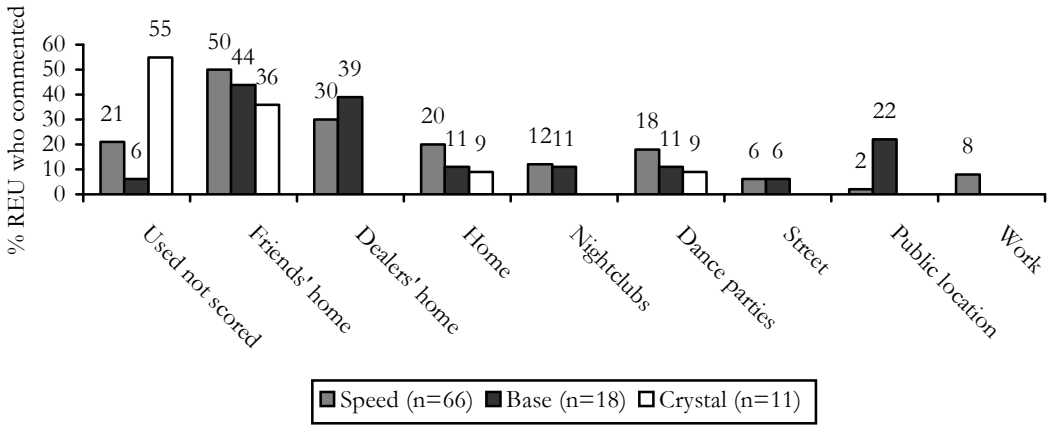
Regular ecstasy users were asked who they had obtained each methamphetamine from in the last six months and at which venues they had normally obtained the drug (Figure 15 and Figure 16). Methamphetamine powder was most commonly obtained from friends (68%), and dealers (42%) and two out of five people (21%) had used the drug but not scored it themselves. Consistent with this, methamphetamine powder was typically obtained from private residences such as a friends home (50%), dealers home (30%), or own home (20%). Methamphetamine base was more likely to be obtained from dealers (56%), followed by friends (50%), and was typically obtained from a friends home (44%) or dealers home (39%). Consistent with the greater proportion who reported obtaining methamphetamine base from dealers, methamphetamine base was also more likely to be obtained from a public location (22%). Crystal methamphetamine was most commonly either used but not scored (55%) or obtained from friends (45%), and when it was obtained by the user it was typically obtained from a friend's home (36%).

Figure 15. People from whom methamphetamine forms were purchased in the preceding six months



Source: PDI Regular ecstasy user interviews

Figure 16. Locations where methamphetamine forms were purchased in the preceding six months



Source: PDI Regular ecstasy user interviews

Tasmania Police seizures of methamphetamine (Table 18) have continued a downward trend, following a reasonably stable level of seizures in the 2000/01 and 2001/02 financial years (3030g and 3041g respectively), falling to 2022g in 2002/03 and 1182g in 2003/04[4]. However, this may be a reflection of a changing methamphetamine market, where 0.1g ('point') units are currently the most commonly sold amounts (in comparison to 1g amounts when powder methamphetamine was predominant). As an example of this, Tasmania Police seized 17.3 grams of crystalline methamphetamine in the 2003/04 financial year.

[4] Data reported by the Australian Crime Commission (ACC) differs to that provided by Tasmania Police State Intelligence Services (SIS), with the ACC reporting 109 seizures, totalling 1737g of 'amphetamine-type stimulants' made in Tasmania during the 2003/04 financial year. As the other data reported in Table 15 represent SIS figures, SIS figures for 2003/04 are reported for consistency.

Table 18. Tasmania Police data for methamphetamine: July 2000-June 2004

	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
Methamphetamine Powder Seized (g)*								
South	1113	330	469	1077	882	457	96	495
North	17	86	70	1	196	27	23	44
West	1073	411	822	602	144	316	469	55
total	2203g	827g	1361g	1680g	1222g	800g	588g	594g
% within southern region	*51%*	*40%*	*34%*	*64%*	*72%*	*57%*	*16%*	*83%*
Methamphetamine Tablets Seized								
South	2	0	1	1	24	21	146	0
North	4	17	0	0	13	11	43	3
West	0	0	0	42	1	0	0	0
total	6	17	1	43	38	32	189	3
% within southern region	*33%*	*0%*	*100%*	*2%*	*63%*	*66%*	*77%*	*100%*

Source: Tasmania Police State Intelligence Services *This row includes powder seized and verified as containing methamphetamine, and unknown powder seized, believed to be methamphetamine.

5.5 Methamphetamine related harms

5.5.1 Law enforcement

Arrest data for methamphetamine-related offences indicate a marked increase in the number of arrests between 1998/99 and 2000/01, with an upward trend continuing into 2001/02 (Table 19). The main increase over this period related to those charged with 'consumer'-type offences (such as use and possession), consistent with reports of increased availability and use of methamphetamines (discussed below), although there was a concomitant, albeit less marked, increase in the number of supply-type arrests in this period. There has been a decline on overall methamphetamine arrest rates in the past two financial years, with the largest drop being seen in consumer-type offences (falling from 71 in 2001/02 to 31 in 2003/04). However, these numbers of arrests remain substantially larger than those seen prior to 2000/01.

Table 19. Consumer and provider arrests for methamphetamine and related substances, 1996/97-2003/04

	1996/97 n	1997/98 n	1998/99 n	1999/00 n	2000/01 n	2001/02 n	2002/03 n	2003/04 n
Consumers								
Female	3	5	0	4	9	18	8	10
Male	15	9	4	14	51	53	34	21
Unknown	0	1	2	2	0	0	0	0
Total	18	15	6	20	60	71	42	31
Providers								
Female	0	0	0	0	1	6	2	1
Male	2	0	1	7	9	12	17	7
Unknown	0	0	0	1	0	0	0	0
Total	2	0	1	8	10	18	19	8
Total Arrests	20	15	7	28	70	89	66	39

Source: Australian Crime Commission (previously the Australian Bureau of Criminal Intelligence) and State Intelligence Services, Tasmania Police

Note: "Consumer" refers to persons charged with use-type offences (e.g. possession, administration), while "provider" refers to persons charged with supply-type offences (e.g. supply, cultivation or manufacture). Where a person has been charged with multiple offences within a category, that person is only counted once in these statistics.

5.5.2 Health

Hospital Admissions

The Australian Institute of Health and Welfare has provided hospital morbidity data in relation to drug use from the year 1999/00 to 2002/03. Diagnoses were coded based on the International Classification of Diseases (ICD) 10, second edition. A 'principal diagnosis' refers to the instance where it is established upon examination that the drug was principally responsible for the patient's episode in hospital. An 'additional diagnosis' refers to the case where the condition or complaint is either co-morbid with the principal diagnosis or arises during the course of the episode in hospital. It is important to note that data from Tasmania's only public detoxification centre was included from June 2002 onwards.

The total number of methamphetamine related hospital admissions have risen gradually in Tasmania from 1999-00 to 2002/03 (see Figure 17). The number of methamphetamine related primary diagnoses has risen from an average of less than 10 cases per quarter prior to 2001 to an average of over 10 cases per quarter reported since this time. The number of cases in which methamphetamine was coded as an additional diagnosis has risen to around 50 cases per quarter since admissions to the public detoxification centre were included in the dataset in July 2002.

Prior to 2002/03 the rate of methamphetamine-related total and primary diagnoses per million population were approximately 75% and 50% that of the national rate respectively (see Figure 18). However, in the 2002/03 period the rate of total and secondary methamphetamine related diagnoses are similar to the national rate and the number of primary diagnoses has increased to around 83% that of the national rate. This increase in the number of methamphetamine-related admissions may be related to the inclusion of the data from the detoxification centre in Tasmania in 2002 (particularly in the cases of secondary diagnoses), a general decline in the rate of admissions at a national level, as well as a general increase in methamphetamine related admissions in Tasmania.

Alcohol and Drug Information Service Data

The Tasmanian Alcohol and Drug Information Service (ADIS) is a telephone information and referral service that is administered by Turning Point Alcohol and Drug Centre in Victoria. Figure 6 in Section 4.7.2 shows that calls in relation to amphetamine account for between 7% and 11% of all calls made to the service between the 2000/01 and 2003/04 reporting periods. There have been slight fluctuations in the percentage of calls received in relation to methamphetamine over the last four years, but no clear trend in the data.

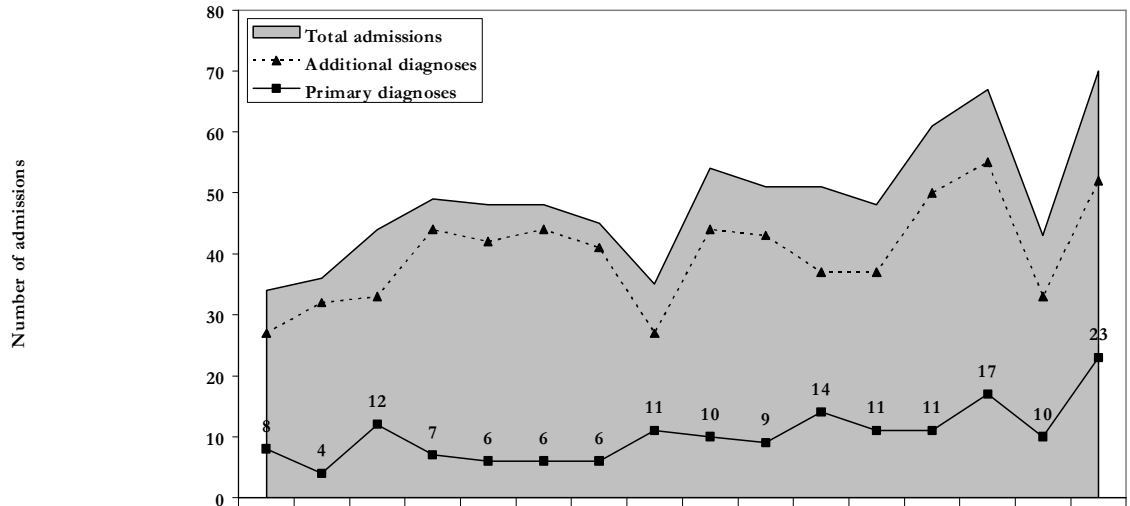
Overdose

Regular ecstasy users were asked if they had overdosed on any drug in the six moths preceding the interview (see section 13.1). The definition of overdose included passing out or falling into a coma, so does not necessarily indicate that the participant accessed a health service or experienced acute physical problems in relation to overdose. One participant indicated that they had overdosed on methamphetamine powder in the preceding six months, and that they were also under the influence of ecstasy and alcohol at the time. Another participant attributed an overdose episode to alcohol but had also used methamphetamine powder during this time. Further a single participant attributed an overdose episode to cannabis but was also under the influence of crystal methamphetamine at the time.

Help seeking behaviour

One tenth of the regular ecstasy using sample (10%) had accessed a health or medical service in relation to their drug use in the six months preceding interview (see Section 13.3). Only one participant had accessed a health service in relation to methamphetamine use in the preceding six months having been to see a psychologist in relation to anxiety experienced mainly due to use of methamphetamine powder.

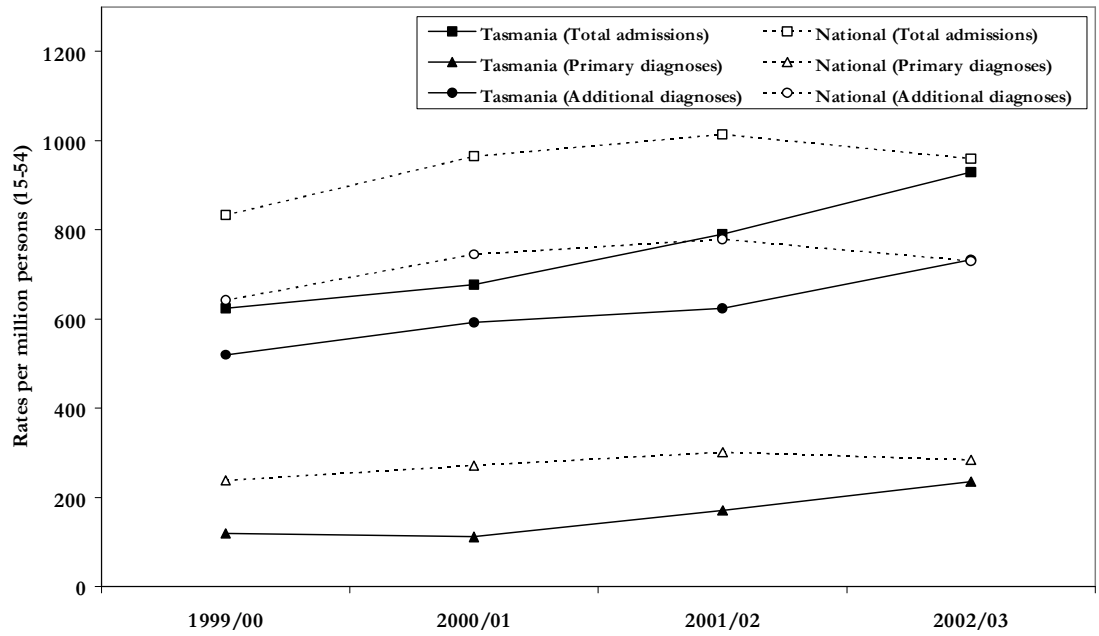
Figure 17. Public hospital admissions where methamphetamine was noted as a contributing factor towards diagnosis in Tasmania 1999/00-2002/03



	Jul-Sep 1999	Oct-Dec 1999	Jan-Mar 2000	Apr-Jun 2000	Jul-Sep 2000	Oct-Dec 2000	Jan-Mar 2001	Apr-Jun 2001	Jul-Sep 2001	Oct-Dec 2001	Jan-Mar 2002	Apr-Jun 2002	Jul-Sep 2002	Oct-Dec 2002	Jan-Mar 2003	Apr-Jun 2003
Total admissions	34	36	44	49	48	48	45	35	54	51	51	48	61	67	43	70
Additional diagnoses	27	32	33	44	42	44	41	27	44	43	37	37	50	55	33	52
Primary diagnoses	8	4	12	7	6	6	6	11	10	9	14	11	11	17	10	23

Source: Australian Institute of Health and Welfare

Figure 18. Public hospital admissions where methamphetamine was noted as a contributing factor towards diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03



Source: Australian Institute of Health and Welfare

5.5.3 Methamphetamine SDS

Regular ecstasy users who had used methamphetamine in the six months preceding the interview were asked about how they felt about their use of this drug in the last 12 months, using a version of the Severity of Dependence Scale (SDS). The scale consists of 5 multiple choice questions, which are rated on a scale of 0-3, resulting in a range of possible scores from 0-15. Participants were asked if they thought that their methamphetamine use was out of control, if a prospect of missing a dose made them feel anxious or worried, if they had worried about their methamphetamine use, if they had wished they could have stopped and if they would find it difficult to stop or go without methamphetamine. Of those who completed the methamphetamine SDS, 67% were referring to methamphetamine powder (n=50), 13% (n=10) referring to methamphetamine base and 4% were referring to methamphetamine crystal (n=3). 20% (n=15) were not referring to a particular form of methamphetamine.

The median SDS score for those who had used methamphetamine in the preceding six months was 0 (range 0-10, n=75). Two thirds of those who completed the methamphetamine SDS received a score of zero, indicated no symptoms of dependence. There was no significant difference between the methamphetamine SDS scores of males (1.23, SD=2.25, n=48) and females (1.37, SD=2.60, n=27). (Mann-Whitney U = 647.50, p>.05. A small proportion of those who completed the methamphetamine SDS (12%, n=9) had a score of 5 or more on the methamphetamine SDS, and it is reasonable to assume that a proportion of these people had experienced significant symptoms of dependence. For example, a score of four on the SDS in relation to methamphetamine use is considered a reasonable cut off for predicting DSM-III-R diagnosis of severe amphetamine dependence (Topp & Mattick, 1997).

5.5.4 Other harms

Methamphetamine related problems

Regular ecstasy users were asked if their drug use had caused any problems in the six months preceding the interview (see Section 13.4). Six participants had experienced relationship or social problems in relation to methamphetamine use (methamphetamine powder 3%, methamphetamine base 3%). Most problems were relatively minor, however, one participant reported being kicked out of home in relation to their use of methamphetamine powder. Four participants had experienced financial problems that were primarily attributed to methamphetamine use (3% methamphetamine powder, 1% methamphetamine base). Most problems were relatively minor, however, one participant had not been able to pay for essentials such as food and rent due to use of methamphetamine powder. One participant had experienced legal/police problems in relation to methamphetamine use, having been imprisoned in relation to crystal methamphetamine.

Driving risk behaviour

One third (30%) of regular ecstasy users indicated that they had driven soon after (within an hour) of using methamphetamine powder in the six months preceding the interview (see Section 12.5), which is close to half (44%) of those that had used methamphetamine during this time. Small proportions of the sample indicated that they had driven under the influence of methamphetamine base (6%) and crystal methamphetamine (6%), which equates to 30% and 38% of those that had recently used these forms of methamphetamine respectively. There were no differences in the demographic characteristics of those that had and had not recently driven under the influence of any

form of methamphetamine. Those that had driven under the influence of some form of methamphetamine had used a greater number of drug types ever (10 vs. 7), Mann-Whitney U=534.5, p<.001, and in the last six months (7 vs. 5), Mann-Whitney U=540.5, p<.001, had been using ecstasy for a significantly greater median number of years (3 years vs. 2 years), Mann-Whitney U=534.5, p=.017, and had recently used ecstasy on a greater number of days (19 days vs. 10 days), Mann-Whitney U=547.5, p<.001, and had used greater amounts in a typical session of use (2 vs. 1,5), Mann-Whitney U=707.0, p<.001. They were also more likely to have recently binged on ecstasy and related drugs (100% vs. 53%), χ^2=10.68, p=.001. As such, this group of participants appeared to be engaging in a generally greater level of risk behaviour in comparison to the other REU interviewed.

5.5.5 Other trends and features of methamphetamine use

KEs that worked in health professions noted some recent changes in methamphetamine use among their clients and the type of methamphetamine related problems that clients had been presenting with. One KE indicated that a large proportion (80%) of their clients injected methamphetamine base, and that there had been an increase in the number of younger clients using methamphetamine base intravenously. Another KE indicated that there had been a recent increase in the number of people identifying crystal methamphetamine use as a problem. A recent increase in the number of people presenting with panic attacks and paranoia was also noted and it was suggested that this may be related to the apparent change from opiate to methamphetamine use among this group of users. Another KE noticed a recent increase in the number of people presenting with drug induced psychoses related to methamphetamine use, and an increase in the number of over 18 year old methamphetamine users seeking treatment. Two KEs noted an increase in aggression and violent crime due to methamphetamine use (see also Section 14).

5.6 Summary of Methamphetamine Trends

- Methamphetamine use is common among the group of the regular ecstasy users. Over three quarters (76%) had used some form of methamphetamine in the preceding six months. Methamphetamine was used on a median frequency of six times during this period or approximately monthly.
- Use of methamphetamine powder was most common and was typically swallowed or snorted less than once a month in small amounts (0.1g). Crystal methamphetamine was typically smoked.
- The proportion of the sample reporting lifetime (36% vs. 58%) or recent use (16% vs. 52%) of crystal methamphetamine was substantially lower in comparison to 2003 The median frequency of use was also lower in comparison to 2003 (1 day vs. 3 days) and less people were able to confidently comment on the price, purity or availability of the drug.
- Methamphetamine powder and base were typically used at venues such as dance events or nightclubs, whereas crystal methamphetamine was more likely to be used at private residences.
- Males were more likely to report lifetime use of methamphetamine base and crystal methamphetamine in comparison to females.
- The median price for 0.1 g of methamphetamine powder was $40 which is $10 less in comparison to 2003, but was considered to have remained stable in the preceding six months. The median price for 0.1 gram of methamphetamine base and crystal methamphetamine was $50 which is consistent with the prices reported in 2003.
- Methamphetamine powder was considered to be easy or very easy to obtain, and methamphetamine base and crystal methamphetamine were considered to be more difficult to obtain respectively. Whereas the availability of these forms was considered to be stable in the preceding six months, there are indications that the availability of crystal methamphetamine has decreased in the last year.
- Few participants who had recently used methamphetamine had accessed health services or reported recent overdose or financial, relationship/social or legal/police problems in relation to methamphetamine use. However, one tenth of those that had recently used methamphetamine were identified as experiencing symptoms of dependence in relation to the drug.

6.0 COCAINE

Table 20 shows that one third of the regular ecstasy users had ever used cocaine (32%), which is 12% less in comparison to 2003 (44%). A significantly greater proportion of the male sample (43%) had ever used cocaine in comparison to the proportion of the female sample (15%), χ^2=8.11, p=.004. The median age of first use of cocaine was 21years (range 16-32 years). There was no significant difference between the average age of first use for females and males. The majority of those who had ever used cocaine had snorted the drug (81%), and smaller proportions reported swallowing (28%), smoking (16%), and injecting (16%) the drug. Of the five participants who reported that they had ever injected cocaine, the median age of first injection was 21 years (range 17-23 years).

6.1 Cocaine use among REU

One tenth of the regular ecstasy using sample (10%) reported that they had used cocaine in the six months preceding the interview, which is similar to the proportion who reported recent use of cocaine in 2003 (7%: Table 20). Those that had recently used cocaine had been using ecstasy for a greater number of years in comparison to those that hadn't (7 vs. 3 years), Mann-Whitney *U*, *p*=.004. However, this finding should be interpreted with caution due to the small sample size. The median frequency of cocaine use was 2 days (range 1-20 days) in the preceding six months. There was no significant difference between the median frequency of use for males and females. Regular ecstasy users reported using a median of 0.5 grams (range 0.5- 1.5 grams) in a typical session and 1.0 gram (range 0.5-5.0 grams) in the biggest session of use in the six months preceding the interview. Five participants reported using a median of one point (0.1 g) in a typical session. The majority of those who had used cocaine in the preceding six months had snorted the drug (70%), with small proportions reporting oral use (30%) and IV use (10%, n=1). None of the participants indicated that they had 'typically' used cocaine when under the influence or when coming down from ecstasy in the preceding six months (see Section 4.1, Table 4).

Those who had recently used cocaine were asked about the locations that they had typically used the drug (to be under the influence of its effects). Cocaine was most commonly used at a friend's home (67%), nightclub (50%), or live music event (50%), followed by pub (33%). Other locations included dance related events, the respondents own home, restaurant/café, private party, and outdoors (all 17%). The most common locations for last use of cocaine were at a nightclub (33%) and a friends' home (33%) followed by the respondents own home (17%) and dance party (17%). The locations of cocaine use are relatively consistent with those observed among the 2003 sample Table 20).

Five key experts did not know or did not comment on the use of cocaine among the group of regular ecstasy users that they were familiar with. A further five KEs indicated that cocaine was not used in the group of regular ecstasy users or was generally not seen in Tasmania. Those who commented, indicated that between 1% and 10% of the groups used cocaine (median estimate of 5%, n=9). Cocaine was thought to be snorted (n=8) and to a lesser extent smoked (n=2), or injected (n=1). Frequency of use was generally considered to be low (n=5), and subject to availability (n=5), which was thought to be low and fluctuating. One KE commented that there had been an increase in the amount

of cocaine around in the six months preceding the interview and another noted an increase in the purity of cocaine during this time.

Table 20. Patterns of cocaine use of REU

Cocaine variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	44	32
Median age first used cocaine	21 years (range 15-30)	21 years (range 16-32)
Used preceding six months (%)	7	10
Injected in the preceding six months (%)	-	1
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	2 (1-10)	2 (1-20)
Median quantities used		
Median grams used typically in the last six mths	0.1 (0.1-0.5)	0.5 (0.5-1.5) n=4
Median grams used in biggest binge in the last six mths	0.5 (0.1-0.5)	1.0 (0.5-5.0) n=5
Median points used typically in the last six mths	-	1.0 (0.5-2) n=5
Median points used in biggest session in the last six mths	-	0.75 (0.5-1) n=4
Locations usually used Cocaine in the last 6 months	n=7	n=6
Home (%)	14	17
Dealer's home (%)	-	-
Friend's home (%)	28	67
Raves/doofs/dance parties	29	17
Nightclub (%)	42	50
Pub (%)	-	33
Restaurant/cafe	-	17
Private party (%)	14	17
Public place (street/park) (%)	-	-
Outdoors (%)	-	17
Car (%)	-	-
Live music event	n.a.	50
Location last used Cocaine	n=5	n=6
Home (%)	20	17
Dealer's home (%)	-	-
Friend's home (%)	40	33
Rave/doof/dance party	20	17
Nightclub (%)	20	33
Pub (%)	-	-
Private party (%)	-	-
Outdoors (%)	-	-
Live music event (%)	-	-
Other	-	-

Source: PDI Regular ecstasy user interviews

6.2 Price

The median price for a gram of cocaine in 2004 was $325 (range $200-400), which is relatively consistent with the median price of $250 (range $200-400) reported by the 2003 sample, considering the relatively small sample sizes across both years and the similar price range. A single respondent reported that the price for a point of cocaine (0.1 gram) was $70. The median price for the last purchase of cocaine was $300 (range $200-400). The majority of respondents reported that the price of cocaine had remained stable in the six months preceding the interview (75%).

Table 21. Price of cocaine purchased by REU and price variations

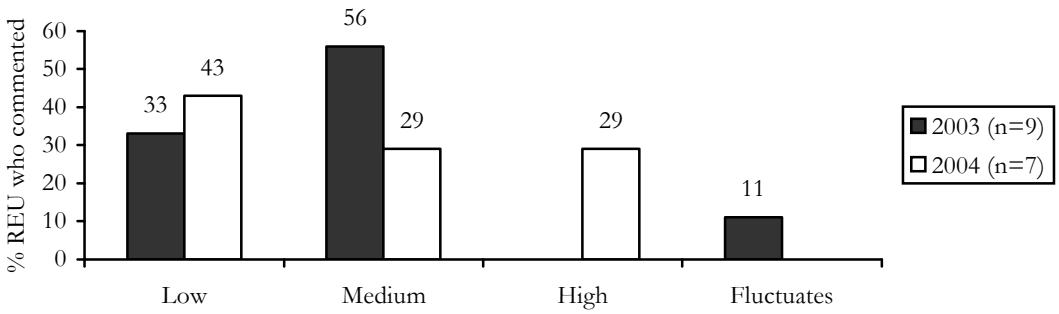
Median Price	2003 sample	2004 sample
Point (0.1 gram)	$65 ($50-80) n=2	$70 (70-70) n=1
Gram	$250 ($200-400) n=9	$325 (200-400) n=8
Last purchase price		
Point (0.1 gram)	$60 n=1	-
Half gram	$125 n=1	-
Gram	$270 n=9	$300 (200-400) n=4
Price change	n=10	n=8
Increased (%)	10	13
Stable (%)	50	75
Decreased (%)	10	-
Fluctuated (%)	30	13

Source: PDI Regular ecstasy user interviews

6.3 Purity

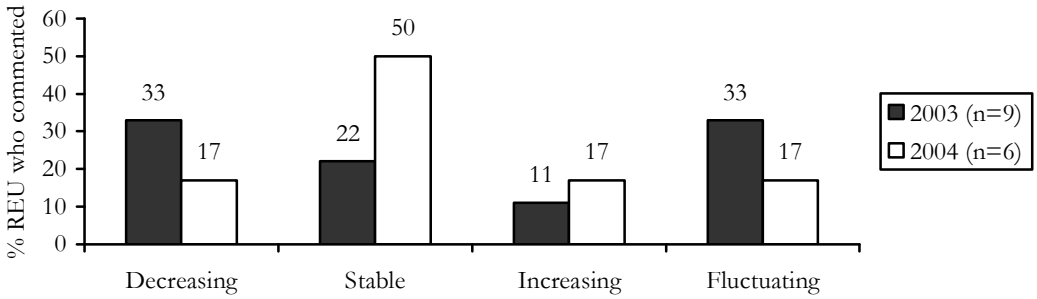
The purity of Cocaine was reported to be variable, with a third of respondents reporting that it was low (43%), medium (29%), and high (29%) in purity in 2004, compared to 2003 where the majority of respondents reported that cocaine was medium (56%) or low (33%) in purity (Figure 19). Half of those who commented on recent changes in the purity of cocaine (50%) reported that that the purity of cocaine had been stable in the six months preceding the interview (Figure 20).

Figure 19. Current purity of cocaine 2003/2004



Source: PDI Regular ecstasy user interviews

Figure 20. Recent change in cocaine purity 2003/2004



Source: PDI Regular ecstasy user interviews

6.4 Availability

Cocaine was reported to be 'difficult' (44%) or 'very difficult' (44%) to obtain and the majority of respondents indicated the availability of cocaine had remained stable (63%) in the six months preceding the interview (Table 22). These estimates are consistent with reports from the 2003 sample, though less people were able to confidently comment on the availability of cocaine in 2004. Respondents had typically obtained cocaine from a friend (67%) at a friend's home (67%) in the last six months or had used but not scored the drug (33%).

Table 22. REU reports of availability of cocaine in the preceding six months

Cocaine variable	2003 sample	2004 sample
Ease of obtaining Cocaine	n=32	n=9
Very easy (%)	3	11
Easy (%)	3	-
Moderately easy (%)	16	-
Difficult (%)	34	44
Very Difficult (%)	44	44
Changes in availability in the last six months	n=23	n=8
Stable (%)	83	63
Easier (%)	4	13
More difficult (%)	9	25
Fluctuates (%)	4	-
Persons Scored from in the last six months	n=5	n=6
Used not scored (%)	-	33
Friends (%)	80	67
Dealers (%	40	17
Locations scored from in the last six months	n=5	
Used not scored (%)	-	33
Own home (%)	-	17
Friends' home (%)	80	67
Dealer's home (%)	20	17

Source: PDI Regular ecstasy user interviews

6.5 Cocaine related harms

6.5.1 Law enforcement

Tasmania Police have reported few seizures or arrests in relation to cocaine between the 1995/96 and 2003/04 financial years apart from two consumer arrests made during the 2000/01 period and one recorded seizure of 1g. The purity of this seizure was reported to be 44.6%. (Australian Bureau of Criminal Intelligence, 1996, 1997, 1998, 1999, 2000, 2001, 2002, Australian Crime Commission, 2003, 2004, 2005).

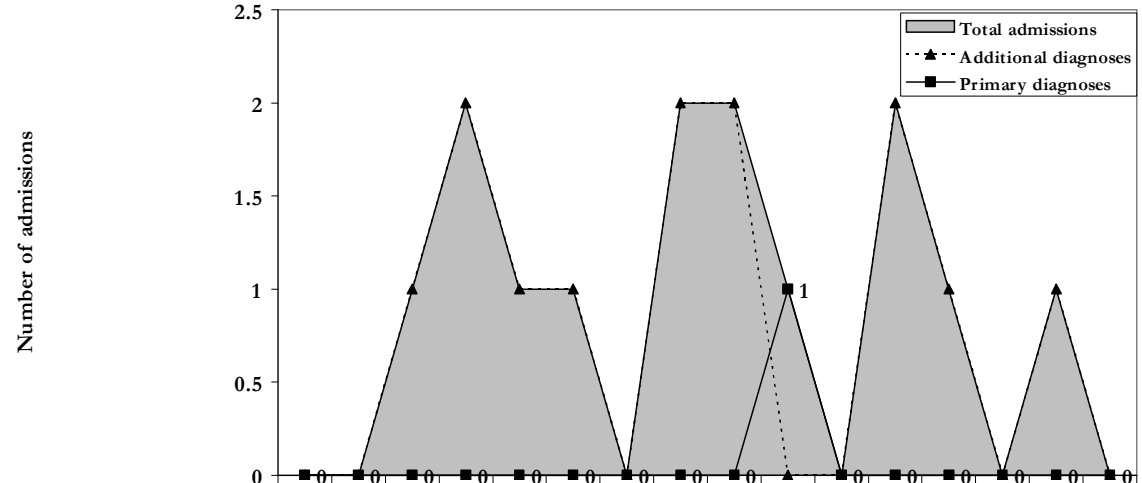
6.5.2 Health

There is no objective data available on mortality or access to treatment providers in relation to cocaine in Tasmania. However, the Australian Institute of Health and Welfare has provided hospital morbidity data in relation to drug use from the year 1999/00 to 2002/03. Diagnoses were coded based on the International Classification of Diseases

(ICD) 10, second edition. A 'principal diagnosis' refers to the instance where it is established upon examination that the drug was principally responsible for the patient's episode in hospital. An 'additional diagnosis' refers to the case where the condition or complaint is co-morbid with the principal diagnosis or arises during the course of the episode in hospital. It is important to note that data from Tasmania's only public detoxification centre was included from June 2002 onwards.

Cocaine related hospital admissions in Tasmania from 1999/00 to 2002/03 were very low (see Figure 21) with only one admission where cocaine was the principal diagnosis in Oct-Dec 2001 and generally one or two admissions where cocaine was an additional diagnosis in each quarter. Further, the rate of cocaine related hospital admissions per million of population are consistently and substantially lower in comparison to the national rate (see Figure 21), remaining at approximately 15 per million compared to between 50 to 100 million from 1999/00 to 2002/03.

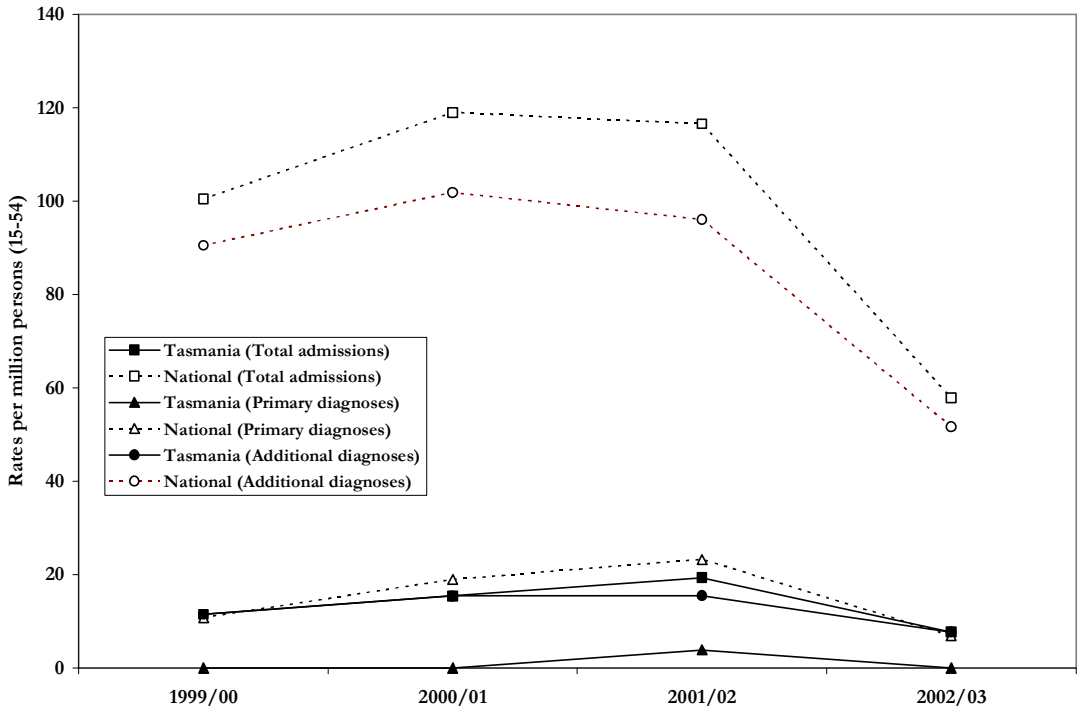
Figure 21. Public hospital admissions where cocaine was noted as a contributing factor toward diagnosis in Tasmania 1999/00-2002/03



	Jul-Sep 1999	Oct-Dec 1999	Jan-Mar 2000	Apr-Jun 2000	Jul-Sep 2000	Oct-Dec 2000	Jan-Mar 2001	Apr-Jun 2001	Jul-Sep 2001	Oct-Dec 2001	Jan-Mar 2002	Apr-Jun 2002	Jul-Sep 2002	Oct-Dec 2002	Jan-Mar 2003	Apr-Jun 2003
Total admissions	0	0	1	2	1	1	0	2	2	1	0	2	1	0	1	0
Additional diagnoses	0	0	1	2	1	1	0	2	2	0	0	2	1	0	1	0
Primary diagnoses	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Source: Australian Institute of Health and Welfare

Figure 22. Public hospital admissions where cocaine was noted as a contributing factor toward diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03



Source: Australian Institute of Health and Welfare

Overdose

None of the regular ecstasy users interviewed indicated that they had recently overdosed on cocaine (see Section 13.1). However, one participant who attributed an overdose episode primarily to alcohol reported also being under the influence of cocaine at this time.

Help seeking behaviour

None of the regular ecstasy users had accessed health services in relation to cocaine use (see Section 13.3).

6.5.3 Other harms

A single participant indicated that they had experienced work/study problems in relation to cocaine use in that they had experienced reduced work performance in the six months preceding the interview (see Section 13.4). This participant had used cocaine twenty times in the preceding six months (or slightly less than weekly) using 1.5 grams in a typical session and 5 grams in their biggest session of use. A single participant had driven soon after (within an hour) of using cocaine in the last six months (see Section 12.4).

One KE who worked in a health profession noted an increase in the number of people injecting cocaine in combination with methamphetamine. However, there is no objective evidence for this among the regular ecstasy users interviewed in the current study.

6.6 Summary of Cocaine Trends

- One third of the regular ecstasy users (32%) had ever used cocaine, but only one tenth (10%) had used cocaine in the six months preceding the interview, which is similar to the proportion reporting recent use among the 2003 sample (7%).
- A greater proportion of males had ever used cocaine in comparison to females
- Cocaine was typically snorted and was used twice on average in the preceding six months with an average of 0.1 to 0.5 grams used in a typical session.
- The price for a gram of cocaine ranged from $200-400 which is consistent with the price range reported in 2003 and had remained stable in the preceding six months.
- Reports on the purity of cocaine were varied and both regular ecstasy users and key experts considered the availability of cocaine to be low in Tasmania which is consistent with the situation reported in 2003.

7.0 KETAMINE

Less than one fifth (18%) of participants had used ketamine at some stage of their lives, which is a reduction in comparison to the 2003 sample (38%). There was no significant difference in the proportion of the male sample (20%) and proportion of the female sample (15%) that had ever used ketamine. The median age of first use was 21 years (range 18-24 years, *SD*=2 years), and there was no significant difference between the average age of first use for males and females. The majority of those that had ever used ketamine had swallowed (61%) or snorted (56%) the drug, and smaller proportions had ever injected (17%, n=3), or smoked (11%, n=2) the drug. The median age of first injection was 19 years (range 18-24 years).

7.1 Ketamine use among REU

Only a small proportion of the sample (5%) indicated that they had used ketamine in the six months preceding the interview, which is less in comparison to the 2003 sample (24%: Table 23). One female (3% of female sample) and four males (7% of male sample) reported recent use of ketamine, but this sex difference was not statistically significant. The majority of those that had recently used ketamine reported either swallowing (80%, n=4) or snorting (60%, n=3) the drug. There were no reports of recent injection of ketamine.

The median frequency of ketamine use was 2 days (range 1-5 days) in the six months preceding the interview or approximately once every three months. There was no significant sex difference in the median frequency of ketamine use. Those who had recently used ketamine reported using a median of 1 bump[5] (range 1-1) or 1 pill (range 1-1) in a typical session of use and a median of 3 bumps (range 1-5) or 1.25 pills (range 1-1.5) in the biggest session of use in the preceding six months. Whereas these quantities are smaller in comparison to those reported in 2003 (Bruno & McLean, 2004), this should be interpreted with caution due to the smaller number of participants reporting ketamine use amongst the 2004 cohort.

Four out of the five respondents that had recently used ketamine commented on the locations that they had typically been when under the influence of the drug (rather than the place of ingestion). The most common locations reported included own home (n=3), friends home (n=2), dance parties (n=2), followed by nightclub, pub, private party and live music event (all n=1). The last location of ketamine use was at private residences such as a friends' home (n=2) or the respondents own home (n=2). There were no reports of people 'typically' using ketamine either when under the influence of ecstasy or when coming down from ecstasy in the six months preceding the interview (see Section 4.1, Table 4), compared to 3% and 2% respectively among the 2003 sample.

[5] Ketamine powder may be used in devices known as 'bump bottles' that facilitate snorting in small amounts of the drug. A single snort, or 'bump', is difficult to quantify, but may approximate 0.05-0.2g.

Table 23. Patterns of ketamine use of REU

Ketamine variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	38	18
Median age of first ketamine use	21 years (range 15-36)	21 years (range 18-24)
Used preceding six months (%)	24	5
Injected in the preceding six months (%)	4	-
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	2.5 (1-24)	2 (1-5)
Median quantities used		
Median bumps used typically in the last six mths	5 (2-5)	1 (1-1)
Median pills used typically in the last six mths	1.25 (0.5-2)	1 (1-1)
Median bumps used in biggest session in the last six mths	10 (2-20)	3 (1-5)
Median pills used in biggest session in the last six mths	5 (2-8)	1.25 (1-1.5)
Locations usually used Ketamine in the last 6 months	n=21	n=4
Home (%)	19	75
Dealer's home (%)	14	-
Friend's home (%)	29	50
Raves/doofs/dance parties	19	50
Nightclub (%)	48	25
Pub (%)	5	25
Restaurant/cafe	-	-
Private party (%)	14	25
Public place (street/park) (%)	-	-
Outdoors (%)	n.a.	-
Car (%)	-	-
Live music event	n.a.	25
Location last used Ketamine	n=21	n=4
Home (%)	19	50
Dealer's home (%)	5	-
Friend's home (%)	24	50
Rave/doof/dance party	10	-
Nightclub (%)	25	-
Pub (%)	-	-
Private party (%)	14	-
Outdoors (%)	n.a.	-
Live music event (%)	n.a.	-

Source: PDI Regular ecstasy user interviews

Over half of the key experts interviewed (n=12) were aware of some use of ketamine in the group of regular ecstasy users that they were familiar with. Estimates of the proportion of the group that used ketamine ranged from 2% to 50%, with a median estimate of 10% (n=12). The frequency of use among these groups was considered to less than monthly (n=4), or 'experimental' or 'one-off' in nature (n=2). KEs indicated that ketamine is generally swallowed in pill (n=5) or liquid form (n=3), or snorted in powder form (n=3). KEs comments on changes in the use of ketamine in the last six months varied, with three KEs noting a decrease in use and three others noting an increase in use among the groups they were familiar with.

7.2 Price

Regular ecstasy users were asked to estimate the market price of ketamine (Table 24). Two participants commented that the price of ketamine was between $25 and $30 for one pill, and single respondents reported that the cost of ketamine was $50 for one point (0.1 of a gram) or $50 for a gram of powder. There were also single reports of $150 for a 100ml vial of ketamine and $300 for a vial of ketamine (amount not specified). When asked about the price of the last ketamine purchase in the six months preceding the interview, one respondent reported purchasing a tablet for $25 and another reported purchasing a 100ml vial for $150. All of those who were able to confidently comment on recent price changes of ketamine (n=3) indicated that the price had been stable over the six months preceding the interview.

Table 24. Price of ketamine purchased by REU

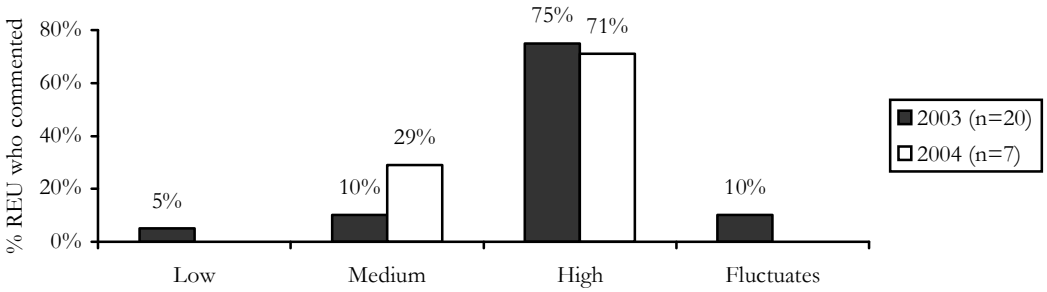
Median Price	**2003 sample**	**2004 sample**
Tablet	$45 ($25-50) n=11	$27.50 ($25-30) n=2
Point (0.1 gram)	$50 ($25-60) n=3	$50 n=1
Gram	$100 ($50-150) n=2	$50 n=1
Vial	-	$300 n=1
Vial (100ml)	-	$150 n=1
Last purchase price		
Tablet	$47.50 ($25-50) n=8	$25 n=1
Point (0.1 gram)	-	-
Half gram	-	-
Gram	-	-
Vial	$60 (50-120) n=3	-
Vial (100ml)	-	$150 (n=1)
Price change	n=14	n=3
Increased (%)	7	-
Stable (%)	79	100
Decreased (%)	7	-
Fluctuated (%)	7	-

Source: PDI Regular ecstasy user interviews

7.3 Purity

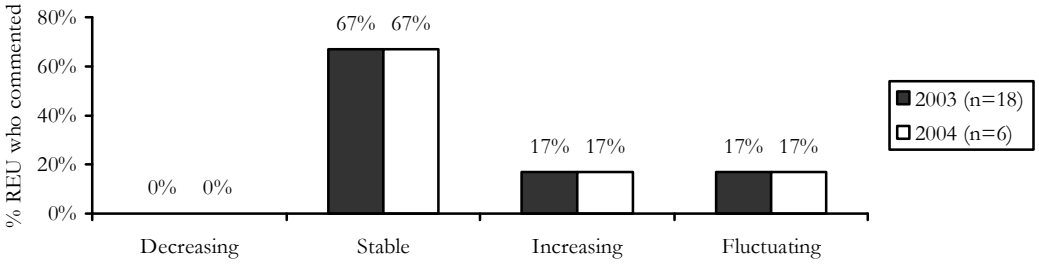
Regular ecstasy users were asked to comment on the current purity of ketamine. Less participants were able to comment on the purity of ketamine (n=7) in comparison to the 2003 sample (n=20). However, the majority of those who commented (71%) indicated that ketamine was high in purity, which is similar to the proportion reporting that ketamine was high in purity among the 2003 cohort (75%: Figure 23). The majority of those who commented indicated that the purity of ketamine had been stable in during the six months preceding the interview (67%: Figure 24).

Figure 23. Current purity of ketamine 2003/2004



Source: PDI Regular ecstasy user interviews

Figure 24. Recent change in ketamine purity 2003/2004



Source: PDI Regular ecstasy user interviews

7.4 Availability

Regular ecstasy users were asked to comment on the availability of ketamine. Less people were able to comment on the ease of obtaining ketamine (n=8) in comparison to the 2003 sample (n=24). Two thirds of those who commented indicated that ketamine was either 'difficult' (50%) or 'very difficult' (13%) to obtain, and one quarter indicated that ketamine was 'easy' to obtain (25%: Table 25). Among the 2003 sample, over half of those who commented indicated that ketamine was moderately easy to obtain (46%), and a smaller proportion indicated that ketamine was difficult to obtain (17%).

Regular ecstasy users were asked who they had obtained ketamine from and at what locations they had obtained the drug. Out of the four people who commented, two had typically obtained ketamine from friends, single participants had typically obtained ketamine from a dealer or an acquaintance, and another had used but not scored the drug. Ketamine was typically obtained from private residences, including a friends' home (n=2), the respondents' own home (n=1), or a dealers' home (n=1). Tasmania police have reported no seizures of ketamine in previous years and thus no objective data on the purity of ketamine in Tasmania over time.

Table 25. REU reports of availability of Ketamine in the preceding six months

Ketamine	2003 sample	2004 sample
Ease of obtaining Ketamine	n=24	n=8
Very easy (%)	8	13
Easy (%)	29	25
Moderately easy (%)	46	n.a.
Difficult (%)	17	50
Very Difficult (%)	-	13
Changes in availability in the last six months	n=24	n=6
Stable (%)	67	67
Easier (%)	21	-
More difficult (%)	5	33
Fluctuates (%)	-	-
Persons Scored from in the last six months	n=25	n=4
Used not scored (%)	-	25
Friends (%)	56	50
Dealers (%)	52	25
Work mates (%)	4	-
Acquaintances (%)	-	25
Unknown persons (%)	-	-
Locations scored from in the last six months	n=25	n=4
Used not scored (%)	-	25
Home (%)	20	25
Friends' home (%)	36	50
Dealer's home (%)	40	25
Rave / doof / dance party (%)	16	-
Nightclub (%)	24	-
Pub (%)	4	-

Source: PDI Regular ecstasy user interviews (Note: The response 'moderately easy' was not included amongst responses in the 2004 questionnaire)

7.5 Ketamine related harms

7.5.1 Law enforcement

In the 2003/04 financial year there were no seizures or arrests reported by Tasmania Police in relation to ketamine (Australian Crime Commission, 2005).

7.5.2 Health

There is no objective data on hospital admissions, or access to treatment providers in relation to ketamine in Tasmania. None of the regular ecstasy users interviewed indicated that they had overdosed on ketamine (see Section 13.1), or had accessed health services in relation to their ketamine use (see Section 13.3)

7.5.3 Other harms

None of the regular ecstasy users had experienced other problems in relation to ketamine use (see Section 13.4). A single participant had driven soon after (within an hour) of using ketamine in the six months preceding the interview (see Section 12.4).

7.6 Summary of Ketamine Trends

- Less than one fifth (18%) of the regular ecstasy using sample reported lifetime use of ketamine and only one in twenty (5%) had recently used ketamine. Ketamine was used on an average of two occasions in the preceding six months in relatively small amounts, indicating predominately experimental use by a small number of people amongst this regular ecstasy consuming cohort.
- Ketamine was typically swallowed or snorted and could be purchased in tablet, powder or liquid form and was considered to be high in purity, with this level of purity regarded as remaining stable in recent months.
- Reports on the price of ketamine were few and varied making it difficult to delineate clear trends in the data.
- The availability and use of ketamine appears to have decreased since 2003, with a substantial reduction observed in lifetime and recent use of ketamine between the two samples, and less respondents able to confidently report on the price, purity and availability of the drug.

8.0 GHB

GHB (gamma-hydroxybutyrate) was initially developed for use as an anaesthetic, and has also been utilised in the treatment of sleep disorders and trialled as a treatment for alcohol and opioid withdrawal. GHB was commonly used in the 1980s by bodybuilders in order to promote growth hormone release and has since become popular as a recreational drug in the dance/club scene in a number of countries. In Australia, GHB may also known as 'GBH', 'grievous bodily harm', 'fantasy', 'liquid ecstasy', 'liquid E' and 'blue nitro'. GHB has received unfavourable mention in the media due to its suspected use in the facilitation of sexual assaults and a recent anecdotal increase in the number of GHB related deaths and overdose. A recent study investigating GHB overdose (Degenhardt, Darke, & Dillon, 2003), found that over half of GHB users interviewed had overdosed at some stage, and that frequency of use and use of alcohol and other drugs in combination with GHB were significant risk factors in GHB overdose. A recent retrospective study of GHB related deaths in Australasia from 2000 -2003 (Caldicott, Chow, Burns, Felgate & Byard, 2004) reported ten confirmed GHB related deaths during this period. Whereas GHB is considered to be particularly dangerous in combination with alcohol, only two GHB related deaths in this study were also associated with use of alcohol.

Less than one tenth of the regular ecstasy using sample had used GHB at some stage of their lives (7%), which is similar to the proportion reported among the 2003 sample (10%). There was no significant difference between the proportion of males (8%) and females (5%) that had ever used GHB. All of those who had ever used GHB had swallowed the drug. The median age of first use of GHB was 20 years (range 17-32 years), and there was no significant sex differences in the age of first use. Several substances such as GBL (gamma-butyrolactone) and 1,4B (1,4 butanediol) are metabolised to GHB following ingestion and may be used as substitutes for GHB (Australian Crime Commission, 2003). There were no reports of use of 1,4B or GBL among the 2004 sample, and a single participant had recently used 1,4B and two had ever tried the drug among the 2003 sample (Bruno & McLean, 2004).

8.1 GHB use among REU

Only three male REUs reported use of GHB in the six months preceding the interview, compared to six participants among the 2003 cohort. All of those who reported recent use of GHB had swallowed the drug. The median frequency of use was one day in the preceding six months (range 1-3), with two participants reporting single occasions of use and one participant having used GHB on three occasions in the preceding six months. Only one of the respondents who had recently used GHB commented on the quantity and location of use, indicating that they had used 300mls of GHB solution, at their own home, on one occasion in the last six months.

All but four key experts commented on GHB use. KEs estimated that between 5% and 20% of the group that they were familiar with used GHB (median estimate of 10%, n=9). KEs indicated that GHB was generally used infrequently (n=3), with estimates ranging from once every two months to once every six months (n=3). Few KEs commented on the dosage of GHB used, though one KE noted that dosage was dependent on the weight of the consumer. Several KEs indicated that the availability of

GHB is quite low (n=3), or that it was not popular in Tasmania (n=3). Whereas some KEs indicated a slight increase in the use (n=4) and availability of GHB (n=2) in the six months preceding the interview, there little evidence for this based on interviews conducted with regular ecstasy users.

Table 26. Patterns of GHB use of REU

GHB variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	10	7
Median age of first use of GHB	22 years (range 16-27)	20 years (range 17-32)
Used preceding six months (%)	6	3
Injected in the preceding six months (%)	-	-
Of those who had used in the preceding 6 mths	n=6	n=3
Median days used last 6 mths (range)	1 (1-1)	1 (1-3)
Median quantities used (ml)		n=1
Median ml used typically in the preceding six mths	-	300mls
Median ml used in biggest session in the preceding six mths	-	300mls
Locations usually used GHB in the last 6 months	n=4	n=1
Home (%)	-	100 (n=1)
Dealers home (%)	-	-
Friends Home (%)	50 (n=2)	-
Rave / doof / dance party (%)	25 (n=1)	-
Nightclub (%)	-	-
Private party (%)	25 (n=1)	-
Location last used GHB	n=4	n=1
Home (%)	-	100 (n=1)
Dealer's home (%)	-	-
Friend's home (%)	25 (n=1)	-
Rave / doof / dance party (%)	50 (n=2)	-
Nightclub (%)	-	-
Private party (%)	25 (n=1)	-

Source: PDI Regular ecstasy user interviews

8.2 Price

A single respondent reported that the price of GHB was $5 for 100mls of solution, compared to one participant in 2003 who reported that 30mls of solution was $10. Both of these reports should be interpreted with caution due to the small number of people responding, and that the potency of illicitly purchased solutions may vary widely. No participants in the 2004 sample could confidently comment on whether the price of GHB had changed in the preceding six months, compared to one participant in 2003 who noted that the price of GHB had been stable.

Table 27. Price of GHB purchased by REU

	2003 sample	2004 sample
Median Price		
100 ml solution	-	$5* n=1
30 ml solution	$10* n=1	-
Price change		
Increased (%)	-	-
Stable (%)	100* n=1	-
Decreased (%)	-	-
Fluctuated (%)	-	-

Source: PDI Regular ecstasy user interviews

8.3 Purity

Only two regular ecstasy users were able to confidently report on the purity of GHB and both reported that it was high in purity and that this had remained stable in the six months preceding the interview. This is similar to the small proportion of people able to comment in 2003 (n=3), two of whom reported that GHB was high in purity, and another who reported that GHB fluctuated in purity (see Bruno & McLean, 2004)

8.4 Availability

Only two regular ecstasy users were able to confidently report on the availability of GHB. One participant reported that GHB was 'very easy' to obtain and that this had been 'stable' in the six months preceding the interview, and the other reported that GHB was 'difficult' to obtain and that it had become 'more difficult' to obtain in the last six months. Regular ecstasy users were asked where they had typically obtained GHB in the six months preceding the interview. Only one respondent who had recently used GHB commented, indicating that they had used but had not scored GHB during this time.

8.5 GHB related harms

8.5.1 Law enforcement

There is no objective data on seizures and arrests in relation to GHB in Tasmania as it is not listed as a separate drug in the illicit drug data reports (Australian Crime Commission, 2004, 2005). However, one law enforcement KE noted anecdotally that there had been one recent seizure of GHB that had been intercepted on its way into Tasmania.

8.5.2 Health

There is no objective data on hospital admissions, or access to treatment providers specifically in relation to GHB in Tasmania. None of the regular ecstasy users interviewed indicated that they had overdosed on GHB (see Section 13.1), or had accessed health services in relation to their GHB use (see Section 13.3).

8.5.3 Other harms

None of the regular ecstasy users had experienced other problems in relation to GHB use (see Section 13.4) or had driven soon after (within an hour) of using GHB in the six months preceding the interview (see Section 12.4). However, one KE was aware of two recent cases in which people had been hospitalised in relation to GHB use and another KE commented on observing particularly impulsive or disinhibited behaviour in some group members that had recently taken GHB.

8.6 Summary of GHB Trends

- Less than one in ten regular ecstasy users (7%) had ever used GHB.
- Of the one hundred regular ecstasy using participants, only three, all males, had used the drug in the preceding six months. These participants had all used the drug orally and only on a total of three or less occasions in the six months prior to interview. As such, this indicates predominantly experimental use by few people.
- There was no lifetime or recent use of GHB-like substances such as 1,4B or GBL among the sample of regular ecstasy users.
- Few participants were able to confidently report on the price, purity or availability of GHB in Tasmania, though key experts generally indicated that the availability, use and popularity of the drug is relatively low.
- There is little objective data on health and other harms with regard to GHB use in Tasmania.

9.0 LSD

Half of the regular ecstasy using sample (51%) had used LSD at some stage of their lives, which is a reduction in comparison to 2003 (62%). A significantly greater proportion of the male sample (66%) had ever used LSD in comparison to the proportion of the female sample (28%), χ^2=13.29, p<.001. All of those who had ever used LSD had taken the drug orally. One person had ever smoked LSD and one person had ever injected LSD (first injection at the age of 21 years). The median age of first use of LSD was 19 years (range 14-32 years, SD=3 years), and there was no significant difference between the first age of use for males (19 years, range 14-32) and females (18 years, range 16-21).

9.1 LSD use among REU

One third (32%) of the regular ecstasy users interviewed had used LSD during the six months preceding the interview, which is 8% more in comparison to 2003 (24%: Table 28). A significantly greater proportion of the male sample (43%) had recently used LSD in comparison to the proportion of the female sample (15%), χ^2=8.11, p=.004, and those that had used the drug had typically been using ecstasy for a greater number of years (4 vs. 2 years), Mann-Whitney *U*=767.0, *p*=.021. All of those who had recently used LSD had taken the drug orally and one participant reported smoking the drug in the six months preceding the interview. Of those who had used LSD in the six months preceding the interview, the median frequency of use was 2.5 days (range 1-12 days), which is greater than the median frequency of use of 1 day (range 1-15) reported in 2003. The number of tabs/drops of LSD used in a typical session was 1 (range 0.25-2.5), which is similar to the median quantity of 1.25 (range 1-2) reported in 2003. The number of tabs used in the biggest session of use in the preceding six months was 1.25 (range 0.25-3.0), which is less in comparison to the median quantity of 3 (range 1-4) in 2003. Only one participant reported that they usually use LSD when under the influence of ecstasy in a typical session of ecstasy use compared to two participants in 2003 (see Section 4.1, Table 4).

Regular ecstasy users were asked which locations they typically went to be under the influence LSD (rather than the location of ingestion). LSD was typically used at private residences such as the respondents' own home (43%), or a friends' home (40%), as well as dance related events (40%), and outdoor locations (30%). Smaller proportions had used LSD at nightclubs (17%), live music events (17%), and private parties (13%). This is relatively consistent with the locations of use reported in 2003, though the proportion of the sample reporting use of LSD at private residences such as their own home or a friends' home as well as nightclubs is slightly higher. The location of last LSD use in the preceding six months was also consistent with locations usually used. The most commonly reported location of last use included: their own home (17%), a friends' home (17%), a nightclub (17%), dance related events (17%) and outdoor locations (13%).

Table 28. Patterns of LSD use of REU

LSD variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	62	51
Median age of first use of LSD	18 years (range 14-25)	19 years (range 14-32)
Used preceding six months (%)	24	32
Injected in the preceding six months (%)	-	-
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	1 (1-15)	2.5 (1-12)
Median tabs/drops used		
Tabs/drops typically used in the last six mths (range)	1.25 (1-2)	1 (0.25-2.5)
Tabs/drops used in biggest session in the last 6 mths (range)	3 (1-4)	1.25 (0.25-3.0)
Locations usually used LSD in the last 6 months	n=27	n=30
Home (%)	28	43
Dealer's home (%)	-	3
Friend's home (%)	24	40
Raves/doofs/dance parties	33	40
Nightclub (%)	-	17
Pub (%)	-	3
Restaurant/café (%)	-	3
Private party (%)	21	13
Public place (street/park) (%)	7	3
Outdoors (%)	n.a.	30
Car (%)	3	-
Live music event (%)	n.a.	17
Other (%)	-	3
Location last used LSD	n=27	n=30
Home (%)	22	17
Dealer's home (%)	4	-
Friend's home (%)	19	17
Rave/doof/dance party	22	17
Nightclub (%)	26	17
Pub (%)	-	3
Restaurant/café (%)	-	3
Private party (%)	7	3
Outdoors (%)	n.a.	13
Live music event (%)	n.a.	7
Other (%)	-	3

Source: PDI Regular ecstasy user interviews

All but five of the key experts were able to comment on the use of LSD in the group of regular ecstasy users that they were familiar with. Estimates of the proportion of these groups that used LSD ranged from 1% to 90%, with a median estimate of 18% (n=14). The majority of those who commented indicated that the paper form of the drug was most often used (n=12), and four KEs commented that the liquid LSD was also used, but to a lesser extent. The majority of estimates of the frequency of LSD use ranged between once a month to once every three months (n=10), however, several KEs indicated that some proportion of these groups use LSD on a weekly (n=1) or fortnightly basis (n=4). Estimates on the quantity of LSD used in a session ranged from 0.5 to 3 tabs (n=6), and two KEs commented that the quantity used generally depended on the strength of the drug.

KEs were asked to comment on any changes in the use of LSD in the six months preceding the interview. Several KEs commented that there had been an increase in the use of LSD in the preceding six months (n=5). However, a reduction in the use of LSD was noted by other KEs, some noting that there was less LSD about (n=2), that there had been decreased use of LSD (n=1) or that the use and availability of LSD had deceased as the use and availability of ecstasy had increased (n=1).

9.2 Price

Regular ecstasy users were asked to estimate the market price for one tab of LSD and to indicate whether this price had changed over the six months preceding the interview. The median price for a tab of LSD was $20 (range $10-50), which is consistent with the median price reported by the 2003 sample. The majority of those who commented on the price of LSD (77%) indicated and has remained stable in the six months preceding the interview.

Table 29. Prices of LSD purchased by REU

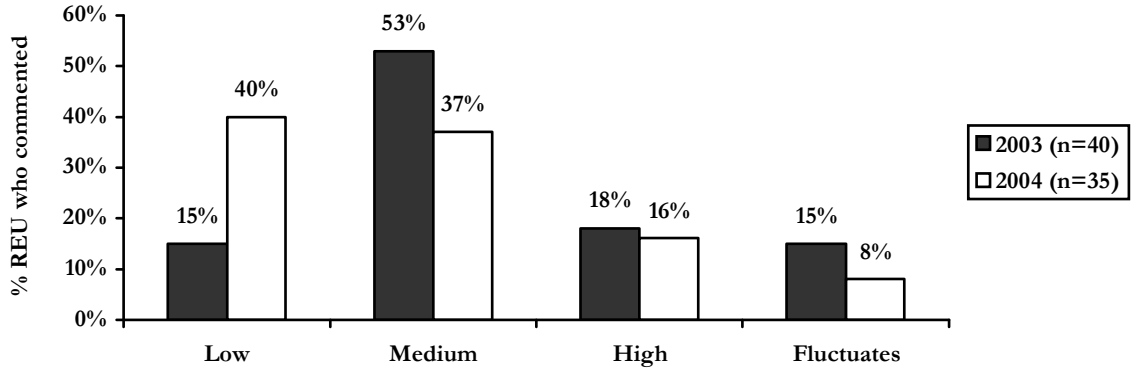
	2003 sample	2004 sample
Median Price		
Tab	$20 ($5-50) n=39	$20 ($10-50) n=40
Last purchase price		
Tab	$20 ($2-40) n=21	$20 ($5-40) n=24
Drop	$20 ($10-20) n=6	-
8 Tabs		$100 n=1
Price change	n=39	n=31
Increased (%)	13	10
Stable (%)	79	77
Decreased (%)	-	3
Fluctuated (%)	8	10

Source: PDI Regular ecstasy user interviews

9.3 Purity

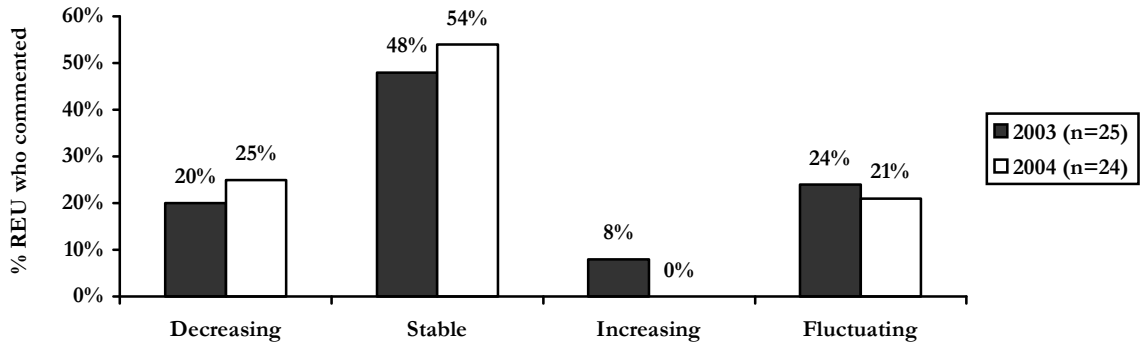
The majority of regular ecstasy users that commented on the purity of LSD indicated that LSD was low (40%) or medium (37%) in purity, with smaller proportions indicating that LSD was high (16%) or fluctuating (8%) in purity (Figure 25). A greater proportion of the sample indicated that LSD was low in purity in comparison to the 2003 sample (40% vs. 15%). Over half of those that commented (54%) indicated that the purity of LSD had remained stable over the six months preceding the interview, with smaller proportions indicating that the purity of LSD had decreased (25%) or fluctuated (21%) during this time (Figure 26).

Figure 25. Current purity of LSD 2003/2004



Source: PDI Regular ecstasy user interviews

Figure 26. Recent change in purity of LSD 2003/2004



Source: PDI Regular ecstasy user interviews

9.4 Availability

Over half of those who commented on the availability of LSD indicated that it is 'difficult' (40%) or 'very difficult' (13%) to obtain (Table 30). However, close to half of those who commented indicated that LSD was 'very easy' (18%) or 'easy' (29%) to obtain. Over half of those that commented (58%) indicated that the availability of LSD had remained stable in the six months preceding the interview, with smaller proportions indicating that it had become more difficult (23%) or easier (13%) to obtain. LSD was typically obtained from friends (67%), and to a lesser extent known dealers (33%), and acquaintances (23%), and was typically obtained from a friends home (53%), the respondents' own home (23%), a dealers' home (20%), or from a dance related event (17%). This pattern is similar to that observed among the 2003 cohort, however, there were no reports of obtaining LSD from a nightclub compared to 24% among the 2003 sample.

Table 30. REU reports of availability of LSD in the preceding six months

LSD variable	2003 sample	2004 sample
Ease of obtaining LSD	n=54	n=38
Very easy (%)	4	18
Easy (%)	13	29
Moderately easy (%)	24	n.a.
Difficult (%)	46	40
Very Difficult (%)	13	13
Changes in availability in the last six months	n=45	n=31
Stable (%)	49	58
Easier (%)	7	13
More difficult (%)	36	23
Fluctuates (%)	9	6
Persons Scored from in the last six months	n=27	n=30
Used not scored (%)	-	10
Friends (%)	74	67
Dealers (%)	30	33
Work mates (%)	4	-
Acquaintances (%)	11	23
Unknown persons (%)	-	7
Locations scored from in the last six months	n=22	n=30
Used not scored (%)	-	10
Home (%)	20	23
Friends' home (%)	36	53
Dealer's home (%)	40	20
Rave /doof/ dance party (%)	8	17
Nightclub (%)	24	-
Pub (%)	4	-
Street (%)	-	7
Agreed public location (%)	-	3
Other	-	3

Source: PDI Regular ecstasy user interviews

9.5 LSD related harms

9.5.1 Law enforcement

Tasmania Police seized 5 tabs of LSD during 2001/02 (all during December, 2001), and 8 tabs during 2000/01 (all during August 2000), compared to 109 tabs during the 1999/00 financial year, all during the summer October-December 1999 quarter. During 2002/03, Tasmania Police (Western District) seized 488 tabs believed to be LSD (and sold as such by the 'dealer') but forensic tests of the seized tabs indicated negative results for any drug. During 2003/04, 31 tabs of LSD, 10.5 grams of psychedelic mushrooms (psilocybin) and 6 'tablets' defined as hallucinogenic were seized by Tasmania Police. The quantities seized are so variable that it is difficult to infer any clear trends in availability for this class of drugs from these figures.

9.5.2 Health

There is no objective data in terms of hospital admissions, mortality, or access to treatment providers specifically in relation to LSD in Tasmania. None of the regular ecstasy users interviewed indicated that they had overdosed on LSD (see Section 13.1), or had accessed health services in relation to their LSD use (see Section 13.3).

9.5.3 Other harms

A single respondent indicated that they had experienced work/study problems in relation to LSD use (see Section 13.4) in that they had experienced reduced work performance. Four respondents indicated that they had driven soon after (within an hour) of using LSD in the six months preceding the interview (see Section 12.4).

9.6 Summary of LSD Trends

- Half of the regular ecstasy users (51%) had used LSD at some stage of their lives. One third (32%) had used LSD in the six months preceding the interview, which is slightly greater in comparison to the 2003 sample (24%).
- A significantly greater proportion of males had ever and recently used LSD in comparison to the proportion of females.
- One tab of LSD was taken orally in a typical session of use. LSD had been used on a median of 2.5 days in the preceding six months which is greater than the median of 1 day reported among the 2003 cohort.
- LSD was typically used at private residences such as own home and friends home as well as dance related events and outdoor locations.
- The median price for one tab of LSD was $20, which has remained stable over the last two years. A greater proportion of users perceived that LSD was low in purity in comparison to 2003.
- There were mixed reports in regard to availability, with it being considered as difficult to obtain by half of respondents and easy to obtain by the other half.

10.0 MDA

One fifth of the regular ecstasy using sample (20%) indicated that they had used MDA at some stage of their lives, which is a reduction in comparison to the 2003 sample (32%). A significantly greater proportion of the male sample (28%) had ever used MDA in comparison to the proportion of the female sample (8%), χ^2=6.05, *p*=.014. The median age of first use was 20 years (range 16-21, *SD*=3 years), and there was no significant difference between the age of first use for males and females. All of those that had ever used MDA had swallowed the drug (100%), and one third (30%) also reported snorting MDA. One male participant reported injecting MDA (5%), and the age of first injection was 16 years.

10.1 MDA use among REU

Less than one fifth (15%) of the sample had used MDA in the six months preceding the interview, compared to 21% in 2003 (Table 32). A significantly greater proportion of the male sample (21%) had used recently used MDA in comparison to the proportion of the female sample (5%), χ^2=4.08, p=.027. All of those who had recently used MDA had taken the drug orally, and a smaller proportion also reported snorting the drug (20%). The median frequency of MDA use was 2 days (range 1-4 days) in the preceding six months, and the majority (80%) had used MDA three times or less in the six months preceding the interview. The two females who had used MDA reported using the drug on only one occasion in the six months preceding the interview. REUs reported using a median of one MDA capsule in a typical session of use and a median of 1.5 capsules of MDA in the biggest session of use in the last six months. Whereas the majority of recent MDA users reported taking capsules, one respondent also reported taking MDA pills on two occasions in the preceding six months, with a median dosage of 2 pills in a typical and biggest session of use.

Regular ecstasy users were asked where they had typically used MDA (to be under the influence of the drug, though not necessarily the location of ingestion) in the six months preceding the interview. The most commonly reported locations of use included the participants' own home (71%), dance related events (57%), friends' homes (43%), or private parties (43%), followed by nightclubs (14%), pubs (14%), and live music events (14%). When asked where they had last used MDA the most common response was dance party (57%), followed by a friends' home (29%), and their own home (14%).

The majority of key experts (n=13) did not comment or were not aware of the use of MDA among the group of ecstasy users that they were familiar with. Those that commented on MDA, indicated that it was used by only 1% to 10% (median estimate eof 5%, n=5) of the group. The majority of those KEs who commented, reported that MDA was usually taken in capsule (n=3) or pill form (n=3), and one KE commented that MDA was usually snorted in powder form. One key expert commented that MDA is often used instead of ecstasy and generally by older people who are better connected.

Table 31. Patterns of MDA use of REU

MDA variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	32	20
Median age first used MDA	20 years (range 16-32)	20 years (range 16-21)
Used preceding six months (%)	21	15
Injected in the preceding six months (%)	-	-
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	2 (1-20)	2 (1-4)
Median quantities used		
Median capsules used typically in the preceding six mths	0.5 (0.5-1)	1 (1-5)
Median capsules used in biggest binge in the preceding six mths	1.25 (0.5-2)	1.5 (1-8)
Locations usually used MDA in the last 6 months	n=21	n=7
Home (%)	14	71
Dealer's home (%)	5	-
Friend's home (%)	24	43
Raves/doofs/dance parties	71	57
Nightclub (%)	43	14
Pub (%)	-	14
Restaurant/cafe	-	-
Private party (%)	14	43
Public place (street/park) (%)	-	-
Car (%)	-	-
Live music event (%)	n.a.	14
Location last used MDA	n=21	n=7
Home (%)	14	14
Dealer's home (%)	-	-
Friend's home (%)	10	29
Rave/doof/dance party	48	57
Nightclub (%)	19	-
Pub (%)	-	-
Private party (%)	5	-
Public place (street/park) (%)	5	-
Live music event (%)	-	-

Source: PDI Regular ecstasy user interviews

10.2 Price

The median price of MDA reported by regular ecstasy users was $40 per capsule (range $35-60), which is $10 less in comparison to price reported by the 2003 sample, where the median reported price was $50 (range $35-60: Table 32). This is consistent with the last purchase price of MDA, which was $40 (range $30-50) in 2004 and $50 (range $40-50) in the 2003 sample. All of those who commented on the price of MDA indicated that this price had been stable in the six months preceding the interview (n=9).

Table 32. Price of MDA purchased by REU

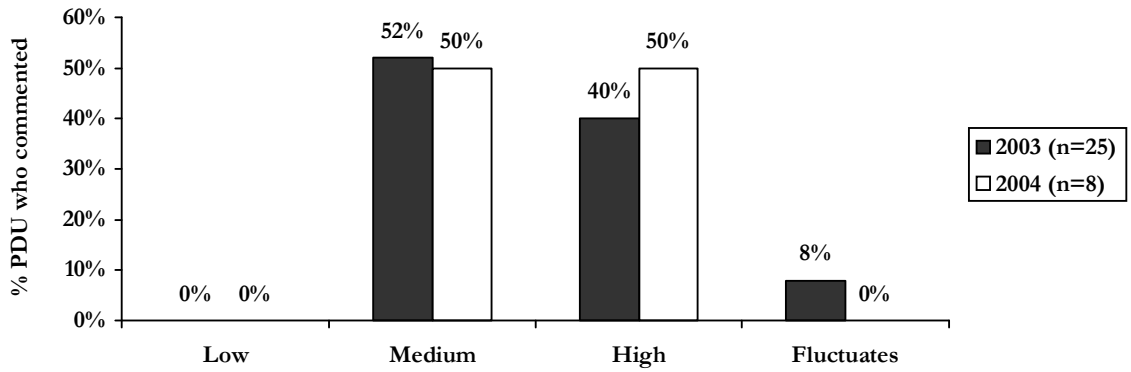
	2003 sample	2004 sample
Median Price		
Capsule	$50 ($35-60) n=15	$40 ($35-60) n=9
Last purchase price		
Capsule	$50 ($40-50) n=11	$40 ($40-50) n=7
Price change		
Increased (%)	-	-
Stable (%)	100 (n= 20)	100 (n=9)
Decreased (%)	-	-
Fluctuated (%)	-	-

Source: PDI Regular ecstasy user interviews

10.3 Purity

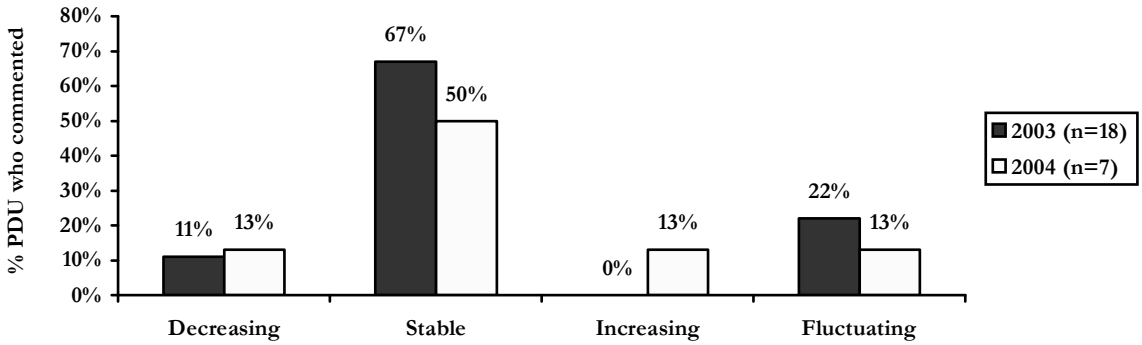
Regular ecstasy users that commented on the purity of MDA indicated that it had been medium (50%) or high (50%) in the six months preceding the interview (Figure 27). Half of those that commented indicated that the purity of MDA had remained relatively stable in the preceding six months, with smaller proportions reporting that it had increased (13%), decreased (13%) or fluctuated (13%: Figure 28). Less people were able to comment on the purity of MDA among the 2004 sample (n=7) in comparison to the 2003 sample (n=25), however, the estimates of purity are relatively similar across the years.

Figure 27. Current purity of MDA 2003/2004



Source: PDI Regular ecstasy user interviews

Figure 28. Change in purity of MDA 2003/2004



Source: PDI Regular ecstasy user interviews

10.4 Availability

The comments of regular ecstasy users with regard to the availability of MDA were relatively mixed with over half (56%) indicating that MDA was easy to obtain, and the remainder (44%) indicating that MDA was relatively difficult to obtain (Table 33). However, less people were able to comment on the availability of MDA (n=9) in comparison to the 2003 sample (n=24). All of those that commented on recent changes in MDA availability indicated that it had been stable during the six months preceding the interview (n=7). Three key experts commented that the availability of MDA was relatively low, and one KE commented that the availability fluctuates.

MDA was typically obtained from friends (86%), and known dealers (43%), with a small proportion (14%) reporting that they had recently obtained MDA from unknown dealers. MDA was typically obtained from a friend's home (86%), their own home (29%) or from a dance related event (14%). In comparison to the 2003 sample, a greater proportion reported obtaining MDA from a friends home (86% vs., 48%), and fewer people reported obtaining MDA from a dealers home (0% vs. 48%). However, these findings should be interpreted with caution due to the relatively small number of participants that commented among the 2004 sample.

Table 33. REU reports of availability of MDA in the preceding six months

MDA variable	2003 sample	2004 sample
Ease of obtaining MDA	n=24	n=9
Very easy (%)	8	-
Easy (%)	25	56
Moderately easy (%)	29	-
Difficult (%)	38	44
Very Difficult (%)	-	-
Changes in availability in the last six months	n=19	n=7
Stable (%)	95	100
Easier (%)	-	-
More difficult (%)	-	-
Fluctuates (%)	5	-
Persons Scored from in the last six months	n=21	n=7
Used not scored (%)	-	-
Friends (%)	71	86
Dealers (%)	57	43
Work mates (%)	-	-
Acquaintances (%)	10	-
Unknown persons (%)	-	14
Locations scored from in the last six months	n=21	n=7
Used not scored (%)	-	-
Home (%)	24	29
Friends' home (%)	48	86
Dealer's home (%)	48	-
Rave /doof/ dance party (%)	24	14
Nightclub (%)	10	-
Pub (%)	-	-
Street (%)	5	-
Agreed public location (%)	-	-

Source: PDI Regular ecstasy user interviews

10.5 MDA related harms

10.5.1 Law enforcement

The Australian Crime commission reports seizures and arrests for drugs classed as phenethylamines which includes MDMA (ecstasy) as well as 3, 4-methylendioxyethylamphetamine (MDEA), 3, 4-methylendioxyamphetamine (MDA) and paramethoxyamphetamine (PMA). Thus there is no data from Tasmania police that relates specifically to MDA, though it is possible that some MDA related seizures and arrests are inadvertently reported in Section 4.7.1 in relation to ecstasy.

10.5.2 Health

There is no objective data available in terms of hospital admissions, mortality, or access to treatment providers specifically in relation to MDA in Tasmania. None of the regular ecstasy users interviewed indicated that they had overdosed on MDA (see Section 13.1), had accessed health services in relation to their MDA use (see Section 13.3)

10.5.3 Other harms

None of the participants had experienced work/study, financial, social, or legal problems that were attributable to MDA use (see Section 13.4). Two respondents indicated that they had driven soon after (within an hour) of using MDA in the six months preceding the interview (see Section 12.4).

10.6 Summary of MDA Trends

- One in five (20%) regular ecstasy users had used MDA at some stage of their lives and less than one fifth (15%) had recently used MDA, which is slightly less in comparison to the proportion among the 2003 sample (21%).
- A greater proportion of the male sample had ever or recently used MDA in comparison to the female sample.
- MDA had typically been used three times or less in the six months preceding the interview, with one capsule consumed orally in a typical session of use.
- Fewer respondents were able to confidently comment on the price, purity or availability of MDA in comparison to the 2003 sample.
- The median price for one MDA capsule was $40 which is $10 less in comparison to 2003 and this price was considered to be stable in the six months preceding the interview.
- MDA was considered to be medium or high in purity and stable over the preceding six months.
- While consumer reports on the availability of MDA were mixed, based on the pattern of MDA use and the comments of several KEs the local availability of MDA appears to be relatively low.

11.0 OTHER DRUGS

11.1 Alcohol

11.1.1 Alcohol use among REU

The entire sample of regular ecstasy users had used alcohol at some stage in their lives. The median age that respondents had first used alcohol was 14 years (range 7-18 years, *SD*=2: Table 34). One respondent had injected alcohol at the age of 15. A large majority of the sample (98%) had used alcohol in the six months preceding the interview, on a median frequency of 48 days (range 6-180 days, *SD*=39), or approximately twice a week. There were no significant differences between males and females in terms of the age that they had first used alcohol or the median days consumed in the preceding six months.

As reported in Section 4.1, a large proportion of the sample typically used alcohol in combination with ecstasy and this seems to have increased in comparison to the 2003 sample (see Table 4). A large majority of the sample (93%) reported using alcohol when under the influence of ecstasy in a typical session, compared to less than three quarters (72%) among the 2003 sample, and over two thirds of the sample (71%) reported consuming more than five standard drinks when under the influence of ecstasy, compared to less than half (45%) among the 2003 sample. Over half the current sample (57%) reported consuming alcohol when coming down from ecstasy compared over one third (39%) among the 2003 sample, and one third (39%) reported consuming more than five standard drinks in a typical session when coming down from ecstasy, compared to less than a quarter (23%) among the 2003 sample.

Table 34. Patterns of Alcohol use of REU

Alcohol variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	100	100
Median age first used alcohol	15 years (range 10-18)	14 years (range 7-18)
Used preceding six months (%)	98	98
Typically use alcohol under the influence of ecstasy (%)	72	93
Typically use > 5 std. drinks under influence of ecstasy (%)	45	71
Typically use alcohol when coming down from ecstasy (%)	39	57
Typically use > 5 std. drinks coming down from ecstasy (%)	23	39
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	48 (1-180)	48 (6-180)

Source: PDI Regular ecstasy user interviews

Key experts estimated that between 90-100% of REUs that they were familiar with used alcohol (n=13), most commonly on one to four occasions per week (n=9). Two KEs reported that 10% of the group that they were familiar with drunk alcohol on a daily basis. Three KEs reported that the groups that they were familiar with tended to drink less alcohol when using ecstasy, and two KEs commented that only 50% of the users they were familiar with generally drink alcohol in combination with ecstasy. However, several KEs (n=4) commented that the use of alcohol in combination with ecstasy had increased in the preceding six months.

11.1.2 Alcohol related harms

Overdose

Alcohol was the main drug attributed to overdose episodes by thirteen out of the eighteen participants who reported overdosing on a drug in the six months preceding the interview (see Section 13.1), and had been used (though not perceived to be the main drug involved) in all but one of the eighteen overdose episodes. Three participants that attributed an overdose episode to alcohol were not under the influence of any other drugs, but the majority indicated that they were also under the influence of other drugs including cannabis (n=5), ecstasy (n=4), methamphetamine powder (n=1) and cocaine (n=1).

Help seeking behaviour

One participant indicated that they had been hospitalised for alcohol overdose in the six months preceding the interview (see Section 13.3).

Driving risk behaviour

Over half of the regular ecstasy users indicated that they had driven soon after (within an hour) of consuming alcohol during the six months preceding the interview. However, it is not possible to determine from the current data whether these participants were over the legal blood alcohol level limit at the time.

Other Problems

Small proportions of the sample of regular ecstasy users had experienced other problems that they attributed, at least in part to their use of alcohol (see Section 13.4). Seven respondents had experienced recent work/study problems, five had recently experienced social problems, and a single participant had experienced recent financial problems in relation to alcohol use. The majority of these problems were relatively minor, however, five out of the seven participants reporting recent work/study problems indicated that they had taken sick leave or had not attended classes due to alcohol use.

11.2 Cannabis

11.2.1 Cannabis use among REU

Almost all (98%) of the regular ecstasy users surveyed had used cannabis at some stage of their lives (Table 35). The median age first cannabis use was 15 years (range 9-22 years, SD=2). There was no significant difference between the average age that males (15.3 years) and females (15.7 years) had first used cannabis. The majority of respondents (91%) reported that they had used cannabis in the six months preceding the interview, and this proportion was similar for males (95%) and females (87%). Most reported smoking cannabis (90%) and over a third (39%) had used cannabis orally. The median frequency of cannabis use during this six month period was 24 days (range 1-180 days), or approximately once a week. The median frequency of cannabis use was significantly greater for males in comparison to females (36 vs. 10 days) in the preceding six months, Mann-Whitney U = 613.0, p=.004. The median frequency of use in the preceding six month period was considerably lower in comparison to the median frequency in 2003 (36 days vs. 24 days). As noted in section 4.1, over one third (41%) of the regular ecstasy users interviewed typically used cannabis when under the influence of ecstasy and two thirds (62%) typically used cannabis when coming down from ecstasy.

Table 35. Patterns of Cannabis use of REU

Cannabis variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	100	98
Median age first used cannabis	15 years (range 9-26)	15 years (range 9-22)
Used preceding six months (%)	99	91
Typically use cannabis under the influence of ecstasy (%)	44	41
Typically use cannabis when coming down from ecstasy (%)	63	62
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	48 (1-180)	24 (1-180)

Source: PDI Regular ecstasy user interviews

All but one of the key experts interviewed estimated some recent use of cannabis among the group of regular ecstasy users that they were familiar with. Estimates of the proportion of these groups that use cannabis ranged from 30% to 100%. Half of the KEs (n=10) indicated that between 70% and 100% of the regular ecstasy users that they were familiar with had used cannabis within the last six months. Reports of the frequency of this cannabis use were varied, ranging from daily to fortnightly. A large proportion of KEs (n=12) indicated that cannabis was generally used at least once a week or more often. The estimated quantity of cannabis used among these groups was also varied, ranging from two "cones" a day (approximately 0.1g or less) to an ounce of cannabis per week. One KE indicated that a greater proportion of males use cannabis in comparison to females.

11.2.2 Cannabis related harms

Law enforcement

Law enforcement data in relation to cannabis can be found in the companion Tasmanian IDRS report for 2004 (Bruno, 2005).

Alcohol and Drug Information Service Data

The Tasmanian Alcohol and Drug Information Service (ADIS) is a telephone information and referral service that is administered by Turning Point Alcohol and Drug Centre in Victoria. Figure 6 in Section 4.7.2 shows that calls in relation to cannabis account for more calls than any other illicit drug. Calls pertaining to cannabis use accounted for between 22% and 29% of all calls made to the service between 2000/01 and 2003/04 reporting periods (see Figure 6, Section 4.7.2).

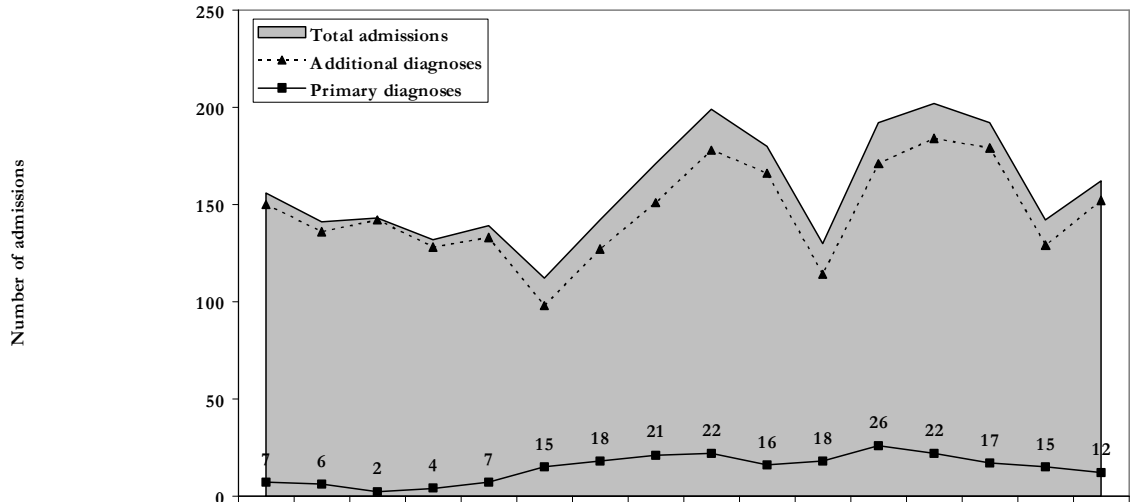
Hospital Morbidity

Hospital morbidity data in relation to use of drugs has been provided by the Australian Institute of Health and Welfare for the 1999/00 to 2002/03 financial year periods. This data relates to public hospital admissions where drug use was recorded as related to the admission. There are two categories for such involvement: the 'principal diagnosis', namely, where the effect of a drug was established, after study, to be chiefly responsible for occasioning the patient's episode of care in hospital; and secondly, the 'additional diagnosis', being a condition or complaint either co-existing with the principal diagnosis or arising during the episode of care. These were figures were based on diagnoses coded according to the International Classification of Diseases (ICD) 10, second edition. It is

also important to note that data from the state's only public specialist detoxification centre is only included in this dataset from June 2002.

Tasmanian public hospital admissions where cannabis was noted as a contributing factor towards diagnosis are presented in Figure 29 below. The trend in this data is that of a slightly increasing number of such cases over time, largely due to cannabis-related additional diagnosis mentions, with the total number of admissions where cannabis is noted rising from around 140 admissions per annum in 1999/00 to 175 in 2002/03. However, the number of admissions where cannabis is noted as part of the primary diagnosis appears to be trending lower in 2002/03 following slight increases between 1999/00 and 2001/02. Comparing the rates of Tasmanian cannabis-related admissions to National admission rates (Figure 30), between 1999/00 and 2002/03, Tasmanian admissions where cannabis is noted as a contributing factor has consistently remained higher than the national rate (120% the national rate between 1999/00 and 2000/01, and 140% the national rate between 2001/02 and 2002/03 in terms of the total number of cases where cannabis is noted). However, the bulk of such admissions are clearly cases where cannabis is noted as a secondary or additional factor in the admission diagnosis. In 2002/03, the Tasmanian hospital admission rate where cannabis is noted as the primary contributing factor was around 255 admissions per million population, just one-tenth that of the total number of admissions where cannabis was noted (2700 admissions per million population in Tasmania), with the rate of admissions where cannabis was noted as the primary factor contributing to admission being approximately 20% above that of the national rate.

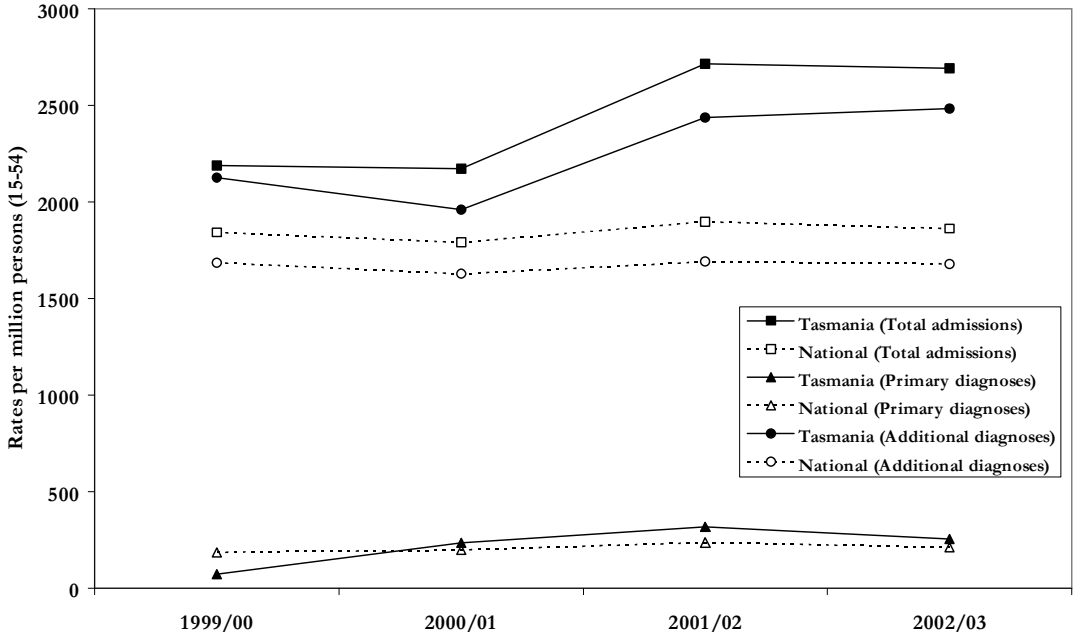
Figure 29. Public hospital admissions where cannabis was noted as a contributing factor toward diagnosis in Tasmania 1999/00-2002/03



	Jul-Sep 1999	Oct-Dec 1999	Jan-Mar 2000	Apr-Jun 2000	Jul-Sep 2000	Oct-Dec 2000	Jan-Mar 2001	Apr-Jun 2001	Jul-Sep 2001	Oct-Dec 2001	Jan-Mar 2002	Apr-Jun 2002	Jul-Sep 2002	Oct-Dec 2002	Jan-Mar 2003	Apr-Jun 2003
Total admissions	156	141	143	132	139	112	142	171	199	180	130	192	202	192	142	162
Additional diagnoses	150	136	142	128	133	98	127	151	178	166	114	171	184	179	129	152
Primary diagnoses	7	6	2	4	7	15	18	21	22	16	18	26	22	17	15	12

Source: Australian Institute of Health and Welfare

Figure 30. Public hospital admissions where cannabis was noted as a contributing factor toward diagnosis, rates per million population for Tasmania and Australia 1999/00-2002/03



Source: Australian Institute of Health and Welfare

Overdose

A single participant indicted that cannabis was the main drug involved in an overdose episode in the six months preceding the interview (see Section 13.1); however, this participant was also under the influence of crystal methamphetamine at the time. Cannabis had also been used (though not the main drug attributed to overdose) in both cases in which ecstasy was attributable to an overdose episode and five out of the thirteen cases in which alcohol was the main drug attributable to an overdose episode.

Help seeking behaviour

One participant indicated that they had accessed a counsellor in relation to cannabis dependence/addiction during the six months preceding the interview (see Section 13.3).

Driving risk behaviour

Half of the respondents (50%) had driven soon after (within an hour) of using cannabis during the six months preceding the interview (see Section 12.5).

Other problems

Over one tenth of participants (14%) had experienced work/study problems during the six months preceding the interview which was attributes to the use of cannabis, one in twenty (5%) had recently experienced social problems, and three participants (3%) had recently experienced financial problems that they attributed primarily to cannabis use (Section 13.4).

11.3 Tobacco

A large proportion (89%) of the regular ecstasy using participants had smoked tobacco at some stage in their lives (Table 36). The median age that tobacco was first used was 14 years (range 7-22 years, *SD*=2.6 years). Three quarters (77%) had smoked tobacco in the six months preceding the interview. Of those who had smoked tobacco in the preceding six months, over half (57% of those who had recently smoked, and 40% of the sample) reported smoking tobacco on a daily basis during this time, and one quarter (25% and 19% of the sample) had smoked tobacco once a week or less.

The findings from the National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2001) estimated that one in five (19.5%) Australians were regular adult smokers in 2001, with one fifth of females and one quarter of males aged 14 years or over describing themselves as regular smokers. The National Health Survey conducted by the Australian Bureau of Statistics in 2001 estimated that 24.4% of Tasmanians over the age of 18 years were currently regular smokers. The estimated proportion of regular smokers among the 18-34 age groups was 39.7% and 29.8% for males and females respectively in 2001. Two in five (40%) of participants had smoked on a daily basis in the current study, which is substantially greater than the estimates of prevalence both nationally and in Tasmania.

There was no significant difference between males or females in terms of the age that they first used tobacco, the number of days that they had smoked tobacco in the preceding six months, or the proportion that had smoked on a daily basis. As reported in Section 4.1, over two thirds (66%) of the sample reported that they typically smoked tobacco in when under the influence of ecstasy, and just over half (51%) typically smoked tobacco when coming down from ecstasy. This pattern of tobacco use is generally consistent with the figures reported among the group of regular ecstasy users interviewed in 2003 (Bruno & McLean, 2004).

Table 36. Patterns of Tobacco use of REU

Tobacco variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	96	89
Median age first used tobacco	15 years range (3-23)	14 years (range 7-22)
Used preceding six months (%)	81	77
Used on a daily basis in the last six months (%)	44	40
Typically use tobacco under the influence of ecstasy (%)	72	66
Typically use tobacco when coming down from ecstasy (%)	56	51
Of those who had used in the preceding 6 mths		
Used on a daily basis (%)	54	57
Used once a week or less (%)	22	25

Source: PDI Regular ecstasy user interviews

All of the key experts noted recent tobacco smoking within the group of regular ecstasy users that they were familiar with, and estimates of the proportion of these groups who had recently used tobacco ranged from 20% to 100%. Half of the KEs (n=10) noted that between 70% and 100% of the group regular ecstasy users that they were associated with had recently smoked tobacco. Seven KEs indicated that the majority of those who had recently used tobacco were daily smokers of the drug. Estimates of the number of cigarettes used by daily tobacco smokers ranged from 3-30 cigarettes per day (n=5). Four KEs noted that some proportion of the group that they were familiar with, *only* used tobacco when under the influence of ecstasy. Five KEs noted that there had been a reduction in tobacco use among the group of ecstasy users that they were familiar with. However, this is not necessarily substantiated by the reports of users, as there is little difference in patterns of use in comparison to the 2003 sample.

11.4 Benzodiazepines

Over one third (34%) of the regular ecstasy users had used benzodiazepines at some stage of their life (Table 37). The median age that respondents had first used benzodiazepines was 20 years (range 8-24 years, *SD*=3 years). The mean age that respondents reported first using benzodiazepines tended to be lower for males (*M*=18 years, *SD*=4 years) in comparison to females (*M*=20 years, *SD*=2 years), $t(32)=1.78$, $p=.084$, though this did reach conventional levels of statistical significance. All of those that reported ever using benzodiazepines had done so orally. One male and one female participant had injected benzodiazepines at some stage of their life, and had first injected the drug at the ages of 17 and 26 years respectively.

A quarter (23%) of the sample had used benzodiazepines in the six months preceding the interview and all had done so orally. A significantly greater proportion of the female sample (37%, n=14) reported recent use of benzodiazepines in comparison to the male sample (15%, n=9), $\chi^2=6.40$, p=.011. A greater proportion of the fulltime student participants in the current study had recently used benzodiazepines in comparison to others (32% vs. 18%), $\chi^2=2.80$, p=.094. One male participant had injected benzodiazepines on a fortnightly basis in the six months preceding the interview. The median frequency of recent benzodiazepine use was 6 days (range 1-96 days, *SD*=29 days) in the preceding six months. Over two thirds (70%) of those who had recently used benzodiazepines had done so on ten or less occasions in the six months preceding the interview. There was no difference in the frequency of recent benzodiazepine use for males and female.

Compared to the 2003 cohort, less participants reported lifetime (34% vs. 52%) and recent (23% vs. 35%) use of benzodiazepines, and whereas the frequency of recent benzodiazepine use was greater for females in comparison to males among the 2004 sample, it was greater for males in comparison to females among the 2003 sample. As reported in Section 4.1, none of the regular ecstasy users typically used benzodiazepines while under the influence of ecstasy, but 13% of the sample reported that they had typically used benzodiazepines when coming down from ecstasy, which is a similar proportion to that reported among the 2003 cohort (17%).

Table 37. Patterns of Benzodiazepine use of REU

Benzodiazepine variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	52	34
Ever injected (%)	7	2
Median age first used benzodiazepines	20 years (range 10-40)	20 years (range 8-24)
Used preceding six months (%)	35	23
Injected in preceding six months (%)	2	1
Typically use benzodiazepines under influence of ecstasy (%)	2	0
Typically use benzodiazepines coming down from ecstasy (%)	17	13
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	6 (1-180)	6 (1-96)

Source: PDI Regular ecstasy user interviews

Eight key experts did not know or were not aware of any benzodiazepine use among the group of ecstasy users that they regularly came into contact with. However, twelve KEs reported that there was some licit (as prescribed) and illicit (use without a prescription) use of benzodiazepines among the groups that they were familiar with. The estimated proportion of these groups that use benzodiazepines ranged from 5% to 70%, with the majority of estimates ranging from 5% to 30% (n=7). Seven KEs indicated that use of benzodiazepines among regular ecstasy users was most common to avoid the 'comedown' or to 'get to sleep' following a session of ecstasy use. The estimated dosage of benzodiazepines under these conditions was 1-2 tablets (n=5), and the estimated frequency of use was monthly to once every three months (n=6). These figures are consistent with the reports of regular party drug users with 13% reporting that they typically use benzodiazepines when coming down from ecstasy, with a median frequency of approximately once a month.

11.5 Antidepressants

Fourteen percent (14%) of the REU sample had used antidepressants at some stage of their life (Table 38). The median age of first use was 20 years (range 17-23 years, SD=2 years). All of those who had used antidepressants had taken them orally. There were no sex differences in the proportion of males and females who had ever used antidepressants, or the age of first use. Four percent of the sample (4%) had used antidepressants in the last six months. The median frequency of antidepressant use was 6 days (range 1-180 days) in the preceding six months. One female and one male participant had taken antidepressants only as prescribed to them by a medical practitioner for the treatment of depression in the last six months. One female participant had taken antidepressants once after consuming alcohol in the preceding six months. One male participant had taken antidepressants once in the preceding six months, but not in relation to any other drug. There were no reports of antidepressant use before, during, or after taking ecstasy. Less respondents had ever used antidepressants in comparison to the 2003 sample (14% vs. 32%), and considerably less people reported recent use of antidepressants (4% vs. 14%).

Table 38. Patterns of Antidepressant use of REU

Antidepressant variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	32	14
Median age first used antidepressants	18 years range 13-44	20 years range 17-23
Used preceding six months (%)	14	4
Typically use antidepressants under influence of ecstasy (%)	1	0
Typically use antidepressants coming down from ecstasy (%)	1	0
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	90 (14-180)	6 (1-180)

Source: PDI Regular ecstasy user interviews

Ten KEs were not aware of or did not know of any antidepressant use among the group of regular ecstasy users that they were familiar with. Several KEs reported that they were aware that some regular ecstasy users took antidepressants as prescribed (n=5), with estimated proportions ranging from 2% to 25% of the group. Higher estimates of use were reported by two KEs (40% and 60%), which may have been a reflection of their occupation within health services. One KE reported that they knew of some people that were taking prescribed antidepressants due to their previous drug use. Only one KE reported that 2-5% of the group that they had regular contact with had used antidepressants recreationally, but with relatively low frequency.

11.6 Inhalants

Amyl Nitrite

Over half (52%) of the sample had ever used amyl nitrite (Table 39). The median age of first use was 20 years (range 14-31 years, *SD*=4 years). One quarter of the sample (23%) had used amyl nitrite during the six months preceding the interview. The median frequency of use was 5 days (range 1-120, *SD*=25), or approximately once every three weeks. Over half (52%) of those that had recently used amyl nitrite had done so on six occasions or less, or less than once a month. There were no sex differences for age of first use, frequency of use, or proportion that had recently used. The median number of amyl nitrite snorts used in a typical session was 3 (range 1-10 snorts) and the median number of snorts in a heavy session of use was 5 (range 1-20 snorts). A small proportion (6%) of the sample typically used amyl nitrite when under the influence of ecstasy, and 2% typically used amyl nitrite when coming down from ecstasy (see also Section 4.1). Less regular ecstasy users reported lifetime (52% vs. 78%) or recent use (23% vs. 43%) of amyl nitrite in comparison to the 2003 sample. The median number of snorts used in a typical session (3 snorts vs. 5 snorts), and the proportion of users had used amyl nitrite in a typical session of ecstasy use (6% vs. 12%) were also less in comparison to the 2003 sample.

Table 39. Patterns of Amyl nitrite use of REU

Amyl nitrite variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	78	52
Median age first used amyl nitrite	20 years range 16-43	20 years range 14-31
Used preceding six months (%)	43	23
Number of snorts used in a typical session in last six months	5 (1-40)	3 (1-10)
Number of snorts used in biggest session in last six months	5 (1-300)	5 (1-20)
Typically use amyl nitrite under influence of ecstasy (%)	12	6
Typically use amyl nitrite coming down from ecstasy (%)	2	2
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	3 (1-72)	5 (1-120)

Source: PDI Regular ecstasy user interviews

Eight key experts were able to comment on the use of amyl nitrite among the group of ecstasy users that they had regular contact with. It was estimated that between 5% and 75% of these groups use amyl nitrite, with the majority of these estimates ranging from 5% to 30% (n=6). Key experts that commented on the frequency of this use estimated that amyl nitrite was used monthly or less (n=4), and dosage estimates ranged from 2-10 snorts (n=2). Three key experts commented that the use of amyl nitrite had decreased, two stating that it was less popular and not 'cool' anymore. One key expert commented that amyl nitrite was more popular within the gay and lesbian community.

Nitrous oxide

Over half (57%) of the regular ecstasy users had used nitrous oxide at some stage of their lives (Table 40). The median age of first use was 19 years (range 12-28 years, *SD*=3 years), which was similar for males and females. A third of the respondents (34%) had used nitrous oxide in the six months preceding the interview, which is slightly more than in 2003 (25%). The median frequency of use during this time was 3 days (range 1-24, *SD*=7 days), or approximately once every two months. Three quarters of those who had recently used nitrous oxide (76%) had done so on six or less occasions. A greater proportion of the male sample (41%) had recently used nitrous oxide in comparison to the female sample (27%), χ^2=3.40, p=.084. The median frequency of recent nitrous oxide use tended to be greater for females (5 days, range 1-24 days) in comparison to males (3 days, range 1-20 days), Mann-Whitney U = 989.0, p=.093. However, this did not reach conventional levels of statistical significance. The median number of bulbs used in a typical session was 4 (range 1-50 bulbs) and the median number used in a heavy session of use was 6 (range 1-20 bulbs), which is slightly less in comparison to the 2003 sample (10 bulbs, range=1-24 bulbs). Small proportions of the sample typically used nitrous oxide when under the influence of ecstasy (4%), and when coming down from ecstasy (2%). A single participant attributed an overdose episode to nitrous oxide (see Section 13.1), indicating that they were also under the influence of alcohol at the time.

Table 40. Patterns of Nitrous oxide use of REU

Nitrous oxide variable	2003 sample (n=100)	2004 sample (n=100)
Ever used (%)	47	57
Median age first used nitrous oxide	19 years range 12-30	19 years range 12-28
Used preceding six months (%)	25	34
Typically use nitrous oxide under influence of ecstasy (%)	4	4
Typically use nitrous oxide coming down from ecstasy (%)	1	2
Of those who had used in the preceding 6 mths		
Median days used last 6 mths (range)	4 (1-50)	3 (1-24)
Number of bulbs used in a typical session in last six months	6 (1-12)	4 (1-50)
Number of bulbs used in biggest session in last six months	10 (1-24)	6 (1-20)

Source: PDI Regular ecstasy user interviews

Ten key experts were able to comment on the use of nitrous oxide in the group of ecstasy users that they had regular contact with. Estimates of the proportion of these groups that used nitrous oxide ranged from 5% to 100% (median estimate of 15%). The frequency of nitrous oxide was estimated to be fortnightly or less (n=6), and the number of bulbs used per session was estimated to range from 5 to 30 bulbs (n=4). Three key experts commented that the use of nitrous oxide had decreased, two stating that it was less popular and not 'cool' anymore. However, there was greater level of recent use, and a greater frequency of such use of nitrous oxide amongst the 2004 sample in comparison to the 2003 cohort.

11.7 Heroin

A small proportion of the sample (4%) had ever used heroin (3 males and 1 female). One female and two males (3%) had injected heroin, two males (2%) had smoked heroin, and one male had swallowed the drug. The median age of first heroin use was 20 years (range 16-26 years, *SD*=4), and the median age of first injection was 21 years (16-26 years, *SD*=5). The proportion of the sample that had ever used heroin was considerably lower among the 2004 sample (4%), in comparison to the 2003 sample (20%), Further, there were no reports of heroin use in the six months preceding the interview, compared to 6% among the sample in 2003 (Bruno & McLean, 2003).

Only four key experts were aware of heroin use within the population of regular ecstasy users that they had regular contact with. Estimates of the proportion of the population who used heroin ranged from 1% to 5%, and frequency of heroin use was estimated to be low. The remaining key experts were not aware of any heroin use within their ecstasy reference group and three key experts commented that heroin is not generally used within the ERD using population.

11.8 Methadone

Two male regular ecstasy users (2%) had ever used methadone. Both had injected and swallowed methadone in the six months prior to the interview. Methadone was first used and injected by these individuals at age 17 and 19 years. One participant was in methadone treatment and reported using methadone every day and injecting on 72 occasions (three times a week) during the six months preceding the interview. The other reported using methadone twice during this time, injecting it once and swallowing it once. Two participants reported accessing health services in relation to methadone use (see Section 13.3), one had accessed a GP, and another an AOD worker, both in relation to methadone addiction/dependence.

Four key experts commented that a small proportion of the regular ecstasy users that they were familiar with (1% to 10%, median estimate of 3%), regularly swallowed a maintenance dose of licit (prescribed) methadone. Three key experts commented that some proportion of these groups used illicit (non prescribed) methadone (2% to 25%, median estimate of 10%). The use of illicit methadone was considered to be rare (less than monthly). One key expert commented that a small proportion (2%) of ecstasy users would occasionally (less than monthly) swallow illicit methadone (40mls or less) to manage the effects of coming down from ecstasy.

11.9 Buprenorphine

There were no reports of buprenorphine use in the sample of regular ecstasy users, compared to a small proportion who reported ever using (5%) and recently using (3%) among the 2003 sample (Bruno & McLean, 2004).

11.10 Other opiates

'Other opiates' comprise a broad drug class including over the counter pharmaceuticals such as codeine, restricted pharmaceuticals such as morphine and alkaloid poppy plant derivatives such as opium or 'poppy wash'. One fifth (19%) of the regular ecstasy using sample had used some form of 'other opiate' at some stage of their lives. A greater proportion of males (23% of male sample) had ever using other opiates in comparison to females (13% of female sample), though this difference did not reach conventional levels of statistical significance. The median age of first opiate use was 19 years (range 16-27 years, *SD*=3 years), and this was similar for males (19 years) and females (18 years). Most participants had swallowed other opiates (15%), and smaller proportions had smoked other opiates (9%). One male and one female participant (2%) had ever injected other opiates, and both had first done so at the age of 17 years.

A small proportion (8%) of the sample had used other opiates in the six months prior to the interview (3 females and 5 males). Those that had used other opiates during this time had done so orally (8%), and two male participants (2%) had smoked other opiates in the last six months. There were no reports of recent intravenous use of other opiates. The median frequency of use was 11 days (range 3-48 days, *SD*=15). Two thirds of those who had recently used other opiates (63%) had done so on 12 days or less (fortnightly or less)

during this period. One individual typically used other opiates when under the influence and when coming down from ecstasy (see Table 4).
A smaller proportion of the sample had ever (19% vs. 35%) or recently used (8% vs. 13%) other opiates in comparison to the 2003 sample (see Bruno & McLean, 2004). There were no reports of recent injection of other opiates, but a small proportion of the 2003 sample (8%) had recently injected other opiates. Whereas, the median frequency of other opiates use was greater in 2004 (11 days) in comparison to 2003 (6 days), the 2004 figures are based on a smaller sample size.

11.11 Pharmaceutical Stimulants

Over one third of the regular ecstasy using sample (39%) had used pharmaceutical stimulants at some stage of their lives. There was no significant difference between the proportion of the male sample (41%) and the proportion of the female sample (36%) that had ever used pharmaceutical stimulants. The median age of first use was 19 years (range 7-31 years), and there was no significant difference between the age of first use for males and females. The majority of those that had ever used pharmaceutical stimulants had swallowed the drug (92%), and smaller proportions had ever snorted (33%), smoked (8%) or injected (8%) the drug. Of the three respondents who reported ever injecting pharmaceutical stimulants the median age of first injection was 20 years (range 15-25 years).

More than one tenth of the sample (14%) had used pharmaceutical stimulants in the six months preceding the interview. There was no significant difference in the proportion of the male (15%) and female (13%) samples that had recently used pharmaceutical stimulants. The majority of those who had recently used pharmaceutical stimulants had taken the drug orally (86%), and smaller proportions had snorted (50%), injected (14%) or smoked (7%) the drug. The median frequency of use was 3 days (range 1-180), and there was no significant sex differences in terms of the median frequency of use. Although key experts were not specifically asked about the use of pharmaceutical stimulants, two KEs commented that dexamphetamine was also used by regular ecstasy users.

Table 41. Patterns of pharmaceutical stimulant use of REU

Pharmaceutical stimulant variable	2004 sample (n=100)
Ever used (%)	39
Median age of first use	19 years (range 7-31)
Used preceding six months (%)	14
Injected in the preceding six months (%)	2
Of those who had used in the preceding 6 mths	
Median days used last 6 mths (range)	3 (1-180)
Median quantities used (tablets)	
Median tablets used typically in the preceding six months	4 (range 1-15)
Median tablets used in biggest binge in the preceding six mths	4 (range 1-15)

Source: PDI Regular ecstasy user interviews

11.12 Psychedelic Mushrooms

Sixty percent (60%) of the REU sample had ever used psychedelic mushrooms compared to 58% in 2003 (Bruno & McLean, 2004). A significantly greater proportion of males (91% of the male sample) had ever used psychedelic mushrooms in comparison to females (54% of female sample), χ^2=14.15, p<.001. The median age that mushrooms had first been used was 20 years (range 14-25 years, SD=2 years), and this was similar for males (20 years) and females (19 years). All of those who had ever used psychedelic mushrooms had used them orally, and two participants (3%) indicated that they had smoked mushrooms. Over one third of the sample (41%) had used mushrooms in the preceding six months compared to 38% among the 2003 sample (Bruno & McLean, 2004). There was no significant difference in the proportion of males (46% of male sample) and proportion of females (32% of female sample) that had recently used psychedelic mushrooms. All of those who had used mushrooms in the last six months done so orally; and two participants (5%) had recently smoked mushrooms.

The median frequency of mushroom use was 3 days (range 1-48 days, *SD*=8) in the preceding 6 months, or approximately once every two months. Further, over two thirds of those who had recently used mushrooms (61%) had done so on 3 or fewer days in the last six months. The median frequency of mushroom use tended to be greater for males (3 days, range 1-48) in comparison to females (2 days, range =1-10), Mann-Whitney *U* = 280.5, *p*=.097. However, this comparison did not reach conventional levels of statistical significance. Over one third of those that had recently used psychedelic mushrooms (42% and 17% of the sample) had also recently used LSD and the majority of these were male (82%). Over half of the sample (56%) had used some form of psychedelic (either LSD or mushrooms) in the last six months, compared to 49% among the 2003 cohort (see Bruno & McLean, 2004).

Seven key experts commented on recent use of psychedelic mushrooms among the group of regular ecstasy users that they had regular contact with. Estimates of the proportion of these groups that used psychedelic mushrooms ranged from 2% to 60% (median estimate of 15%). Mushrooms were thought to be either eaten raw, cooked on toast, or boiled into a tea. All seven of these key experts indicated that the use of psychedelic mushrooms varied due to seasonal changes in availability, and four KEs noted that here had been a recent increase in use due to a seasonal increase in availability. Five regular ecstasy users also noted a recent increase in the use psychedelic mushrooms among themselves or friends, again attributing this to a seasonal increase in availability.

11.13 Other drugs

Three regular ecstasy users had swallowed travel sickness pills (travel calms/avils) recreationally at some stage of there lives. The median age of first use of travel sickness pills was 17 years (range 16-17 years). Two respondents had swallowed Datura (*Solanaceae Datura spp.*) at some stage of their lives, first using the drug at the ages of 17 and 24 years. A single respondent had inhaled some aerosol spray at some stage of their lives, first inhaling the drug at 15 years of age. There was no reported use of any of these substances during the six months preceding the interview.

A single respondent had swallowed PCP (phencyclidine) on a single occasion in the last six months. PCP had first been used by this participant at 20 years of age. PCP is closely related to ketamine and was originally used as a dissociative anaesthetic but has been used recreationally since the late 1960's (Erowid, 2005).

Three regular ecstasy users had used cough syrup or dextromethorphan (DXM) for 'non-medicinal' purposes at some stage of their lives. The median age of first use was 18 years (range 16-20). Two respondents had used cough syrup orally for recreational purposes during the six months preceding the interview. One respondent reported using cough syrup once and the other 10 times in the preceding six months. The use of DXM in combination with ecstasy and/or antidepressants is potentially dangerous (Erowid, 2005). However, it is not known whether DXM was taken in combination with ecstasy by the regular ecstasy users in the current study.

Several respondents indicated that they had recently used other chemicals within the phenethylamine class during the six months preceding the interview. A single participant had used mescaline (3,4,5-trimethoxy-ß-phenethylamine) on two occasions during the six months preceding the interview. Mescaline is a hallucinogenic drug that is naturally occurring in many cacti plants such as peyote and can also be synthetically produced (Erowid, 2005). A single participant had used 2CB (4-bromo-2,5-dimethoxyphenethylamine) on one occasion during the six months preceding the interview. There was also some use of 2CB among the 2003 cohort, with four participants having ever tried 2CB, and a single participant having recently used 2CB (Bruno & McLean, 2004). 2CB is a synthetic chemical in that is related structurally to mescaline and distantly to MDMA. 2CB first gained popularity as a legal ecstasy replacement in the US in the mid-1980s. It is generally considered to provide a psychedelic experience which is somewhat 'gentler' than LSD or mushrooms, being less prone to producing 'bad trips' or anxiety at recreational use levels (Erowid, 2005).

There was also use of research chemicals among the participants interviewed, in particular the synthetic chemical 2C-I. Research chemicals or 'experimental chemicals' refer to relatively new substances that have not necessarily been formally studied and are still being researched. As such, very little is known about the effects and risks of using these drugs and there have been few animal or human toxicology studies or studies looking at issues such as long term problems, side effects, addiction/dependence, allergic reactions, acute overdose, and interactions with other drugs. In many countries, research chemicals are not controlled substances and can often be purchased through chemical supply companies for 'research' purposes (Erowid, 2005).

2C-I (2, 5-Dimethoxy-4-Iodophenethylamine)
2C-I has only been available as a research chemical since 2002. It belongs to the phenethylamine class of chemicals and is structurally related and has similar effects to 2CB, but may be more potent. As with MDMA, 2C-I should not be taken with MAOI antidepressants. 2C-I is not currently a controlled substance in Australia but may be scheduled sometime in 2005 (Erowid, 2005).

Five REU (5%) had used 2C-I at some stage of their lives. The median age of first use of 2C-I was 22 years (range 17-25). All of these respondents had used 2C-I in the six months preceding the interview, with all indicating that they had swallowed the drug and one person reporting that they had smoked the drug. The median frequency of use in the preceding six months was 1 day (range 1-2 days), indicating predominantly experimental

use. Six REU noted an increased use of 2C-I among their group of friends and two REU noted recent bad experiences in relation to friends that had used 2C-I.

Three key experts noted that there had been some infrequent use of 2C-I in the group of regular ecstasy users that they were familiar with. 2C-I was noted to be available in either powder (n=2) or pill (n=2) form. Two key experts noted that particular batches of pills that were sold as ecstasy (one recently in 2004, and one in 2003) were rumoured to contain 2C-I, though there is no objective evidence to support this. One KE noted that there had been an increase in use of 2C-I in the preceding six months and another noted that 2C-I had been more frequently 'talked about and acknowledged' by consumers recently.

Trypstasy (2,5-dimrthoxy-4-(n)-propylthiophenethylamine)
A single participant indicated that they had recently used trypstasy on a single occasion during the last six months. Trypstasy is a common name for the phenethylamine research chemical 2C-T-7 which first became popular as a recreational drug during the late 90's. Trypstasy was not a scheduled drug in the US until several fatalities resulted in it being scheduled by emergency ruling in 2002. 2C-T-7 is not currently a controlled substance in Australia but may be scheduled sometime in 2005 (Erowid, 2005).

11.14 Summary of other drug use

- The majority of regular ecstasy users had recently consumed alcohol on median of two days per week in the six months preceding the interview. The proportion of users who typically use more than five standard drinks under the influence (71% vs. 45%) and when coming down (39% vs. 23%) from ecstasy is greater in comparison to the 2003 sample.
- Ninety one percent had recently used cannabis on a median of one day per week compared to the median of two days per week amongst the participants interviewed in 2003. The frequency of use was greater for males in comparison to females. Two thirds of the sample had typically used cannabis when coming down from ecstasy.
- Tobacco had recently been used by three quarters of the sample. Over half of these participants had smoked tobacco on a daily basis in the last six months, and others had smoked tobacco less frequently. Two thirds of the sample had typically smoked tobacco when under the influence of ecstasy. The proportion of daily smokers amongst the current sample of participants was greater in comparison to both national and Tasmanian estimates of prevalence.
- Almost one quarter of the sample had recently used benzodiazepines, with the drug used on a median of one day per month in the last six months. Recent use of benzodiazepines was more common among females in comparison to males and was typically used, by 13% of the sample, when coming down from ecstasy.
- One quarter of the sample (23%) had recently inhaled amyl nitrite which is a substantial reduction in comparison to the level of use reported among the 2003 cohort. Several KEs indicated that the use of amyl nitrite had decreased in recent months. The proportion of regular ecstasy users that had recently used nitrous oxide (35%) was slightly greater in comparison to 2003 (25%). Nitrous oxide had been used relatively infrequently with three quarters using less than monthly.
- Fourteen percent had recently used pharmaceutical stimulants (such as dexamphetamine or methylphenidate), at a median frequency of approximately once every two months.
- Only four participants had recently used antidepressants and there was less recent use of antidepressants among the sample in comparison to 2003. Two participants had taken antidepressants as prescribed and two others had used antidepressants on single occasions.
- Only small proportions of the sample had recently used methadone (2%), or 'other opiates' such as morphine, pethidine and opium (8%) and there was no recent use of heroin or buprenorphine. There was less use of these drugs in comparison to the 2003 sample.
- Over one third of the sample had recently used psychedelic mushrooms. Mushrooms had been used on a median of once every two months during the six months preceding the interview. Both regular ecstasy users and KEs indicated a recent increase in the use of psychedelic mushrooms due to seasonal increase in availability. Over one half of the sample (56%) had recently used some form of psychedelic drug (either LSD and/or mushrooms) in the last six months, compared to almost half (49%) among the 2003 cohort.
- Recent increased experimental use of the research chemical 2C-I was noted by both regular ecstasy users and KEs, with five regular ecstasy users indicating that they had recently but infrequently used the drug. Use of this drug was not noted among the 2003 participant sample.

12.0 RISK BEHAVIOUR

12.1 Injecting risk behaviour

12.1.1 Lifetime injecting patterns

Over one tenth of the regular ecstasy using sample (15%) had used substances intravenously at some stage of their lives, which is a reduction in comparison to the 2003 sample (26%: Bruno & McLean, 2004). In the current cohort, a median of 2 drug types (range 1-9) had ever been injected (Table 42). The drugs most commonly injected drugs were methamphetamine (87% powder, 47% base, 33% crystal), followed by ecstasy (40%), cocaine (40%), pharmaceutical stimulants (20%), heroin (20%), and ketamine (20%: Table 42). Smaller proportions had ever injected other opiates (13%), methadone (13%), benzodiazepines (13%), LSD (7%), MDA (7%), and alcohol (7%). There was no significant difference between the proportion of the male sample (12%, n=7) and the proportion of the female sample (21%, n=8) that had ever injected, and no significant difference between the mean age of those who had (24 years, *SD*=3.6) or had not injected (23 years, *SD*=2.9). Those who reported lifetime injecting drug use had used a significantly greater median number of drug types ever (11 vs. 7 drug types), Mann-Whitney *U*=237.5, *p<.001*, and in the preceding six months (7 vs. 6 drug types), Mann-Whitney *U*=327.0, *p*=.003, in comparison to those that had not ever injected.

Table 42. Injecting drug use among lifetime injecting drug users (n=15)

	Ever used % (n)	Ever injected % (n)	First drug injected % (n)	Median age first injected (range)
Powder	100 (15)	87 (13)	73 (11)	18 (15-29)
Base	53 (8)	47 (7)	7 (1)	20 (17-29)
Ice	60 (9)	33 (5)	7 (1)	20 (18-27)
Heroin	20 (3)	20 (3)	-	21 (16-26)
Ecstasy	100 (15)	40 (6)	-	19 (17-22)
Cocaine	67 (10)	33 (5)	7 (1)	21 (17-23)
Ketamine	40 (6)	20 (3)	-	19 (18-24)
Other opiates#	60 (9)	13 (2)	7 (1)	18 (17-19)
Methadone	13 (2)	13 (2)	-	17 (17-17)
Benzodiazepines	53 (8)	13 (2)	-	20 (15-25)
Pharmaceutical Stimulants	60 (9)	20 (3)	-	20 (15-25)
LSD	73 (11)	7 (1)	-	21 (n=1)
MDA	20 (3)	7 (1)	-	16 (n=1)
Alcohol	100 (15)	7 (1)	-	15 (n=1)

Source: PDI Regular ecstasy user interviews (# Includes codeine, morphine, pethidine and opium)

Context of initiation to injecting

Three quarters of those who had ever injected had first injected methamphetamine (74% powder, 7% base, 7% crystal), followed by cocaine (7%), and other opiates (7%: Table 42). One third of those who had ever injected (33%, n=5) were under the influence of other drugs the first time that they had injected. The most common drug used preceding first injection was alcohol (n=4), followed by methamphetamine powder (n=1), ecstasy (n=1), and cocaine (n=1: Table 42). Three quarters had learnt how to inject from a friend or partner (73%). Smaller proportions had learnt to inject from other users (20%), websites (7%), information pamphlets (7%), and indirectly from a health professional (7%). A further 13% indicated that they did not inject themselves.

12.1.2 Recent injecting patterns

Less than a tenth of the sample (9%) had injected a drug in six months prior to the interview, compared to one fifth (22%) among the 2003 cohort (Bruno & McLean, 2004). There were no age or sex differences between those who had or had not recently injected. Those who had recently injected had used a significantly greater number of drug types ever (12 vs. 8), Mann-Whitney U =109.00, $p<.001$, and in the last six months (8 vs. 6), Mann-Whitney U =124.5, p=.001, compared to those that had not. The median number of drug types injected in this six month period was 1 (range 1-4), and over three quarters of those who had injected in the preceding six months (78%) had injected only one drug type. The most frequently injected drug was methamphetamine (67% powder, 67% base, 11% crystal), followed by methadone (22%), pharmaceutical stimulants (22%), ecstasy (11%), cocaine (11%), and benzodiazepines (11%: Table 43). Similarly, over three quarters of those who had recently injected (77%) had last injected methamphetamine (44% powder, 33% base), followed by ecstasy (11%) and benzodiazepines (11%). Methamphetamine powder had been injected on a median of 8 days (range 1-24) in the preceding six months or slightly more than monthly, and methamphetamine base had been injected in a median of 6 days (range 2-24 days), or approximately monthly.

Table 43. Recent injecting history among recent injecting drug users (n=9)

	Used in last 6 mths % (n)	Days used last 6 mths (range)	Injected last 6 mths % (n)	Days injected last 6 mths (range)	Last drug injected % (n)
Methamphetamine powder	67 (6)	16 (1-48)	67 (6)	8 (1-24)	44 (4)
Methamphetamine base	67 (6)	7 (2-24)	67 (6)	6 (2-24)	33 (3)
Crystal methamphetamine	33 (3)	2 (1-2)	11(1)	1 (n=1)	-
Heroin	-	-	-	-	-
Ecstasy	100 (9)	18 (6-48)	11 (1)	1 (n=1)	11 (1)
Cocaine	11 (1)	1 (n=1)	11 (1)	1 (n=1)	-
Ketamine	-	-	-	-	-
Other opiates*	33 (3)	10 (3-48)	-	-	-
Methadone	22 (2)	89 (2-180)	22 (2)	36 (1-72)	-
Benzodiazepines	67 (6)	17 (2-96)	11(1)	12 (n=1)	11 (1)
Pharmaceutical Stimulants.	33 (3)	10 (1-180)	22 (2)	4 (4-4)	-
LSD	56 (5)	2 (1-12)	-	-	-
MDA	11 (1)	4 (n=1)	-	-	-
Alcohol	100 (9)	36 (12-72)	-	-	-

Source: PDI Regular ecstasy user interviews (#Includes codeine, morphine, pethidine and opium)

Context of recent injecting drug use

The majority of those that had recently injected had done so at private residences including their own home (89%), a friends' home (76%) and to a lesser extent at a dealers' home (11%). One third had also injected in a car (33%), and smaller proportions had injected in a venue (nightclub) toilet (11%) or at work (2%). Over half (56%) had typically injected with close friends in the six months preceding the interview, and smaller proportions had injected with a regular sex partner (11%), a casual sex partner (11%), an acquaintance (11%) or by themselves (11%).

Obtaining needles

All recent injecting drug users (n=9) had obtained equipment from NSP outlets. Single respondents had obtained equipment from a chemist (11%) or from a friend (11%). One fifth of those who had recently injected (22%, n=2) reported difficulty in obtaining needles in the last six months. Reasons for this difficulty included the opening hours of the service/chemist (n=1), the location of the service/chemist (n=1), and due being in another part of the state at the time (n=1).

Injecting risk behaviour among recent injectors

None of those who reported recent injecting drug use had used a needle after someone else in the last month. One participant (11%) had used a needle after their regular sex partner on a single occasion in the last six months. None of the participants reported that someone had used a needle after them in the last six months. Sharing of other injecting equipment was more common, with two in five (44%) reporting that they had shared injecting equipment in the six months preceding the interview. Equipment that was commonly shared during this time included spoons (44%, n=4), tourniquets (33%, n=3), filters (22%, n=2), and water (11%, n=1).

Overall, recent injectors had injected any drug a median of 20 times (range 1-72 times) in the six months preceding the interview. Over half of recent injectors (56%) had injected themselves every time in the last six months, a small proportion had injected themselves often (11%) and one third (33%) had never injected themselves during this period of time. Two thirds of recent injectors (67%, n=6) had injected both under the influence and coming down from ecstasy. Those who had injected while under the influence and when coming down from ecstasy had done so a median of 5 times (range 2-13 times) in the six months preceding the interview.

Table 44. Injecting risk behaviour

	% n=9
Shared needles last month (%)	-
Shared needles last 6 months (%)	11 (n=1)
Times someone used needle after	
Once	100 (n=1)
Shared other injecting equipment	
spoons	44
tourniquets	33
filters	22
Water	11
Frequency of self injection	
Every time	56
Often	11
Never	33
Median times injected any drug last 6 months	20 (1-72)
Injected under the influence of ecstasy (%)	77
Median times injected any drug under the influence last 6 months	5 (2-13)

Source: PDI Regular ecstasy user interviews

12.2 BBVI vaccination testing and self reported status

Over half of regular ecstasy users had been vaccinated for hepatitis B. The main reasons for hepatitis B vaccination included overseas travel (33%), work requirements (26%), a precautionary measure (26%), on the advice of a relative (16%), and childhood vaccination (14%). Only small proportions indicated that they had been vaccinated for hepatitis B because they were at risk either sexually (2%) or through injecting drug use (2%). One third of the regular ecstasy using sample (34%) had been tested for hepatitis C, and 18% of the sample had been tested in the last year. None of the regular ecstasy user participants had tested positive for hepatitis C and one participant did not know the result of the test. Similarly one third of participants (36%) had been tested for HIV at some stage and 15% of the sample had been tested in the last year. A single participant indicated that they were HIV positive. Whereas one third of this group (33%) had been for a sexual health check up in the last year, one half (53%) had never had a sexual health check up.

Table 45. BBVI vaccination, testing and self reported status

	%
HBV vaccination (%)	n=96
No	44
Yes (didn't complete schedule)	10
Yes (completed schedule)	44
Don't know	2
If yes, reason	n=51
Risk (sexual)	2
Risk (IDU)	2
Going overseas	33
Vaccinated as a child	14
Don't know/can't remember	12
Working in a health setting	11
Work requirement	26
Relatives advice	16
GPs advice	11
Precautionary	26
Other	11
HCV test last year (%)	n=96
No	67
Yes (in the last year)	18
Yes (more than one year ago)	16
If yes	
Positive	-
Negative	97
Don't know	3 (n=1)
HIV test last year (%)	
No	64
Yes (in the last year)	22
Yes (more than one year ago)	15
If yes	
Positive	3 (n=1)
Negative	97
Don't know	-
Ever had a sexual health check up (%)	
No	53
Yes (in the last year)	33
Yes (more than one year ago)	14
Don't know	-

Source: PDI Regular ecstasy user interviews

12.3 Sexual risk behaviour

12.3.1 Patterns of recent sexual activity

A large majority of the regular ecstasy using sample (92%) reported having penetrative sex in the six months preceding the interview (Table 46). Penetrative sex was defined as the penetration of the penis/hand in the vagina/anus. Of those that had recently had penetrative sex, a large majority (86%) reported having sex with a regular partner over half (61%) reported having sex with a casual partner during this time. Of those who had penetrative sex in the preceding six months, close to a half (44%) reported having sex with one partner during this time, 16% reported having sex with two partners, one third (34%) reported having sex with three to five partners, and small proportions reported having sex with six to ten (5%) and more than ten partners (1%). Of those who had sex with a regular partner in the preceding six months, half had used condoms every time (21%) or often (30%) and half had used condoms only sometimes (23%), rarely (15%), or never (12%). Participants were more likely to use protection when having sex with a casual partner, with two thirds reporting using condoms either every time (36%) or often (27%), and one third using condoms either sometimes (21%), rarely (9%) or never (7%). Less than one tenth of the sample (8%) reported having anal sex in the six months preceding the interview. The majority of those who had anal sex (88%) had done so monthly or less.

Table 46. Sexual activity and condom use in the preceding six months

	%
Penetrative sex last six months (%)	92
Of those who had penetrative sex in last six months	
Number of sexual partners in the last six months	
One partner (%)	44
Two partners (%)	16
Three to five partners (%)	34
Six to ten partners (%)	5
More than ten partners (%)	1
Had penetrative sex with	
Regular partner (%)	86
Casual partner (%)	61
Of those who had regular partner (s), condoms used	n=78
Every time (%)	21
Often (%)	30
Sometimes (%)	23
Rarely (%)	15
Never (%)	12
Of those who had casual partner(s), condoms used	n=56
Every time (%)	36
Often (%)	27
Sometimes (%)	21
Rarely (%)	9
Never (%)	7
Of those who had anal sex in the last six months	n=8
Number of times anal sex last six months	
Monthly or less (1-6 times)	88
Fortnightly- monthly (7-12 times)	-
Weekly- fortnightly (13-24 times)	-
Three times a week- once a week (25-72)	12
Daily- three times a week (73-180)	-
More than daily (181+)	-

Source: PDI Regular ecstasy user interviews

12.3.2 Sexual risk behaviour

A large majority of the participants that had been sexually active in the six months preceding the interview (80%) had engaged in penetrative sex under the influence of ecstasy and related drugs during this time (Table 47). Of those that had recently engaged in penetrative sex under the influence of ERDs, the number of occasions varied from once (19%), twice (22%), three to five times (24%), six to ten times (19%) to more than ten times (16%). These respondents most commonly reported having sex under the influence of ecstasy (93%), alcohol (64%), cannabis (42%), and/or methamphetamine powder (26%). Small proportions reported having had sex under the influence of methamphetamine base (5%), amyl nitrite (5%), cocaine (4%), LSD (3%), benzodiazepines (3%), other opiates (3%), nitrous oxide (3%), psychedelic mushrooms (1%), pharmaceutical stimulants (1%), and crystal methamphetamine (1%). A greater proportion of those that had recently binged on ecstasy and related drugs had recently had sex under the influence of drugs in comparison to those that hadn't recently binged (97% vs. 73%), $\chi^2=7.45$, $p=.006$.

Of those who had sex under the influence of ERDs with a regular partner in the preceding six months, less than half had used condoms every time (18%) or often (23%) and over half had used condoms sometimes (17%), rarely (22%), or never (20%). Of those who had sex under the influence of ERDs with a casual partner in the preceding six months, over half had used condoms either every time (35%) or often (21%), and less than half had used condoms either sometimes (23%), rarely (9%) or never (12%).

Participants were typically just as likely to report using protection when having sex under the influence of drugs (Table 47) compared to when having sex generally (Table 46). For example, 21% 'always' used protection when having sex with a regular partner generally, compared to 18% when under the influence of drugs. Further, 36% reported 'always' using protection when having sex with a casual partner generally, compared to 35% when under the influence of drugs.

Table 47. Sexual activity and condom use under the influence of drugs in the preceding six months

	%
Of those who had penetrative sex in last six months	n=92
Penetrative sex under the influence of ERDs in last 6 months	80
Of those who had sex under the influence ERDs	n=74
No. times sex under the influence	
Once (%)	19
Twice (%)	22
Three-five times (%)	24
Six-ten times (%)	19
More than ten times (%)	16
Drugs used under the influence	
Ecstasy	93
Cannabis	42
Alcohol	64
Methamphetamine powder	26
Methamphetamine base	5
Crystal methamphetamine	1
Cocaine	4
LSD	3
Amyl Nitrite	5
Nitrous oxide	3
Methadone	1
Other Opiates	3
Benzodiazepines	3
Psychedelic mushrooms	1
Pharmaceutical stimulants	1
Of those who had sex with regular partner (s) under influence of party drugs, condoms used	n=60
Every time (%)	18
Often (%)	23
Sometimes (%)	17
Rarely (%)	22
Never (%)	20
Of those who had sex with casual partner(s) under influence of party drugs, condoms used	n=43
Every time (%)	35
Often (%)	21
Sometimes (%)	23
Rarely (%)	9
Never (%)	12

Source: PDI Regular ecstasy user interviews

12.4 Tattooing and piercing

Less than one fifth of the sample (18%) had received a tattoo at some stage of their lives. The median length of time since last tattoo was 48 months (range 6-144 months), or approximately four years (Table 48). All of those who had received a tattoo reported that it was conducted at a tattoo parlour or by a professional tattooist. Less than one fifth of the sample (19%) had received a body piercing (at a location other than ears) at some stage of their lives. The median length of time since last piercing was 24 months (range 1-84 months), or approximately two years, and these had been conducted by a professional (84%) or a doctor (21%).

Table 48. Tattooing and piercing among regular party drug users

Variable	%
Tattooed	18
Median length of time since last tattoo (mths)	48 (range 6-144)
Of those tattooed	
Parlour/professional	100
Non professional	-
Pierced	19
Median length of time since last piercing (mths)	24 (range 1-84)
Of those pierced	
Doctor	21
Parlour/professional	84
Non professional	-

Source: PDI Regular ecstasy user interviews

12.5 Driving risk behaviour

Over two thirds of regular ecstasy users (68%) had driven soon after (within an hour) using a drug in the six months preceding interview (Table 49). Half of the sample (51%) indicated that they had driven soon after drinking alcohol in the six months preceding the interview. However, it is not possible to determine whether these participants were over the legal blood alcohol level in the present study. Over half of the sample (59%) had driven under the influence of other drugs excluding alcohol. Half of the sample had recently driven under the influence of cannabis (50%), and slightly less than half had driven under the influence of ecstasy (45%), and methamphetamine powder (44%). Other drugs included methamphetamine base (6%), benzodiazepines (6%), psychedelic mushrooms (5%), LSD (4%), amyl nitrate (3%) nitrous oxide (3%), cocaine (1%), ketamine (1%), MDA (1%), and other opiates (1%).

A greater proportion of the male sample (69%) had recently driven under the influence of drugs (excluding alcohol) in comparison to the proportion of the female sample (44%), $\chi 2=6.28$, $p=.012$. A greater proportion of older users (69%) had recently driven under the influence of drugs (excluding alcohol) in comparison to younger users (50%), $\chi 2=3.63$, $p=.057$. However, this age difference did reach conventional levels of statistical significance and younger users may not have had a driver's license and/or a car. Those who had driven under the influence of drugs had used ecstasy on a significantly greater number of days (14 vs. 10 days), Mann-Whitney $U = 931.5$, $p=.049$, and had used a greater amount of ecstasy in a typical session (1.5 vs. 2 tablets) in comparison to those who had not recently driven under the influence of drugs, Mann-Whitney $U = 902.0$, $p=.047$. They also tended to have been using ecstasy for a greater number of years (3 vs. 2 years), Mann-Whitney $U=928.5$, $p=.059$, though this comparison did not reach conventional levels of statistical significance. A greater proportion of those that had recently binged on ecstasy and related drugs had recently driven under the influence of drugs during the six months preceding the interview in comparison to those that hadn't recently binged (74% vs. 51%), $\chi^2=5.20$, $p=.023$.

Table 49. Driving under the influence of drugs among regular ecstasy users

Variable	%
Driven under the influence of drugs	68
Drugs driven under the influence of	
Alcohol	51
Cannabis	50
Ecstasy	45
Methamphetamine powder	30
Methamphetamine base	6
Benzodiazepines	6
Psychedelic mushrooms	5
LSD	4
Amyl nitrite	3
Nitrous oxide	3
Cocaine	1
Ketamine	1
MDA	1
Other opiates	1

Source: PDI Regular ecstasy user interviews

12.6 Binge drug use

Over one third of the sample (35%) had recently binged on or used some form of stimulant for more than 48 hours continuously without sleep. Substances used most commonly during a binge session of use were ecstasy (34%), alcohol (28%), methamphetamine powder (25%), and cannabis (19%). Small proportions had binged on LSD (7%), nitrous oxide (7%), psychedelic mushrooms (4%), methamphetamine base (4%), crystal methamphetamine (4%), cocaine (1%), MDA (2%), amyl nitrite (3%), pharmaceutical stimulants (1%), and benzodiazepines (1%). The longest period of continuous use during this time was a median of 61 hours (range 48-120 hours).

There were no age or sex differences between those who had or had not recently binged. However, a greater proportion of those that had binged were unemployed (17% vs. 3%), χ^2= 6.12, p=.013, or gay/lesbian/bisexual (17% vs. 2%), χ^2= 8.51, p=.004. However, these difference need to be interpreted with caution due to the low representation of both of these characteristics in the current cohort. Further, those that had recently binged had been using ecstasy for a greater number of years (4 vs. 3 years), Mann-Whitney U=828.5, p=.039, had used ecstasy more frequently in the last six months (22 vs. 10 days), Mann-Whitney U = 514.00, p<.001, and had used greater number of ecstasy tablets in the largest recent session of use (4 vs. 3 tablets), Mann-Whitney U = 768.5, p=.016. Those that had recently binged had also recently used a significantly greater number of drug types (7 vs. 5 drug types), Mann-Whitney U = 520.0, p<.001, and were more likely to have used some form of methamphetamine during the six months preceding the interview (94% vs. 66%), χ^2=9.87, p=.002. A greater proportion had used drugs intravenously at some stage of their life (29% vs. 8%), χ^2=7.78, p=.005, and during the six months preceding the interview (20% vs. 3%), χ^2=7.96, p=.005.

12.7 Summary of risk behaviour among regular ecstasy users

- Less than one in ten of the current sample of regular ecstasy users (9%) had recently used substances intravenously compared to one in 5 (22%) among the 2003 cohort
- Methamphetamine was typically the first drug ever injected and the most common drug ever and recently injected. The sharing of needles was relatively rare; however, two out of five had recently shared other injecting equipment such as spoons, tourniquets, filters, and water. All recent injecting drug users had obtained injecting equipment from NSP outlets in the preceding six months, however, one fifth reported some difficulty in obtaining needles in the six months preceding the interview.
- Eighty percent of participants that had been sexually active during the six months preceding the interview reported recent penetrative sex under the influence of ecstasy and related drugs. Those that had recently binged on ecstasy and related drugs were more likely to have recently had sex under the influence of drugs. One in five used protection every time they had sex under the influence with a regular partner and one in three used protection every time that they had sex with a casual partner when under the influence of ecstasy and related drugs. Participants were slightly less likely to use protection with a regular partner when under the influence of party drugs.
- Whereas one third of participants (33%) had been for a sexual health check up in the last year, one half (53%) had never had a sexual health check up. Two thirds of the sample had not ever been tested for hepatitis C or HIV.
- Over half of the participants had driven soon after using drugs other than alcohol in the six months preceding the interview, typically, cannabis, ecstasy, and methamphetamine powder. A greater proportion of males had recently driven under the influence of drugs in comparison to females and those who had driven under the influence of drugs had used ecstasy more frequently and in greater amounts in the preceding six months.
- One third (35%) had recently binged on ecstasy and related drugs (a continuous period of use for more than 48 hours without sleep). Those who had recently binged had been using ecstasy for a longer period of time, had experimented with a greater number of drugs, had recently used ecstasy more frequently, and were more likely to have recently used methamphetamine.

13.0 HEALTH RELATED ISSUES

13.1 Overdose

Regular ecstasy users were asked if they had overdosed on any drug in the six moths preceding the interview. The definition of overdose included passing out or falling into a coma, so does not necessarily indicate that the participant accessed a health service or experienced acute physical problems in relation to overdose. Less than one fifth of the sample (18%) sample had overdosed on a drug in the preceding six months. There were no age differences between those who had and had not recently overdosed and no significant difference in the proportion of the male sample (23%) and female sample (10%) that had recently overdosed. A greater proportion of those who had overdosed had injected drugs at some stage of their life (33% vs. 11%), χ^2=5.79, p=.016, and had injected drugs in the last six months (22% vs. 6%), χ^2=4.69, p=.030, compared to those who had not overdosed. They were also more likely to have used other opiates (22% vs. 5%), χ^2=5.92, p=.015, and antidepressants during the six months preceding the interview (22% vs. 0%), χ^2=18.76, p<.001.

The 'main drug' involved in recent overdose episodes was most commonly alcohol (72%, n=13). Smaller proportions indicated that the 'main drug' involved in an overdose was ecstasy (11%, n=2), cannabis (6%, n=1), methamphetamine powder (6%, n=1), and nitrous oxide (6%, n=1). Three participants that attributed an overdose episode to alcohol were not under the influence of any other drugs, and others indicated that they were also under the influence of cannabis (n=5), ecstasy (n=4), methamphetamine powder (n=1) and cocaine (n=1). The two participants that attributed an overdose episode to ecstasy were also under the influence of alcohol and cannabis at the time, and one of these participants was also under the influence of amyl nitrite. The single participant who indicated that methamphetamine powder was the main drug involved in an overdose episode had also used ecstasy and alcohol. The single participant who had overdosed on nitrous oxide was also under the influence of alcohol. The participant who attributed their overdose to cannabis had also used crystal methamphetamine.

13.2 Self reported symptoms of dependence

13.2.1 Ecstasy (see Section 4.7.2)

13.2.2 Methamphetamine (see Section 5.5.3)

13.3 Help-seeking behaviour

One tenth of the regular ecstasy using sample (10%) had accessed a health or medical service in relation to their drug use in the six months preceding interview (Table 50). There was no age or sex differences between those that had or had not recently accessed health services. The most commonly accessed service was a GP (n=3), followed by counsellor (n=2), and hospitalisation (n=2). There were also single reports of respondents accessing an AOD worker, a psychologist and first aid. Those that had recently accessed health services had used a greater number of different drug types at

some stage of their lives (9 vs. 8), Mann-Whitney U =277.0, p=.05, and a greater number of drug types in the last six months, (8 vs. 6), Mann-Whitney U =277.0, p=.05, compared to those who had not accessed any health services. A greater proportion of those that had recently accessed health services had a score of 5 or more on the ecstasy SDS (a reasonable cut-off score suggestive of clinical dependence) in comparison to those that hadn't accessed health services (40% vs. 8%), χ^2=9.54, p=.002.. However, these findings should be interpreted with caution due to the small numbers of those reporting seeking help, and the lack of reliability and validity of this scale in relation to ecstasy.

Participants that had accessed health services in relation to their drug use in the last six months were asked to specify the main drug and the main issue involved. Only four participants had accessed a health service in relation to their ecstasy use. Two participants had accessed a GP, one for anxiety and the other for a pre-existing condition, one participant had accessed a first aid service for a bitten tongue, and another had been hospitalised for acute physical problems. Two participants had accessed health services in relation to methadone dependence/addiction, one had been to a GP, and another an AOD worker. One participant had accessed a counsellor in relation to cannabis dependence/addiction, and another had accessed a counsellor for information or advice on drug effects in relation to polydrug use. A single participant had accessed a psychologist in relation to anxiety experienced mainly due to methamphetamine powder use. A single participant had been hospitalised for alcohol overdose.

Table 50. Main drug attributed to access of health services

Service	**Any drug**	Ecstasy	Alcohol	Metha-done	Cannabis	Meth powder	Poly drug
GP	**n=3**	n=2		n=1			
Counsellor	**n=2**				n=1		n=1
Hospitalisation	**n=2**	n=1	n=1				
First aid	**n=1**	n=1					
AOD worker	**n=1**			n=1			
Psychologist	**n=1**					n=1	

Source: PDI Regular ecstasy user interviews

13.4 Other problems

Regular ecstasy users were asked if their drug use had caused any problems in the six months preceding the interview (Table 51). Two thirds of the sample (66%) indicated that their drug use had recently caused work/study problems, and approximately one third indicated that it had recently caused financial (40%), and relationship/social problems (37%). Consistent with low levels of criminal activity and number of arrests in this group, only two participants (2%) reported that their drug use had caused recent legal/police problems.

A greater proportion of the female sample (77%) had recently experienced work/study problems in comparison to the proportion of the male sample (53%), χ2=5.18, p=.023. There were no sex or age differences between those that had or had not experienced financial or social/relationship problems. However, those who had experienced social/relationship problems had first started using ecstasy at a younger age (18 years) in comparison to those who hadn't experienced social/relationship problems, t(98)=3.46,

p=.012. A greater proportion of those that had experienced social problems had an ecstasy SDS score of five or more (a reasonable cut-off score suggestive of clinical dependence) compared to those compared to those that hadn't experienced social problems, (18% vs. 6%), χ^2= 3.76, p=.052 However, these findings should be interpreted with caution due to the small numbers of those reporting seeking help, and the lack of reliability and validity of this scale in relation to ecstasy.

Whereas the majority of participants who had recently experienced problems attributed such problems to ecstasy use, this is likely to reflect the sampling of participants that regularly use ecstasy in the present study, rather than indicating that ecstasy has a greater impact in comparison to other drugs. Problems in relation to each main drug type are discussed in more detail in the relevant sections of this report relating to each drug type..

Table 51. Main drug attributed to problems experienced in the preceding six months.

	Work/study problems %	Financial problems %	Social problems %	Legal problems %
Any drug	n=66	n=40	n=37	n=2
Ecstasy	59	75	54	50*
Methamphetamine powder	5	8	8	-
Methamphetamine base	-	3*	8	-
Crystal methamphetamine	-	-	-	50*
Cannabis	21	8	14	-
Alcohol	11	3*	14	-
Tobacco	-	3*	-	-
Cocaine	2*	-	-	-
LSD	2*	-	-	-
Methadone	2*	3*	3*	-

Source: PDI Regular ecstasy user interviews (* n=1)

Those that had recently experienced work/study problems (66% of the sample) mostly attributed them to ecstasy use (59%), followed by cannabis (21%) and alcohol (11%). Single respondents (2%) attributed work/study problems to cocaine, LSD, and methadone use. Of those experiencing recent work/study problems, the majority of problems were relatively minor including lack of motivation (35%), trouble concentrating (27%) and reduced work performance (6%). One fifth (28%) had experienced the problem of taking sick leave or not attending classes.

Of the forty participants that had experienced financial problems, three quarters attributed these to ecstasy use, followed by methamphetamine powder (8%), cannabis (8%), alcohol (3%), methadone (3%), methamphetamine base (3%) and tobacco (3%). Over half of those who had experienced financial problems (57%) had recently had no money for recreation or luxuries. Smaller proportions had experienced more serious financial problems such as being in debt/owing money (23%), or having no money for food or rent (23%).

Of the thirty seven participants that had recently experienced relationship/social problems, half attributed these problems to ecstasy use (54%), followed by cannabis (14%), alcohol (14%), methamphetamine powder (8%), methamphetamine base (8%) and methadone (1%). The relationship/social problems experienced by regular ecstasy

users were relatively minor with the majority reporting arguments (46%), or mistrust/anxiety (38%). Smaller proportions reported more serious relationship/social problems such as ending a relationship (8%, n=3), or being kicked out of home (3%, n=1).

13.5 Access to drug and harm reduction information

Regular ecstasy users were asked how often and how they found out about the effects or risks of different drug types and batches of ecstasy pills (Table 52). Over half of the sample indicated that they either 'sometimes' (46%) or never (6%) found out about the effects or risks of different drugs that they had taken. The remaining participants accessed this information 'most times' (22%), 'always' (15%) or 'about half the time' (11%). Similarly, over half of the sample indicated that they either 'sometimes' (39%) or 'never' (12%) found out about the effects or risks of different batches of ecstasy pills before they took them. The remaining participants accessed this information 'most times' (26%), 'about half the time' (15%) or 'always' (7%).

Participants were most likely to find out about different types of through friends (77%), and websites (57%), followed by information pamphlets (30%), other people (31%) and dealers (21%). Similarly, participants were most likely to access information about batches of ecstasy pills through friends (73%), websites (42%), other people (34%), and dealers (29%). Not surprisingly, few participants had accessed information pamphlets to find out about batches of ecstasy pills (1%). A single participant indicated that they used pill testing kits to find out about the content of ecstasy pills compared to eight participants in the 2003 sample (Bruno & McLean, 2004). The most commonly accessed website for was www.pillreports.com (26%). Other participants had used general web searches or accessed websites such as www.ravesafe.org, www.erowid.org and www.shroomery.net, Single respondents also accessed information through books, documentaries, magazines, posters, MIMS, and university courses.

Table 52. Patterns of access to harm reduction information among REU

Variable	Different drugs %	Batches of pills %
How often find out about effects and risks of drugs	n=99	n=100
Never	6	12
Sometimes	46	39
About half the time	11	15
Most times	22	26
Always	15	7
How find out about effects and risks of drugs		
I don't	6	12
Dealer	21	29
Friends	77	73
Other people	31	34
Information pamphlets	30	1
Websites	57	42
Testing kits	0	1
Other	7	0

Source: PDI Regular ecstasy user interviews

Close to two thirds of the regular ecstasy users (64%) indicated that they had 'sometimes' bought a drug and it turned out to have different effects than they expected in the last six months. One third (31%) had 'never' experienced different effects than they expected, and small proportions had experienced different effects 'about half the time' (4%) and 'most times' (1%).

Regular ecstasy users were asked which information resources they would find useful for 'themself' or for the 'local ecstasy and related drug community' if available locally (Table 53). The most commonly endorsed information resources were a local website (67% & 61%), information pamphlets (56% & 66%) and testing kits (49% & 60%). Posters (19% & 28%), postcards (19% & 28%), venue outreach at organised events (13% & 33%) as well as media such as CDs (10% & 15%) and DVDs (7% & 6%) were also considered to be useful. Other suggested information resources included other forms of media (4%), telephone hotline or confidential counselling service (3%), peer education (2%) and posters (2%) or outreach (1%) in clubs. Although over half of the participants considered information pamphlets to be a useful resource for either themselves or others only 30% had recently accessed information pamphlets. Several regular ecstasy users (n=6) indicated qualitatively that a greater emphasis and resources should be put into harm prevention and minimisation strategies.

Table 53. Perceptions of the usefulness of information resources among REU

Information resource variable	Self %	REU community %
None	5	0
Local website	67	61
Information pamphlets	56	66
Testing kits	49	60
Posters	19	28
Postcards	19	28
Venue outreach	13	33
CDs	10	15
DVDs	7	9
Other	6	6

Source: PDI Regular ecstasy user interviews

13.6 Summary of health related issues

- Less than one fifth of the sample (18%) had overdosed on any drug in the six months preceding the interview, and alcohol was the main drug involved in thirteen of these cases, and had been used in all but one of these cases. Ecstasy was the main drug attributable to overdose in only two cases, and had been used in a further four cases that were attributable to alcohol. With the exception of alcohol, all overdoses involved more than one drug. Those who had recently overdosed were more likely to be injecting drug users and were more likely to have recently used other opiates and antidepressants.
- Few regular ecstasy users (10%) had accessed health services in relation to drug use in the preceding six months. Only four participants had accessed health services in relation to ecstasy use. Those that had recently accessed health services had used a greater number of drug types ever and in the six months preceding the interview, and were more likely to have higher levels of dependence, as indexed by the ecstasy Severity of Dependence Scale (SDS).
- Two thirds of the sample (66%) had experienced work/study problems in relation to drug use and over one third had recently experienced financial (40%) and social/relationship (37%) problems in relation to drug use. Females were more likely to experience work/study problems in relation to drug use and those that had recently experienced social/relationship problems had first started using ecstasy at an earlier age, and were more likely to have higher levels of dependence, as indexed by the ecstasy SDS. Whereas the majority of these problems were relatively minor, a small proportion of the sample experienced more serious problems such as ending a relationship, being kicked out of home, or having no money to pay for food or rent.
- Whereas approximately half of the regular ecstasy users interviewed actively sought information about the effects or risks associated with different drug types and 'batches' of ecstasy pills, half of the participants only sometimes or never found out about the effects or risks of different drug types or batches of pills. Friends and websites were the most commonly accessed information resources followed by information pamphlets and other people or dealers. Further, close to two thirds of the regular ecstasy users (64%) indicated that they had 'sometimes' bought a drug and it turned out to have different effects than they expected in the last six months. Regular ecstasy users indicated that resources such as a local website, information pamphlets, and testing kits would be most useful for either themselves or the local ecstasy and related drug user community. Posters and venue outreach at events were also considered to be useful resources.

14.0 CRIMINAL AND POLICE ACTIVITY

14.1 Reports of criminal activity among REU

With the exception of selling drugs for cash profit, only a small proportion (6%) of the REU sample had committed a crime in the month preceding the interview, and all of these were related to property offences (6%). The frequency of property crime was relatively low among those participants interviewed, with most reporting committing property crime less than once a week in the last month (n=5). One participant reported committing property crime on a weekly basis in the last month. There were no reports of fraud or violent crime within the sample. Only three people (3%) reported that they had been arrested in the 12 months preceding the interview, and all of these were arrested for property offences.

One sixth of the sample (16%) had sold drugs for cash profit during the month preceding the interview, and this is smaller relative to the proportion of the 2003 sample (25%). The frequency of drug dealing was relatively low with most reporting that they had sold drugs less than weekly (n=10), and others reported once a week (n=2), or more than once a week but less than daily (n=4). In addition to those who reported selling drugs for cash profit, a small proportion of the sample (8%) had paid for ecstasy through dealing drugs, which is fewer in comparison to the proportion of the 2003 cohort (19%).

Key experts typically commented that there was generally no crime associated with the group of regular ecstasy users that they were familiar with (n=9). The majority of KEs did not know or were not aware of any property crime, fraud or violent crime among the group of regular ecstasy that they were familiar with. Four key experts noted that there was some property crime among REUs, but two KEs noted that property crime was generally more common among primary methamphetamine rather than ecstasy users. Key experts who worked within government health services noted some social security fraud (n=2) and some violent crime (n=3) among the groups that they were familiar with. Those that commented on violent crime generally associated it with methamphetamine use (n=2), alcohol use (n=2) or polydrug use (n=1) rather than ecstasy use.

Table 54. Criminal activity reported by REU

Criminal activity in the last month	2003 sample (n=100)	2004 sample (n=100)
Any crime	30	19
Drug dealing	25	16
Property crime	4	6
Fraud	1	-
Violent crime	-	-
In the preceding six months:		
Paid for ecstasy through dealing drugs	19	8
Paid for ecstasy through property crime	-	-
Paid for ecstasy through fraud	-	-
Paid for ecstasy through sex work	-	-
Arrested in the preceding 6 mths	6	3
Arrested for property crime	1	3
Arrested for use/possession	-	-
Arrested for violent crime	-	-
Arrested for fraud	-	-
Arrested for dealing/trafficking	-	-
Arrested for driving offence	1	-
Arrested for alcohol and driving	2	-
Arrested for drugs and driving	-	-
Arrested for other reason	1	-

Source: PDI Regular ecstasy user interviews

14.2 Perceptions of police activity towards REU

Regular ecstasy users were asked if there had been any changes in police activity towards ecstasy users in the six months preceding the interview. One third of the sample (30%) did not know whether there had been any recent changes in police activity, one third (35%) thought that police activity had been stable, one third thought that police activity had increased (31%), and only a small proportion (4%) thought that police activity had decreased in the six months preceding the interview. Compared to the 2003 sample, less participants thought that there had been a recent increase in police (31% vs. 55%), and a greater proportion thought that police activity had been stable (35% vs. 24%), or did not know (30% vs. 20%). When asked if police activity had made it more difficult to score drugs in the six months preceding the interview, the majority of the sample (83%) perceived that it had not, compared to 73% among the 2003 sample. The majority of those that commented on recent changes in police activity noted an increased police presence at nightclubs (n=12), and at dance parties or organised events (n=4), and over half of these comments were related to an increased 'undercover' presence. One participant commented that there had been increased surveillance outside nightclubs. There were also comments on recent increases in "busts" of ecstasy dealers (n=5), increased arrests (n=1), and increased information gathering by police (n=1).

Table 55. Perceptions of police activity by REU

Perception	2003 sample (n=100)	2004 sample (n=100)
Recent changes in police activity:		
Decreased	1	4
Stable	24	35
Increased	55	31
Don't know	20	30
Has police activity made it more difficult for you to score drugs recently?		
Yes	28	17
No	73	83
Don't know	-	-

Source: PDI Regular ecstasy user interviews

Several key experts noted that there had been increased police activity towards ecstasy users in the six months preceding the interview (n=11). Consistent with user reports, several KEs noted an increased police presence at nightclubs (n=5) and events (n=1), and increased undercover activity (n=2). Two law enforcement KEs commented that increased police activity had occurred due to an increase in the amount of information received through sources such as informants, Crime Stoppers and Operation Noah. Other KEs noted that there had not been much police activity, no change in activity, fluctuations in activity, or did not know or comment (n=8). A single key expert commented that police within their locality were generally supportive of a harm reduction approach (n=1).

14.3 Summary of criminal and police activity

- With the exception of dealing drugs only 6% of regular ecstasy users had committed criminal offences in the six months preceding the interview, and all of these offences related to property crime. Similarly, key experts generally indicated that there was none or little crime among the group of regular ecstasy users that they were familiar with.
- One sixth of the sample (16%) had recently sold drugs for financial profit compared to 25% of the 2003 cohort. Over half of those that had sold drugs had done so less than monthly. A small proportion of the sample (8%) had funded their own ecstasy use through selling drugs compared to 19% among the 2003 sample.
- One third of regular ecstasy users (31%) and several key experts perceived that there had been an increase in police activity towards ecstasy users in the last six months, however, the majority of regular ecstasy users indicated that police activity had not made it more difficult for them to obtain drugs.

15.0 SUMMARY

15.1 Demographic characteristics of REU

The regular ecstasy users interviewed in the present study were typically young, with ages ranging from 18 to 32 years and the majority in their early to mid twenties. Participants were generally well educated and either employed on a fulltime or part time/casual basis or currently engaged in full time study. Few participants were currently in drug treatment or had come into contact with the criminal justice system. There was less unemployment, injecting drug use, and current drug treatment among the current sample in comparison to the 2003 sample, possibly reflecting less overlap between the IDU and REU populations.

15.2 Patterns of polydrug use

While the participants were selected on the basis of ecstasy use and over half nominated ecstasy as their drug of choice, polydrug use was the norm among the regular ecstasy users interviewed. Participants had use a median of eight drug types (from an investigation of 19 drug types) at some stage of their lives and a median of six drug types in the six months preceding the interview. Participants typically reported recent use of alcohol, cannabis, tobacco, and methamphetamine powder, over one third of participants had recently used LSD, psychedelic mushrooms and nitrous oxide, and one quarter had recently used amyl nitrite.

Participants generally reported having used fewer drug types during their life (8 vs. 9) and during the six months preceding the interview (6 vs. 7) in comparison to the 2003 sample. There was substantially less lifetime and recent use of crystal methamphetamine, ketamine, and amyl nitrite among the participants interviewed in the current sample. Slightly fewer participants reported recent use of benzodiazepines, antidepressants, methadone, heroin and MDA and slightly more reported recent use of LSD and nitrous oxide. Proportions reporting recent use of cannabis, alcohol, tobacco, methamphetamine powder, methamphetamine base, cocaine, GHB, other opiates, and psychedelic mushrooms were similar among the two cohorts.

Ecstasy was typically consumed in combination with other drugs. Alcohol, cannabis, and tobacco were commonly used in a typical session of ecstasy use and one quarter typically used methamphetamine powder when under the influence of ecstasy. Over two thirds of the sample typically consumed more than five standard drinks in combination with ecstasy, compared to less than half in 2003 (45% vs. 71%). Similarly, one third had typically consumed more than five standard drinks when coming down from ecstasy compared to one in five in 2003 (39% vs. 23%). This is noteworthy due to the increased risk of dehydration when alcohol is combined with ecstasy and the fact that larger quantities of alcohol can be consumed when under the influence of psychostimulants without experiencing immediate effects of intoxication. Though the harms associated with such use may still occur.

15.3 Ecstasy

Participants had first started to use ecstasy on a regular basis at 20 years on average and three quarters had been using ecstasy for two years or more. Ecstasy was typically taken orally, though snorting was also a common route of administration. There was also anecdotal evidence for a recent increase in the number of people shelving/shafting ecstasy. There was a wide variation in the frequency of ecstasy use among the sample ranging from monthly to several times a week. One quarter had used ecstasy weekly or more frequently, and over one third had used either fortnightly but less than weekly.

Two thirds typically used more than one tablet per session and one third used four or more tablets in a typical session of use. Males tended to use larger amounts of ecstasy in a typical session in comparison to females. In comparison to the 2003 sample, frequency of use was slightly lower but the number of tablets used in a typical session and the proportion using more than one tablet in a typical session was higher. One third had recently 'binged' or used ecstasy continuously for 48 hours or more without sleep. Ecstasy had been used at a range of locations, most commonly dance or music related venues or events or private residences and parties.

Whereas the long term effects and risks of extended ecstasy use are largely unknown, evidence from toxicology studies in rats and neuropsychological studies in humans indicate that the safest pattern of use is to use the drug infrequently and in small amounts. Thus, those using the drug frequently or in large amounts for extended periods of time may be at a greater risk for neurological and neuropsychological harm.

Price, purity, and availability

The median price for one tablet of ecstasy was $40 which is $10 less in comparison to the price reported by the 2003 sample ($50), and this was considered to have remained stable in the preceding six months. Comments of key experts indicated a recent decrease in the price of ecstasy. Participants typically paid for ecstasy through money earned through employment and ecstasy was typically purchased from friends or people selling for ecstasy profit (offsetting the cost of their own use of the drug). Ecstasy was considered to be very easy to obtain by both regular ecstasy users and key experts and availability had recently been either stable or had increased.

Ecstasy was reported to be high or fluctuating in purity and a greater proportion of regular ecstasy users indicated that ecstasy was high in purity in comparison to the 2003 sample. Key experts also noted that ecstasy had recently fluctuated or increased in purity. There have been limited forensic analyses of the purity of ecstasy tablets seized by Tasmania Police. The median purity of the 33 seizures analysed during the 2003/04 reporting period was 26.0% and ranged from 10.4% to 44.5%. There was a marked increase in the number of ecstasy tablets seized in 2003/04 in relation to previous years (over 1000 tablets compared to less than 100 in the previous year). This increase was also associated with a greater number of seizures, but largely related to two large seizures of the drug.

Ecstasy related harms

Though there have been a small and consistent number of calls made to the Tasmanian Alcohol and Drug Information Service (ADIS) in relation to ecstasy, these account for less than 2.5% of calls made to the service each year over the last four years. Only four participants indicated that they had recently accessed a health service in relation to

ecstasy use. A single participant indicated that they had been hospitalised for acute physical problems in relation to ecstasy use.

Only two participants indicated that they had overdosed (passed out/fallen into a coma) in the preceding six months and four others had overdosed on another drug but had also been under the influence of ecstasy at the time. Polydrug use and in particular the use of alcohol were factors in all of these cases.

Although the majority of participants did not experience significant symptoms of dependence in relation to their ecstasy use, approximately 10% of the participants, and a greater proportion of younger participants, experienced *some* symptoms of dependence toward the drug when assessed by the Severity of Dependence Scale. Whereas this scale does not have demonstrated reliability and validity in relation to ecstasy, these findings suggest that future research in the area of ecstasy dependence/addiction may be warranted. There was also some evidence that those with higher scores on this scale were more likely to have recently accessed health services and recently experienced social/relationship problems in relation to drug use. However, these results should be interpreted with caution, due to small sample sizes and the lack of research on the issue of ecstasy dependence/addiction.

Whereas the majority of participants reported experiencing few problems in relation to their ecstasy use, one third had recently experienced work/study and financial problems and one fifth had recently experienced social/relationship problems that were attributable, at least in part, to ecstasy use. Consistent with low levels of self reported criminal activity among regular ecstasy users, few participants had experienced legal problems of any sort. The majority of drug-related problems experienced by regular ecstasy users were relatively minor, but a small proportion experienced more serious problems such as having no money to pay for essentials such as food and rent and the ending of relationships. Females were more likely to report recent work/study problems in relation to ecstasy use. Social/relationship problems were generally associated with a greater frequency of drug use, binge drug use, and recent use of other drugs such as methamphetamine powder, crystal methamphetamine, cocaine, and ketamine.

Almost half of the participants had recently driven soon after (within an hour) of using ecstasy in the six months preceding the interview. Those that had driven under the influence of ecstasy had been using ecstasy for longer and had used the drug more frequently and in greater amounts compared to those that hadn't driven under the influence of ecstasy. They had also experimented with a greater number of drugs and were more likely to have recently used methamphetamine powder and to typically use methamphetamine powder when under the influence of ecstasy.

The majority of participants perceived both benefits and risks to be associated with their ecstasy use. Perceived benefits were generally associated with having a fun and enjoyable time, social benefits such as enhanced closeness and enhanced communication with others, the enhanced appreciation of music/dance as well as acute drug effects such as increased energy. The greatest perceived risks were damage to brain function or neurological damage and depression among other psychological and neuropsychological risks. Acute physical problems such as vomiting and headaches and long term physical problems were perceived to be the greatest physical risks, but few participants considered physical effects such as dehydration and overheating to be major risks. Other commonly perceived risks included those related to the illicit status of the drug and

included legal or police problems and the unknown contaminants and cutting agents contained in pills.

It would seem that there are clear indications of an expanding ecstasy market, the price of ecstasy has decreased and availability and purity of the drug have increased in comparison to the findings of the 2003 study, and Tasmania Police seizures of the drug have increased. There are also anecdotal reports of a broadening demographic of people consuming the drug locally including the use of ecstasy by younger people as well as an increase in the social acceptability of the drug. Ecstasy appears to have become enmeshed in drinking culture and is more likely to be used in combination with binge alcohol drinking. Whereas little harm was experienced in relation to ecstasy among the current sample, with low reports of overdose, help seeking behaviour, symptoms of dependence and generally only minor work/study, financial, or social/relationship problems, small proportions of participants had experienced more serious harms and larger proportions had engaged in potentially risky behaviour such as polydrug and binge drug use and driving under the influence.

15.4 Methamphetamine

Use of methamphetamine was common among the group or regular ecstasy users sampled in the present study. A large majority had ever used some form of methamphetamine and three quarters had used some form of methamphetamine in the preceding six months. The median frequency of methamphetamine use was six days in the preceding six months or approximately monthly. Two thirds had recently used methamphetamine powder, one fifth had recently used methamphetamine base, and less than one fifth had recently used crystal methamphetamine. Methamphetamine powder and base were typically taken orally and crystal methamphetamine was typically smoked. There was a substantially lower level of lifetime and recent use of crystal methamphetamine in comparison to the 2003 sample. Participants typically used small amounts of methamphetamine (0.1 of a gram) on a typical occasion of use, and the frequency of use for each form was less than monthly.

Less respondents were able to confidently comment on the price, purity and availability of methamphetamine base and crystal methamphetamine in comparison to methamphetamine powder. The price for one point of methamphetamine powder was $40 which is $10 less in comparison to the price reported by the 2003 sample. The median price for one point of methamphetamine base and crystal methamphetamine was $50. These prices were considered to have remained stable during the six months preceding the interview.

The purity of methamphetamine powder was considered to be medium to high and the purity of methamphetamine base and crystal methamphetamine was considered to be high. The purity of these forms was thought to have been either stable or fluctuating in the preceding six months. Methamphetamine powder was considered to be easy or very easy to obtain, and methamphetamine base and crystal methamphetamine were considered to be more difficult to obtain respectively. Whereas the availability of these forms was considered to be stable in the preceding six months, there are indications that the availability of crystal methamphetamine has decreased in the last year.

15.5 Cocaine

One third of participants had ever used cocaine and one tenth had used cocaine during the six months preceding the interview, which is similar to the proportion that had used the drug among the 2003 sample. A greater proportion of males had ever used cocaine in comparison to females. Cocaine had been used relatively infrequently with a median frequency of two days in the preceding six months. Cocaine was typically snorted and a median of 0.1 to 0.5 grams used in a typical session. The price for a gram of cocaine was ranged from $200 to $400 and this price was considered to have remained stable during the last six months. Reports on the purity of cocaine were varied and both regular ecstasy users and key experts considered the availability of cocaine to be low in Tasmania which is consistent with the situation reported in 2003.

15.6 Ketamine

Less than one fifth of the regular ecstasy users reported lifetime use of ketamine and only one in twenty had recently used ketamine. Ketamine was used on an average of two occasions in the preceding six months in relatively small amounts, indicating predominately experimental use by a small number of people in the current sample. Ketamine was typically swallowed or snorted and could be purchased in tablet, powder or liquid form. There was substantially less recent use of ketamine in comparison to the 2003 sample and fewer participants were able to confidently comment on the price, purity and availability of the drug. Reports on the price of ketamine were varied making it difficult to delineate clear trends. Ketamine was considered to be high in purity, with this level of purity regarded as remaining stable in recent months. Ketamine was typically considered to be difficult to obtain.

15.7 GHB

Less than one tenth of respondents had ever used GHB and only three participants had used GHB during the six months preceding the interview, compared to only six participants among the 2003 sample. There was no lifetime or recent use of GHB-like substances such as 1,4B or GBL among the current sample. GHB had typically been used orally and only on a total of three or less occasions in the six months prior to interview. As such, this indicates predominantly experimental use by few people. Few participants were able to confidently report on the price, purity or availability of GHB in Tasmania, though key experts generally indicated that the availability, use and popularity of the drug is relatively low.

15.8 LSD and other psychedelics

Half of the REU respondents had used LSD at some stage of their lives and one third had used LSD in the six months preceding the interview, which is slightly greater in comparison to the 2003 sample. A significantly greater proportion of males had ever and recently used LSD in comparison to the proportion of females. One tab or drop of liquid of LSD was taken orally in a typical session of use, and LSD had been used on a median of 2.5 days in the preceding six months which is greater than the frequency of

use of 1 day among the 2003 sample. The median price for one tab of LSD was $20, which has remained stable over the last two years. A greater proportion of users perceived that LSD was low in purity in comparison to 2003. There were mixed reports in regard to the availability of LSD, with it being considered as difficult to obtain by half of those that commented and easy to obtain by the other half.

Sixty percent of respondents had used psychedelic mushrooms and over one third had used mushrooms during the six months preceding the interview. A greater proportion of males had ever used mushrooms in comparison to females. Mushrooms had been used on a median of three days in the preceding six months or approximately every two months, and this was greater for males in comparison to females. Over half of the sample had used some form of psychedelic (either LSD or mushrooms) in the last six months.

Recent experimental use of hallucinogenic phenethylamines was also noted among some participants. A recent increase in the use of the research chemical 2C-I was noted by both REU and KEs, and five regular ecstasy users had recently but infrequently used the drug. Use of this drug was not noted among the 2003 participant sample. Despite the fact that effects and risks of research or experimental chemicals are largely unknown, these may be readily available and not necessarily illegal in all countries.

15.9 MDA

One fifth of participants had used MDA at some stage of their lives and less than one fifth had recently used MDA, which is slightly less in comparison to the proportion of participants in 2003. Use of MDA was more common among males in comparison to females. MDA had typically been used three times or less in the six months preceding the interview, with one capsule consumed orally in a typical session of use. Fewer respondents were able to confidently comment on the price, purity or availability of MDA in comparison to the 2003 sample. The median price for one MDA capsule was $40 which is $10 less in comparison to the price reported in 2003, but was considered to have remained stable in the six months preceding the interview. MDA purity was considered to be medium or high and stable over the preceding six months. While consumer reports on the availability of MDA were mixed, based on the pattern of MDA use and the comments of several KEs the local availability of MDA appears to be relatively low, and to have declined slightly since 2003.

15.10 Other drugs

A majority of participants had recently used alcohol, cannabis, and tobacco. Alcohol had been used on median of two days per week in the six months preceding the interview, or approximately twice a week. Cannabis had been used on a median of one day per week compared by the current participants to the median of two days per week amongst the participants interviewed in 2003. The frequency of this use was greater for males in comparison to females. Two thirds of the sample had typically used cannabis when coming down from ecstasy. Tobacco had recently been used by three quarters of the sample and over half of these participants had smoked tobacco on a daily basis in the last six months, with others smoking tobacco less frequently. The proportion of daily smokers amongst the current sample of participants was greater in comparison to the proportion of

regular smokers in the general population, possibly suggesting a greater prevalence of this risky health behaviour among this population.

Use of inhalants such as amyl nitrite and nitrous oxide were relatively common. One quarter of the sample had recently inhaled amyl nitrite which is a substantial reduction in comparison to the level of use reported among the 2003 cohort (43%). Several KEs indicated that the use of amyl nitrite had decreased in recent months. One third of participants had recently used nitrous oxide compared to one quarter among the 2003 sample. However, nitrous oxide had been used relatively infrequently with three quarters using less than monthly.

Almost one quarter of the sample had recently used benzodiazepines, on a median of one day per month in the last six months. Recent use of benzodiazepines was more common among females in comparison to males and was typically used by one tenth of the sample, when coming down from ecstasy. Only four participants had recently used antidepressants and there was less recent use of antidepressants among the sample in comparison to 2003. Antidepressants were typically taken either as prescribed or infrequently and not in conjunction with ecstasy.

The use of other pharmaceuticals and opioid drugs was relatively rare among the regular ecstasy users interviewed in the current study and those that had recently used these drugs had generally done so infrequently. Just over one tenth had recently used pharmaceutical stimulants (such as dexamphetamine or methylphenidate), with a median frequency of approximately once every two months. Only small proportions of the sample had recently used methadone, or 'other opiates' such as morphine, pethidine and opium and there was no recent use of heroin or buprenorphine.

15.11 Risk behaviour

Less than one in ten regular ecstasy users (9%) had recently used substances intravenously compared to one in 5 among the 2003 cohort. Methamphetamine was typically the first drug ever injected and the most common drug ever and recently injected. The sharing of needles was relatively rare; however, two out of five had recently shared other injecting equipment such as spoons, tourniquets, filters and water. All recent injecting drug users had obtained injecting equipment from NSP /NAP outlets during the preceding six months; however, one fifth reported some difficulty in obtaining needles during this time in terms of the accessibility of outlets.

Eighty percent of participants that had been sexually active in the preceding six months reported recent penetrative sex under the influence of ecstasy and related drugs during this time. Those that had recently binged on ecstasy and related drugs were more likely to have recently had sex under the influence of drugs. One in five used protection every time they had sex under the influence with regular partner, and one in three used protection every time that they had sex with a casual partner when under the influence of ecstasy and related drugs. Whereas one third of regular ecstasy users (33%) had been for a sexual health check up in the last year, one half (53%) had never had a sexual health check up. Two thirds of the sample had not ever been tested for hepatitis C or HIV.

Over half of the participants interviewed in the present study had driven soon after using drugs other than alcohol in the six months preceding the interview, typically, cannabis, ecstasy, and methamphetamine powder. A greater proportion of males had recently driven under the influence of drugs in comparison to females and those who had driven under the influence of ecstasy and related drugs had typically used ecstasy more frequently and in greater amounts in the preceding six months compared to those that hadn't. Those that had recently binged on ecstasy and related drugs were more likely to have recently had driven under the influence of drugs.

One third of participants had recently binged on or used ecstasy and related drugs for more than 48 hours without sleep. Those that recently had binged had generally been using ecstasy for a longer period of time, had recently used ecstasy more frequently, had experimented with a greater number of drugs, and were more likely to have recently used methamphetamine. As mentioned above, those that had recently binged were more likely to have recently had penetrative sex under the influence of drugs and to have recently driven under the influence of drugs. However, it is not possible to clearly assess the relationship between these risk behaviours and the associated drug use factors in the present report.

15.12 Health related issues

Less than one fifth of the sample had overdosed (passed out or fallen into a coma) on any drug in the six months preceding the interview, and alcohol was the main drug involved in thirteen out of these eighteen cases, and had been used in all but one of these cases. Ecstasy was the main drug attributed as underlying this experience of overdose in only two cases, and had been used in a further four cases that were attributed to alcohol. With the exception of alcohol, all overdoses involved more than one drug. Those who had recently overdosed were more likely to be injecting drug users and were more likely to have recently used other opiates and antidepressants.

One tenth of the sample had accessed health services in relation to drug use in the preceding six months. Only four participants had accessed health services in relation to ecstasy use. Those that had recently accessed health services had used a greater number of drug types in their lifetime and in the six months preceding the interview, than those that did not.

Two thirds of the sample had recently experienced work/study problems in relation to drug use and over one third had recently experienced financial and social/relationship problems in relation to drug use. Females were more likely to experience work/study problems in relation to drug use in comparison to males. Those that had recently experienced social/relationship problems had first started using ecstasy at an earlier age. Whereas the majority of these problems were relatively minor, a small proportion of the sample experienced more serious problems such as ending a relationship, being kicked out of home, or having no money to pay for food or rent.

Whereas approximately half of the participants interviewed had actively sought information about the effects or risks associated with different drug types and 'batches' of ecstasy pills, half of the participants only sometimes or never found out about these effects or risks. Friends and websites were the most commonly accessed information resources followed by information pamphlets and other people or dealers. Close to two thirds of the regular ecstasy users (64%) indicated that they had 'sometimes' bought a drug and it turned out to have different effects than they expected in the last six months. Regular ecstasy users indicated that resources such as a local website, information pamphlets, and testing kits would be most useful harm reduction options for either themselves or the local ecstasy and related drug user community. Posters and venue outreach at organised events were also considered to be useful resources.

15.13 Criminal and police activity

With the exception of dealing drugs, only one in twenty participants had committed criminal offences in the six months preceding the interview, and all of these related to infrequent property crime offences (such as shoplifting). Similarly, key experts generally indicated that there was no or little crime among the group of regular ecstasy users that they were familiar with. One sixth of the sample had recently sold drugs for cash profit compared to one quarter of the 2003 cohort. Over half of those that had sold drugs had done so less than monthly. Less than one tenth of the sample had funded their own ecstasy use through selling drugs compared one fifth among the 2003 sample. One third of regular ecstasy users and several key experts perceived that there had been an increase in police activity towards ecstasy users in the last six months. The perceived increase in activity was generally related to covert surveillance, particularly at events and venues. However, the majority of regular ecstasy users indicated that police activity had not made it more difficult for them to obtain drugs.

16.0 IMPLICATIONS

It is important to remember that the aim of the PDI is to investigate the patterns of drug use, drug markets and associated risks and harms among a sentinel group of participants that use ecstasy on a regular basis, as such, this population is not necessarily representative of all users of ecstasy and related drugs and the prevalence of ecstasy and other drug use can not be directly inferred. However, the study is designed to identify emerging trends and important issues and the findings of the 2004 PDI suggests the following areas for future monitoring, research and consideration in policy:

- The decreased price and increased purity and availability of ecstasy in Hobart indicates an expanding and emerging market and qualitative comments of both regular ecstasy users and key experts indicate that the use of ecstasy may have become more widespread and socially acceptable. As such, further monitoring of emerging trends and a proactive response in terms of harm reduction strategies is clearly warranted.

- The high level of coincident binge alcohol and ecstasy use was previously identified as a key issue from the 2003 study and an even greater and substantial proportion of participants were engaging in this practice among the 2004 cohort. Larger quantities of alcohol can be consumed when under the influence of psychostimulants without necessarily experiencing the immediate effects of intoxication; however, the harms associated with this use still occur. Further, most of the overdose episodes reported by participants' involved alcohol and/or polydrug use. Further research into the risks of concomitant binge drinking and ecstasy use is clearly warranted as well as an improvement of the awareness of the risks of this behaviour and polydrug use in general.

- Over half of participants reported driving under the influence of ecstasy and related drugs indicating the need for future monitoring and research in this area. Specifically, research into the actual degree of risk associated with driving under the influence of these drugs as well as factors associated with the decision to drive and the demographics/characteristics of these individuals may be particularly important, so that they may be better targeted for education/awareness campaigns.

- Whereas the use and availability of the more potent crystal methamphetamine form seems to have decreased and the use of potentially harmful substances such as GHB is currently relatively low in Tasmania, it is imperative that the use and availability of such drugs is continually monitored in future years in order to identify any emerging trends in a timely fashion. The recent increased use of research chemicals, in particular 2C-I, should be continually monitored and efforts made to increase the awareness of the 'largely unknown' risks associated with the use of such chemicals. It is also important that health and emergency services and venue and event staff are informed of such emerging trends in illicit drug markets.

- Although half of the regular ecstasy users interviewed in the current study were actively seeking harm reduction information in relation to the substances that they chose to use, these messages were not necessarily reaching other users. Participants generally indicated that access to resources such as websites, information pamphlets, testing kits, posters and venue outreach would benefit either themselves or the local ecstasy and related drug using community.

- Information on the effects or risks of ecstasy and related drugs were typically sought from peers or peer run organisations. As such it is likely harm reduction programs will receive maximum impact if delivered through peers or peer-based organisations and mediums appropriate to the target group such as internet sites and outreach workers at dance and related events. Further, as REU do not typically come into contact with traditional health services in relation to their drug use, harm reduction information needs to be easily accessible and therefore either web based or implemented at locations that are frequented by users.

- Posters may be particularly useful for providing simple and immediate reminders, particularly in relation to risk behaviours such as binge drinking, safe sex, driving under the influence, and acute risks such as dehydration and overheating. Similarly the provision of sharps containers and condoms may also help to reduce risky behaviours among this population. However, these practices are most likely to be adopted and implemented effectively if a non-selective minimum standard for providing harm reduction information and equipment was adopted in nightclubs and other entertainment venues.

- While there are some limitations to the use of commercially available ecstasy 'testing kits', currently there is often very little information available to consumers in regard to the substances contained within the tablets that are sold on the local market, and two thirds of the participants in the current study indicated that they had sometimes bought a drug and it turned out to have different effects than expected. Limitations aside, use of these kits may allow consumers to be more informed about the tablets that they choose to use. Testing kits can currently be purchased over the internet but are currently not available from any local source. There may be some benefit from a peer-based or non-government organisation making these available locally on a not-for-profit or cost-recovery basis, or facilitating provision of testing at dance and related events. The use and/or supply of testing kits under these circumstances would also allow for the limitations of these kits to be conveyed more thoroughly and effectively to users.

- Considering that ecstasy and related drugs seem to have become enmeshed in drinking culture and the fact that several REUs and KEs noted an increase in the social acceptance of ecstasy and in the number of younger people using the drug, cohesive education programs within schools and in the media may allow younger users to make informed and safer choices in relation to drug use. Education programs are likely to be most effective if they peer delivered, accurate, up to date and explore issues that are of local relevance, to maximise the credibility of the information provided. By contrast, illicit drug education programs based around 'fear arousal' have been shown to be ineffective (West & O'Neal, 2004; Skiba, Monroe & Wodarski, 2004), and these, and associated sensationalised reporting of drug use in the media, have the real potential to undermine the credibility of this and other research, as well as detracting from the potential for successful harm reduction to occur from such endeavours.

- Future harm reduction efforts may be greatly benefited by further research among different local populations of ecstasy and related drug users or local niche markets. For example, events showcasing different genres of music and factors such as event location and size are anecdotally reported to attract different groups of users with distinct patterns of drug use, risk activity, and associated harms. Future investigation into the patterns of use, risk, and harm among these niche markets may allow for harm reduction messages to be tailored and better targeted to appropriate groups of users.

- Web-based information resources were commonly used by participants to access information about the effects and risks of ecstasy and related drugs and a large proportion of users considered a local website to be a useful information resource. Alternatively, efforts could be made to increase access or local activity by consumers on existing web-based resources, particularly in relation to fluctuations in ecstasy markets such as impurities or dangerous substances in the batches of ecstasy pills available locally. The allocation of a peer-based group to facilitate and administer such activity may decrease security and reliability concerns among users.

- The use of psychedelics such as LSD and mushrooms as well as the experimental use of other hallucinogenic phenethylamines was relatively common among the participants interviewed over the last two years of the study. As such, it is likely that users of ecstasy and related drugs will come into contact these drug types and thus information regarding the differential effects and risks of these drugs should be conveyed to users and emerging trends continually identified and monitored.

- Although the majority of participants did not experience significant symptoms of dependence in relation to ecstasy, there was evidence that a small proportion of participants experienced *some* symptoms of dependence. These findings indicate that future research into the issue of dependence in regard to this drug may be warranted.

- There was some evidence for an association between binge use of drugs and risk behaviours such as driving or having sex under the influence of ecstasy and related drugs, particularly among more experienced drug users. Given that it is not possible to clearly dissociate these relationships in the present study, future research into the factors associated with risk behaviours is clearly required.

- Whereas the sharing of needles was relatively uncommon among the small group of injecting drug users interviewed in the current study, the sharing of injecting equipment was more common. Efforts should be made to increase the awareness of the risks associated this practice amongst the local REU population. Additionally, given the difficulties some participants reported in regard to the access of sterile injecting equipment, steps to increase the awareness of the locations, stock provided, and opening hours of local NAP outlets may be appropriate.

- An anecdotal increase in the number of people shelving/shafting ecstasy was noted among both participants and key experts. This route of administration is potentially more harmful than ingestion as detoxification by the liver is less for substances absorbed in the large intestine.

REFERENCES

Australian Drug Foundation (2005). ADF position on Gamma-hydroxybutyrate (GHB). http://www.adf.org.au/article.asp?ContentID=ghb. (Accessed 28 Feb, 2005).

Australian Bureau of Criminal Intelligence (1997). *Australian Illicit Drug Report 1995-96*. Canberra: ABCI

Australian Bureau of Criminal Intelligence (1998). *Australian Illicit Drug Report 1996-97*. Canberra: ABCI

Australian Bureau of Criminal Intelligence (1999). *Australian Illicit Drug Report 1997-98*. Canberra: ABCI

Australian Bureau of Criminal Intelligence (2000). *Australian Illicit Drug Report 1998-99*. Canberra: ABCI

Australian Bureau of Criminal Intelligence (2001). *Australian Illicit Drug Report 1999-00*. Canberra: ABCI

Australian Bureau of Criminal Intelligence (2002). *Australian Illicit Drug Report 2000-01*. Canberra: ABCI

Australian Crime Commission (2003). *Australian Illicit Drug Report 2001-02*. Canberra: Australian Crime Commission

Australian Crime Commission (2004). *Australian Illicit Drug Report 2002-03*. Canberra: Australian Crime Commission

Australian Crime Commission (2005). *Australian Illicit Drug Report 2003-04*. Canberra: Australian Crime Commission

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).

Australian Institute of Health and Welfare (2002). *2001 National Drug Strategy Household survey: First Results*. AIHW cat. no. PHE 35. Canberra: AIHW (Drug Statistics Series).

Australian Institute of Health and Welfare (2002). *2001 National Drug Strategy Household survey: State and Territory Supplement*. AIHW cat. no. PHE 37. Canberra: AIHW (Drug Statistics Series).

Breen, C., Topp, L., & Longo, M. (2002). *Adapting the IDRS methodology to monitor trends in party drug markets: Findings of a two-year feasibility trial*. National Drug and Alcohol Research Centre Technical Report No. 142. Sydney: University of New South Wales.

Bruno, R., & McLean, S. (2004). *Tasmanian Party Drug Trends 2003: Findings from the Party Drugs Initiative (PDI).* National Drug and Alcohol Research Centre Technical Report No. 186. Sydney: University of New South Wales.

Caldicott, D.G.E., Chow, F.Y., Burns, B.J., Felgate, P.D., & Byard, R.W. (2004). Fatalities associated with the use of γ-hydroxybutyrate and its analogues in Australasia. *Medical Journal of Australia, 181,* 310-313

Chesher, G.B. (1993). Pharmacology of the sympathomimetic psychostimulants. In: D. Burrows, B. Flaherty & M. MacAvoy (Eds.), *Illicit Psychostimulant Use in Australia* (pp. 9-30). Canberra: Australian Government Publishing Service.

Degenhardt, L., Darke, S. & Dillon, P. (2003) The prevalence and correlates of gamma-hydroxybutyrate (GHB) overdose among Australian users. *Addiction 98***,** 199-204.

The Vaults of Erowid, (2005). http://www.erowid.org.html (Accessed 28 Feb, 2005).

Topp, L. & Churchill, A. (2002). Australia's Dynamic Methamphetamine Markets. *Drug Trends Bulletin, June, 2002*. Sydney: National Drug and Alcohol Research Centre.

Topp, L., & Mattick, R.P. (1997). Choosing a cut-off on the Severity of Dependence Scale (SDS) for amphetamine users. *Addiction, 92,* 839-845.

Wardlaw, G. (1993). Supply reduction (law enforcement) strategies pertaining to illicit use of psychostimulants. In: D. Burrows, B. Flaherty & M. MacAvoy (Eds.), *Illicit Psychostimulant Use in Australia.* Canberra: Australian Government Publishing Service.