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**TASMANIAN TRENDS IN ECSTASY AND
RELATED DRUG MARKETS 2013**
Findings from the
Ecstasy and Related Drugs Reporting System
(EDRS)

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TASMANIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2013



Findings from the Ecstasy and Related Drugs Reporting System (EDRS)

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ABBREVIATIONS

1,4B	1,4 butanediol
2CB	4-bromo-2,5-dimethoxyphenethylamine
2CE	2,5-dimethoxy-4-ethylphenethylamine
2CI	2,5-dimethoxy-4-iodophenethylamine
2C-T-7	2,5-dimethoxy-4-(n)-propylthiophenethylamine
5-HTP	5-hydroxytryptophan
5-MEO-DMT	5-methoxy-N,N-dimethyltryptamine
ABCI	Australian Bureau of Criminal Intelligence
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AGDH&A	Australian Government Department of Health and Ageing
AUDIT	Alcohol Use Disorders Identification Test
AIHW	Australian Institute of Health and Welfare
A&TSI	Aboriginal and/or Torres Strait Islander
BBVI	blood-borne viral infections
BZP	benzylpiperazine
CIDI	Comprehensive International Diagnostic Interview
DACAS	Drug and Alcohol Clinical Advisory Service
DHHS	Department of Health and Human Services
DMT	N,N-dimethyltryptamine
DOI	2,5-dimethoxy-4-iodoamphetamine
DSM	Diagnostic and Statistical Manual (of mental disorder)
DXM	dextromethorphan
DUI	driving under the influence
ERD	ecstasy and related drug(s)
EDRS	Ecstasy and Related Drugs Reporting System
GBL	gamma-butyrolactone
GHB	gamma-hydroxy-butyrate
GLBT	gay lesbian bisexual transgender
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
ICD	International Classification of Diseases
IDDI	Illicit Drug Diversion Initiative
IDRS	Illicit Drug Reporting System
IDU	injecting drug user
K10	Kessler Psychological Distress Scale
KE	key expert(s) (previously 'key informant')
LSA	d-lysergic acid amide
LSD	d-lysergic acid
M	mean
MAOI	monoamine oxidase inhibitor
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine (ecstasy)
MDEA	3,4-methylenedioxyethamphetamine
MDPV	methylenedioxypropylvalerone
MSM	methylsulfonylmethane
N	(or n) number of participants

NPS	New psychoactive substances
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NDS	National Drug Strategy
NDSHS	National Drug Strategy Household Survey
NMDS	National Minimum Data Set for Alcohol and other Drug Treatment Services
NSP	Needle and Syringe Programs
OCD	Obsessive-compulsive disorder
OFT	Oral fluid test
PDI	Party Drugs Initiative (now EDRS)
PCP	phencyclidine
PMA	paramethoxyamphetamine
PTSD	Post-traumatic Stress Disorder
PWI	Personal Wellbeing Index
REU	regular ecstasy user(s) (previously 'party drug user')
SD	standard deviation
SDS	Severity of Dependence Scale
SPSS	Statistical Package for the Social Sciences
SSRI	specific serotonin reuptake inhibitor
95%CI	95% confidence interval

EXECUTIVE SUMMARY

Demographic characteristics of REU

The sample of 76 regular ecstasy users (REU) interviewed in 2013 were typically in their early 20s (range 18-42 years). Just over one-half (57%) of the sample were male. A majority of participants (74%) had completed Year 12, and 41% had completed tertiary qualifications after school (university or trade/technical). Two-thirds (67%) were employed (either full-time or part-time/casual) and 17% were currently students. Few participants had come into contact with drug treatment agencies (3%). These demographic characteristics are generally similar to previous cohorts. However, there were significantly fewer full-time students (4% vs. 35%) compared to 2012.

Patterns of polydrug use over time

Polydrug use was the norm among the REU interviewed, with most having used a range of drug classes in the preceding six months. Recent use of alcohol, tobacco, cannabis, and methamphetamine powder was most common, and at least one-quarter had used LSD, benzodiazepines, or mephedrone. Compared to 2012, a significantly smaller proportion reported recent use of amyl nitrate (9% vs. 27%), and nitrous oxide (9% vs. 24%), and a significantly greater proportion reported use of mephedrone (24% vs. 10%).

Ecstasy

On average participants had been using ecstasy for five years and had first used ecstasy at around 18 years of age (range 13-28 years).

Ecstasy had typically been used in tablet (95%), capsule (53%), or crystal (48%) form in the last six months, with use of ecstasy powder less common (20%). There was a significant decline in the proportion reporting recent use MDMA capsules in 2012 (53% vs. 75%), with a similar decline seen in the median frequency of capsule use (2 days vs. 6 days). In contrast, an increase was found in the proportion (48%) reporting recent use of MDMA crystals, a trend that was noted only anecdotally in 2012. Ecstasy was typically taken orally, but snorting of ecstasy was also common.

There was a wide variation in the frequency of ecstasy use among the sample, ranging from monthly to several times a week. On average, ecstasy had been used on 10 days in the last six months or approximately fortnightly, with a median of two ecstasy tablets taken in a typical session of use.

Ecstasy was typically last used at music-related venues including nightclubs and pubs; or in private residences.

There were some concerning patterns of use among the sample from a health perspective. One-tenth (13%) had recently used ecstasy weekly or more frequently, one-fifth (22%) had used ecstasy in a 'binge session' (a continuous 48-hour period of drug use without sleep) and over one-tenth (15%) reported using more than two tablets in a typical session of use.

Ecstasy was typically consumed in combination with other drugs – in a typical session, alcohol, cannabis, and tobacco were commonly used. A large majority (85%) reported consuming more than five standard drinks when they were under the influence of ecstasy,

Data from the NDSHS showed a steady increase in the national prevalence of ecstasy use in Australia between 1995 (0.9%) and 2007 (3.5%), with a significant decrease noted in 2010 (3.0%). The estimated prevalence of recent ecstasy use in Tasmania increased from 1.6% in 2004 to 2.4% in 2007, with a non-significant decrease found in 2010 (1.7%).

Price, purity and availability of ecstasy

The median last purchase price for ecstasy was \$30 for one tablet (range \$20-40) or one capsule (range \$20-40). No recent price changes were noted and two-thirds (63%) indicated that price had remained stable in the past six months.

Ecstasy was reported to be medium (49%) or fluctuating (30%) in purity. These estimates are consistent with 2012 data, where there was a return to baseline following the low purity estimates observed in 2010 and 2011 when two-fifths (41-47%) of the sample reported that ecstasy was low in purity.

Ecstasy was reported to be easy (50%) or difficult (35%) to obtain in 2013 and the proportion reporting that ecstasy was currently difficult to obtain was significantly greater when compared to 2012 (35% vs 10%). Similarly a significantly greater proportion reported that ecstasy had recently become more difficult to obtain when compared to 2012 (33% vs. 6%).

In summary, while the perceived purity and price of ecstasy were similar to 2012, the perceived availability of ecstasy was lower.

Ecstasy markets and patterns of purchasing

Consistent with previous years, ecstasy was typically last purchased from friends and last obtained from a friend's home, the respondent's own home, a nightclub or a public bar. Three-fifths (60%) indicated they had last purchased ecstasy both for themselves and for other people. A median of three tablets (range 1-10 tablets) had been purchased on the last occasion.

Although the ecstasy market is predominantly based on individuals sourcing the drug for other friends while making no cash profit, those that purchase ecstasy in larger quantities may be putting themselves at risk of being arrested as a provider rather than a consumer of the drug. Under Tasmanian legislation, the offences of possession, supply, and trafficking of a controlled substance are based on various factors including 'intent' and are not necessarily determined by the quantity of the seized substance. However, the offence of trafficking, which carries the largest penalty, may be determined by possession of a trafficable amount of a controlled substance. For ecstasy (MDMA), this trafficable amount is 10 grams.

Methamphetamine

Three-fifths (57%) of the 2013 REU sample had used some form of methamphetamine in the preceding six months which is not statistically different to 2012 (64%).

Methamphetamine was used on a median of three days during this period (once every two months on average) in relatively small amounts (two points or 0.2 grams).

Recent use of methamphetamine powder was most common (61%), with lower levels of use for crystal methamphetamine (17%) and methamphetamine base (7%). There was an upward trend in the proportion reporting recent use of crystal methamphetamine from 5% in 2011 to 17% in 2013.

Methamphetamine powder was typically snorted or swallowed, base was typically swallowed, and crystal was typically smoked.

The median last purchase price for one point (0.1 gram) of methamphetamine powder was \$50 (range \$20-100), which is similar to 2012 but higher than years prior to this (\$35-40). The median last purchase price for one gram of methamphetamine powder (\$300) was also higher in 2012 and 2013 than the prices reported between 2009 and 2011 (\$250-255).

Although based on a small sample size, the median last purchase price for one point of crystal methamphetamine was considerably higher at \$100, a finding corroborated by several key experts (KE) (n=4)

Methamphetamine powder was reported to be medium or high in purity and the proportion reporting that it was high in purity tended to be greater than 2012 (17%). This purity was reported to be stable (47%) or fluctuating (41%) during the previous six months.

Two-thirds (66%) reported that powder was easy or very easy to obtain compared to a similar proportion in 2012 (53%), but lower than the eight years prior to 2012 (71-90%). Small sample sizes in relation to crystal and base and low levels of recent use among the current cohort both suggest low availability of these forms in 2013.

Cocaine

Less than one-fifth (17%) of the 2013 sample had used cocaine during the six months preceding the interview, representing a significant decline relative to 2011 (39%) and 2010 (49%). This downward trend in recent use is in contrast to the upward trend observed in the years prior to this.

Recent cocaine use was significantly more common among older (32%) relative to younger (3%) participants (based on a median split for age).

Cocaine was most typically snorted and was used on a median frequency of three days (range 1-6 days) in the last six months. An average of one gram was used in a typical session. Consistent with the relatively low use of cocaine among the current cohort, few REU were able to comment on the price, purity and availability of the drug and the results should be interpreted with caution.

The median last purchase price for one gram of cocaine was stable at \$300 (range \$280-350) and no recent price trends were noted.

Cocaine was reported to be low (43%), medium (29%) or high (29%) in purity and this purity was reported to have remained stable (80%) in the last six months.

The majority of those who commented on the availability of cocaine indicated that it was currently difficult (38%) or very difficult (50%) to obtain, and availability was reported to have remained stable in the last six months.

LSD and other psychedelics

Almost four-fifths (79%) of the 2013 sample had used LSD at some stage of their lives and almost two-fifths (38%) had used LSD in the six months preceding the interview which is not significantly different to the proportion in 2012 (38%).

LSD had been used on a median of two days (range 1-12 days) in the preceding six months with one tab or drop of liquid LSD (range 0.25-5) taken orally in a typical session of use.

The median last price for one tab/drop of LSD in 2012 was \$20 (range \$5-25) and no recent price trends were noted.

The purity of LSD was considered by REU to be high (39%) or medium (30%) and to have remained stable or fluctuated during the last six months.

A large majority of those commenting indicated that LSD was very easy (17%) or easy (54%) to obtain and that availability had recently been stable (65%).

LSD was typically last obtained from friends and was most commonly last obtained from private residences or at a rave/doof/dance party.

Less than one-fifth (15%) had used mushrooms in the preceding six months, compared to a greater proportion in 2012 (26%). Mushrooms had been used on a median of 2.5 days (range 1-24 days) during this time.

Cannabis

While the National Drug Strategy Household Survey demonstrated a decrease in cannabis use in the general population nationally between 2004 (11.3%) and 2007 (9.1%), there was a significant increase in use between 2007 and 2010 (10.3%). In contrast, recent cannabis use in Tasmania continued to decrease between 2007 (10.8%) and 2010 (8.6%).

Over three-quarters (78%) of the 2013 REU sample had used cannabis during the six months preceding the interview. Among the REU sampled, cannabis had typically been smoked, with around two-fifths recently ingesting the drug. The median frequency of cannabis use was 48 days (range 1-180) or approximately two days per week, compared to a higher median frequency in 2012 (120 days) and lower median frequencies in previous years (11-25 days). Daily cannabis smoking was also greater among the 2013 (22%) and 2012 (32%) samples relative to previous years (5-17%).

The median quantity used on the last day of use during this time was seven cones (range 1-20) or one joint (range 0.25-7).

The median last purchase price for one ounce of hydroponically-grown ('hydro') cannabis was \$280 (range \$120-350), compared to \$300 (range \$150-350) in 2012. The median last purchase price for one ounce of bush grown ('bush') cannabis was \$200 (range \$150-280) compared to \$250 in 2012 (range \$70-320). Prices per quarter ounce were also lower in 2013 compared to 2012 for both hydro (\$80 vs. \$90) and bush (\$65 vs. \$70).

The potency of hydro was reported to be high (44%) and the potency of bush was reported to be medium (51%) with no recent changes noted.

Both bush and hydro were reported to be easy or very easy to obtain, and this level of availability was generally perceived to have remained stable during the six months preceding the interview.

Alcohol

All (100%) of the 2013 REU sample had recently consumed alcohol, on an average of three days a week in the last six months. A majority (76%) had used alcohol at least weekly (but not daily), which is substantially higher than the estimate of prevalence in the general population (43.9%), among those aged 20-29 nationally – a comparable age group to the current REU cohort).

Tobacco

Tobacco had recently been used by three-quarters (76%) of the sample. Almost one-half (45%) reported daily use in the last six months, similar to the proportion in 2012 (61%) but significantly higher than the 2010 population estimate for this age group (20-29) both in Tasmania (25.5%) and nationally (18%).

Mephedrone and other new psychoactive substances

Almost one-quarter (24%) reported use of mephedrone in the last six months, which is significantly greater than 2012 (10%), similar to 2011 (27%) and significantly fewer relative to the peak in use observed in 2010 (47%). Mephedrone was snorted or swallowed on a median of three days (range 1-12 days) in the last six months.

Recent use of other new psychoactive substances (NPS) was relatively low. The most commonly used substances in the last six months were DMT (11%), 2CB (5%), 2CI (4%), DXM (4%), MDPV (4%), herbal highs (4%), mescaline (3%) and 5-MeO-DMT (3%). In addition, one-fifth of the sample (20%) reported recent use of capsules of unknown content.

Patterns of other drug use

Consistent with the low levels of use reported in previous years, less than one-tenth reported recent use of ketamine (9%) or MDA (8%) and none reported recent use of GHB/GBL/1,4B.

There was less use of inhalants among the 2013 sample, with a significantly lower proportion reporting use of amyl nitrate (9% vs. 24%) and nitrous oxide (9% vs. 27%) compared to 2012.

Almost one-third (34%) of REU had used benzodiazepines during the last six months, with almost one-third (30%) reporting illicit (non-prescribed) use and one-tenth (8%) reporting licit use. The proportion of REU reporting illicit benzodiazepine use is much higher than recent estimates of past-yearly use in the general population aged 20-29 years (2.6%). However, use of illicit benzodiazepines relatively low in frequency, at three days (range 1-40 days) in the last six months.

One-tenth of the sample (9%) reported recent licit (as prescribed) use of antidepressants and none reporting recent illicit use.

One-fifth (18%) of REU reported recent illicit use of pharmaceutical stimulants (such as dexamphetamine or methylphenidate) in 2013. The median frequency of use was three days (range 1-12 days) in the last six months, with a median of two tablets (range 1-5) taken in a typical session of use.

Only small proportions of the 2013 sample had recently used heroin (5%), buprenorphine (4%) or methadone (1%) and one-tenth (11%) reported recent use of other opioids (restricted pharmaceuticals and alkaloid poppy derivatives).

A small proportion (3%) reported recreational use of stimulant-based over-the-counter preparations and almost one-tenth (9%) reported recent non-pain use of over-the-counter codeine preparations.

Health-related issues

Overdose. Less than one-tenth (8%) of the 2013 REU sample had overdosed on a drug in the preceding six months. This is consistent with the relatively low proportion of participants reporting an overdose episode in previous years. In 2013, 4% reported a recent overdose episode on a stimulant drug (typically methamphetamine) and 4% reported a recent overdose on a depressant drug (e.g., alcohol, benzodiazepines, heroin). While these symptoms of overdose were not medically trivial, most participants had not received any formal medical treatment in relation to an overdose episode.

Access to health services. One-half of REU reported accessing a health/medical service in the past six months for any reason, most commonly a general practitioner (GP) (78%), dentist (28%), or psychologist (23%). Despite regular substance use, just under one-tenth (9%) of REU had accessed health services in relation to drug use in the last six months, and, when they did so, this was most commonly a GP (43%), psychologist (29%) or a drug and alcohol worker (29%). Participants had last accessed services in relation to the use of ecstasy (29%), cannabis (29%), or other opiates (10%).

Mental health problems. Two-fifths (41%) of the 2013 REU sample reported experience of mental health problems during the six months prior to the interview. Among these individuals, depression (74%) and/or anxiety (55%) were most commonly reported in the last six months. Just one-half (52%) of those who had experienced mental health problems had attended a health professional in relation to these problems during this time, suggesting an unmet demand for service provision.

Psychological distress. Mean scores on the Kessler psychological distress scale (K10) were higher among the current sample of REU relative to the general Australian population (ABS National Health Survey, 2009). The proportion of the sample with scores categorised as very high (9% vs. 3.5%); and high (28% vs. 8.5%) was significantly greater than the general Australian population. Those classified in the high (or very high) range have increased rates of experience of mental health problems and may benefit from interventions with health professionals.

Other problems. Over two-fifths (43%) of the 2013 sample reported a recurrent drug-related problem, suggestive of possible substance abuse. One-third of the sample (33%) indicated that their drug use had recurrently interfered with their responsibilities at home, at work, or at school, one-quarter (27%) reported repeated problems with family, friends, or people at work or school, one-fifth (19%) had recurrently found themselves in a situation where they were under the influence of a drug and could have put themselves or others at risk, and 1% reported recurrent drug-related legal problems. Problems were most commonly attributed to alcohol, ecstasy and cannabis.

Ecstasy dependence. One-fifth (19%) of REU reported experiencing significant symptoms of dependence in relation to ecstasy.

Tasmanian drug treatment data

While a number of calls have been made to the Tasmanian Alcohol and Drug Information Service over the last few years in relation to ecstasy (4-17 calls per annum), these account for a small percentage (between 0.7% and 2.6%) of the calls made to this service.

Data from the National Minimum Data Set (NMDS) for alcohol and other drug treatment services in Tasmania show that ecstasy was the principal drug of concern in only 0.5% of all treatment episodes in 2010/11 (equating to approximately 8 treatment episodes out of a total of 1,554).

Tasmania hospital admission data

Cannabis-related hospital admissions remained relatively stable between 2008/09 and 2010/11 (22-41 cases), and was below the national admission within this timeframe. A substantial increase in cannabis-related admissions was reported in Tasmania in 2011/12 (67 cases), representing an admission rate substantially greater than that seen nationally (255 vs 180 per million population).

Since 2008/09 the rate of admissions in Tasmania has been relatively stable and substantially below the national admission rate, with a rate of 84 (per million persons) reported in Tasmania in 2011/12 compared to a rate of 226 (per million persons) nationally. While both national and Tasmanian rates were higher in 2011/12 relative to the previous two years, this increase was greater nationally when compared to the Tasmanian figures.

There have been very few hospital admissions recorded in Tasmania in relation to cocaine in previous years. In 2011/12 there was a substantial increase in the Tasmanian admission rate for cocaine; however, this still remained below the national rate (11 vs. 18 per million population).

Risk behaviours

Injecting drug use. Around one-tenth (11%) of the 2013 REU sample had recently used substances intravenously. This was reported on a median frequency of 5.5 occasions (range 1-72) during the last six months or just under monthly on average. Methamphetamine, heroin, and other opioids were the most common drugs injected in the last six months. Sharing of needles and equipment was relatively uncommon.

Sexual risk behaviour. Almost three-fifths (56%) of REU reported penetrative sex with a casual partner during the six months preceding the interview and just over one-half (53%) reported sex with a casual partner while under the influence of drugs, most commonly alcohol, ecstasy, or cannabis. When under the influence of drugs, two-fifths (43%) reported always using protective barriers with a casual partner and one-fifth (18%) never used protective barriers. One-half (55%) of those who reported sex with a casual partner indicated that they did not use any protective barriers on the last occasion in the previous six months.

Two-fifths of the sample (45%) had never had a sexual health check-up. A majority (87%) of the sample had never been diagnosed with a sexually transmitted infection (STI) and the remainder had been diagnosed in the last year (4%) or more than a year ago (7%). The most commonly diagnosed STI was chlamydia (67%).

Drug driving. Of those who had driven a car, almost one-quarter (26%) reported driving at a time when they perceived themselves to be over the legal alcohol limit during the last six months, and one-half (55%) reported driving within an hour of taking illicit drugs in the last six months. Most commonly, participants reported driving under the influence of cannabis (82%), ecstasy (25%) or methamphetamine (14% powder, 4% base, 4% crystal).

The proportion of REU reporting DUI of ecstasy and methamphetamine has declined since 2006. DUI of cannabis declined between 2006 and 2009, increased in 2011 and has remained relatively stable since this time.

One-half (51%) of recent drivers indicated that the introduction of saliva testing had changed their drug driving behaviour. Among those who had changed their behaviour, the most common changes in behaviour included: not driving after using drugs (65%), waiting for a few hours before driving (23%), using a taxi (15%), using a bus (12%) and organising another driver (12%).

Alcohol Use Disorders Identification Test (AUDIT). One-third (29%) of REU who completed the AUDIT scored in zone 4 (those in this zone may be referred to evaluation and possible treatment for alcohol dependence) which is similar to the proportion in 2012 (33%). A further 11% scored in zone 3 (harmful or hazardous drinking), two-fifths (45%) scored in zone 2 (alcohol use in excess of low-risk guidelines¹), and just 11% scored in zone 1 (a level reflecting low-risk drinking or abstinence).

¹ It should be noted that this threshold for low-risk is based on standards employed in the 2007 National Drug Strategy Household Survey, which represents a threshold substantially higher than that specified by the National Health and Medical Research Council in their revised guidelines. However, the thresholds used in the Household Survey have been reported here in order to facilitate comparisons with such national indicators.

Binge drug use. One-third (33%) had recently binged on ERDs (a continuous period of use for more than 48 hours without sleep), on a median of two occasions (range 1-14) in the last six months. Substances most commonly used in a binge session of use were alcohol (88%), cannabis (72%), ecstasy (68%), methamphetamine (powder 44%; base 4%; crystal 20%), energy drinks (28%) and LSD (24%).

Criminal activity, policing and market changes

Criminal activity. One-third (35%) of the 2013 REU sample reported taking part in any criminal activity in the last month. The most common crimes were drug dealing (21%) and property crime (19%). Over one-tenth (17%) of REU had been arrested during the preceding 12 months. Arrests were generally for non-drug related offences.

Arrests and seizures by Tasmania Police. There was a substantial increase in the number of both consumer and provider arrests and seizures in relation to ecstasy between 2006/07 and 2009/10 relative to any previous years. Between 2010/11 and 2012/13 the number of arrests and seizures has been substantially lower than the years prior to this.

The number of methamphetamine-related arrests increased substantially in the 2006/07 and 2007/08 periods. Following a reduction in arrests between 2008/09 and 2010/11, there was an increase in 2011/12 compared to 2010/11 (156 vs. 104). In 2012/13, there was a slight reduction in both consumer and provider arrests relative to 2011/12, with 120 arrests reported in total (79 consumer and 41 provider). The number of methamphetamine-related seizures increased gradually between 1999/00 and 2006/07, decreased or remained stable between 2006/07 and 2009/10, and increased or remained stable since this time. Over the past two years there have been a greater number of seizures (232-256 seizures) relative to the four years prior to this (111-169 seizures).

The number of cannabis-related arrests was relatively stable between 2006/07 and 2010/11, but has decreased over the past two years. In contrast, the number and weight of seizures has remained relatively stable, with a slight increase in both the weight and number of seizures observed in 2012/13 relative to 2011/12.

Illicit drug diversions/cautions. The total number of drug diversions or cautions and the number diverted to health interventions were substantially lower in 2010/11 compared to 2009/10. While this reduction was in part due to policy changes made in relation to offenders under the age of 18 in accordance with the *Youth Justice Act 1997*, there were further reduction in total diversions/cautions in 2011/12 (869 diversions) and 2012/13 (778 diversions) relative to 2010/11 (1,132 diversions). A majority of diversions were in relation to cannabis with less than 10 reported for ecstasy over the past three years.

Drug-related charges in Tasmanian courts. There has been a downward trend in the total number of drug-related offences over the past two reporting periods. This decline is largely due to decreases in the number of offences relating to the possession of illicit drugs (188 individuals in 2010/11 compared to 116 in 2012/13), dealing/trafficking of illicit drugs (114 individuals in 2010/11 compared to 65 in 2012/13), and the cultivation of illicit drugs (107 individuals in 2010/11 compared to 73 in 2012/13).

The number of individuals incarcerated at Hobart Prison in relation to drug was also considerably lower offences in 2012/13 (47 individuals) compared to 2011/12 (81), as was the number of offences among those incarcerated (237 in 2011/12 compared to 111 in 2012/13).

Tasmanian roadside drug testing data. A consistent number of random drug tests have been conducted on Tasmanian roads over the last three reporting periods, with 1,698 tests conducted in 2012/13. Over the last two reporting periods, the proportion of negative tests results have been lower relative to 2010/11, with two-thirds of tests (69%) returning negative results in 2012/13.

Cannabis was the most commonly detected drug, with 57% of all OFT tests and 76% of all blood tests returning positive results. Positive results for amphetamine were also common in both OFT (44%) and blood tests (33%), while methamphetamine was more commonly detected in blood tests relative to OFT (39% vs. 17%). Few OFT or blood tests returned a positive result for the presence of MDMA/ecstasy.

Special topics of interest

Exposure to injecting: Almost three-fifths (58%) of REU reported knowing friends or acquaintances who had ever injected illicit drugs and one-third of REU (32%) had been offered drugs to inject in the last 12 months. One-tenth of REU (9%) had seriously considered injecting a drug. The main reasons that people would consider injecting a drug were out of curiosity and to get a stronger drug effect. The main reasons for not injecting drugs included: not liking this route of administration, social stigma associated with injecting, and fear of needles.

NPS Health Module: The strongest motivating factors associated with mephedrone use were the low availability of alternative drugs and good value for money. Consistent with the illegal status of mephedrone in Hobart and the fact that it is not typically purchased online, legality of mephedrone and its availability on the internet were not strong motivating factors.

At least two-fifths of those who had used mephedrone in the last six months reported signs of drug tolerance. The most common symptoms of tolerance were: taking in larger amounts than intended (44%), continued to use despite physical or psychological problems (41%), feeling that the usual dose did not have the same effect (39%), a persistent urge to take the drug (33%) and spending a great deal of time getting, taking or recovering from use (33%).

Symptoms that REU reported most of the time while under the influence of mephedrone included: the urge to talk (89%), increased energy (89%), clenching jaw or grinding teeth (83%), euphoria (78%), the urge to move (78%), difficulty sleeping (72%), empathy with others (67%), lack of appetite for food (61%) and body sweating (56%). In addition, the urge to talk, urge to move, jaw clenching/teeth grinding, inability to sleep, and lack of appetite were reported to be particularly intense in nature. While three-fifths (61%) had never experienced feelings of panic, these feelings were reported to be particularly intense among those who had experienced them.

In the days following mephedrone use around three-fifths (61%) reported that most of the time they felt tired/fatigued, around one-third (33%) reported feeling anxious and one-quarter reported feeling depressed (28%) and emotional/tearful (28%). These symptoms were reported to be particularly intense among one-third or more of those who had experienced depression (42%) tiredness/fatigue (35%) and anxiety (31%).

Implications

The aim of the EDRS 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 consumers of ERD, and the prevalence of ecstasy and other drug use cannot be inferred. However, the study is designed to identify emerging trends and important issues, and the findings suggest the following key areas for consideration in future policy.

1. Funding of specific health programs to meet the needs of local consumers

There are currently no services that specifically cater to users of ERDs in Hobart, and aside from volunteer organisations at predominantly large-scale events, there is currently very little dissemination of harm-reduction information to these populations. This indicates a clear need for funding and a proactive response in terms of the implementation of harm-reduction strategies. Although approximately one-third of the REU among previous EDRS cohorts were actively seeking harm-reduction information, these messages were not necessarily reaching other consumers.

Considering that drug information is typically sought from peers or peer-run organisations (e.g., harm-reduction-based websites such as www.pillreports.com or www.bluelight.ru), responses to overdose incidents were typically handled by peers, and the fact that REU do not typically come into contact with traditional drug-related services, it is likely that harm-reduction programs will attain maximum impact if delivered through peer-based organisations and mediums appropriate to the target group such as internet sites and outreach workers or information at events. By contrast, illicit-drug education campaigns based around 'fear arousal' have been shown to be ineffective or to even have contradictory effects (Ashton, 1999; Skiba, Monroe & Wodarski, 2004; West & O'Neal, 2004), and these programs, and associated sensationalised reporting of drug use in the media, run the risk of undermining the potential for successfully reducing health harms.

2. Focused interventions to reduce the harm associated with high risk patterns of drug use, polydrug use, binge drinking (including binge drinking in combination with ecstasy) and tobacco use.

Whereas the long-term effects and risks of extended ecstasy use are not completely understood, 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. Among the REU cohort in the present study, one-tenth (13%) had recently used ecstasy weekly or more frequently, one-fifth (22%) had used ecstasy in a binge session (a continuous 48-hour period of drug use without sleep) and over one-tenth (15%) reported using more than two tablets in a typical session of use.

Polydrug use is also an issue of concern in this population. Concomitant use of different drugs may have potentially harmful interactions, thus dissemination of information regarding the negative effects of specific drug combinations may be beneficial. Of particular concern is the high level of coincidental ecstasy and binge alcohol use among REU. A large majority (85%) typically consumed more than five standard drinks when under the influence of ecstasy. There is an increased risk of dehydration when alcohol is combined with ecstasy. Additionally, larger quantities of alcohol can be consumed when under the influence of psychostimulants without experiencing the immediate effects of intoxication; while the associated harms still occur. There is also emerging evidence from animal studies that alcohol may dramatically alter the pharmacology of MDMA in the brain, in particular increasing the concentration of the drug and its metabolite in particular regions (Hamida et al., 2008), which may exacerbate the potential for neurological harms or problems such as dependence, arising from use of the drug.

Hazardous drinking practices are also an issue of general concern in this population. A large majority (76%) of the 2013 REU sample had used alcohol at least weekly during the six months preceding the interview, which is substantially higher than the estimate of prevalence in the general population (44%, among those aged 20-29 nationally – a comparable age group to the current REU cohort). A large majority of REU (85%) scored 8 or more on the Alcohol Use Disorders Identification Test (AUDIT), suggestive of hazardous and harmful alcohol use and the possibility of alcohol dependence. Additionally, the majority of overdose episodes reported by REU in the current and previous EDRS cohorts involved alcohol and/or polydrug use.

Tobacco use is very common among the EDRS cohorts with three-quarters (76%) of the 2013 sample reporting use in the last six months. Almost one-half (45%) reported daily use in the last six months which is higher than the 2010 population estimate for this age group (20-29) both in Tasmania (25.5%) and nationally (18%). Additionally, the incidence of intermittent tobacco use is extremely high. There is a clear need for focused interventions targeting tobacco use among this population. In addition, traditional interventions (e.g., nicotine patches) may not meet the needs of the high proportion of intermittent consumers, and novel tailored interventions may be necessary to target this group.

Similarly, the increasing extent of use of capsules with unknown content is a potentially risky practice. Given the unknown content, it may be difficult for consumers to predict time for onset, and, as has been demonstrated for substances like PMA, harms may ensue if consumers take multiple tablets/capsules in an attempt to compensate for a perceived low potency dose (when in fact the minimal initial effect is a function of an extended duration of onset). In terms of general harm reduction principles when consuming unknown psychostimulants, the general principles suggested by Winstock, Marsden and Mitcheson (2010) should be considered: avoiding regular use to avoid development of tolerance, avoiding co-incident use of multiple psychostimulants or in combination with large doses of alcohol or other depressants, avoiding becoming overheated, not consuming 'stacked' multiple doses, and avoiding psychostimulants in particular if a person has a history of mental health disorder, cardiac or neurological problems.

3. Interventions aimed at increasing awareness of safe sexual practices

One-half (55%) of those who reported sex with a casual partner indicated that they did not use any protective barriers on the last occasion in the previous six months. Use of protective barriers among this population is an issue of concern given the rapidly increasing notifications of sexually transmitted infections in the general population – for example, the rate of notified cases of chlamydia infections have increased to 361.7 per million population in 2011 compared to an average of 273.1 over the previous five years (Australian Institute of Health and Welfare, 2012). Among those interviewed in the present study, two-fifths (45%) reported that they had never had a sexual health check-up.

4. Increased awareness of and access to health, mental health and emergency services in this population

The level of harm experienced by the majority of participants was relatively low. However, there is a subset of this cohort that experienced notable symptoms of dependence, recent mental health problems, and clinically significant levels of psychological distress. Two-fifths (41%) of the 2013 REU sample reported recent experience of mental health problems (most commonly depression and/or anxiety), with just one-half (52%) of these individuals attending a health professional in relation to these problems. This finding suggests under-recognition of mental health problems and a need to improve recognition and access to treatment for mental health problems in this population.

Similarly, despite regular substance use, one-tenth (9%) of the sample had recently accessed health services in relation to drug use. The services most commonly accessed by

REU were a GP, a psychologist, or a drug and alcohol worker. As such, there may be some benefit in increasing awareness among primary health care practitioners in regard to ecstasy and related drugs and associated problems.

While less than one-tenth (8%) of the 2013 REU sample had overdosed on a drug in the preceding six months, the majority of these had not received any formal medical treatment or were monitored/watched by friends. Thus peer education on how to help friends in an emergency, and the situations in which medical treatment may or may not be appropriate, may also be of benefit for this group.

5. Increased awareness of legislation among local consumers with regard to possession, supply, and trafficking of controlled substances.

Although the ERD market is predominantly based on individuals sourcing the drug for other friends while making no cash profit, those that purchase ecstasy in larger quantities may be putting themselves at greater risk of being arrested as a provider rather than a consumer of the drug. Three-fifths (60%) indicated that when they purchased ecstasy they typically purchased the drug both for themselves and others, and a median of three tablets were purchased per occasion. This indicates a need for increased awareness of the risks associated with supplying ecstasy to friends, so that they are able to make informed choices with regard to this.

In addition, consumers are not always aware of the legislation regarding emerging substances such as mephedrone. For example, mephedrone was originally marketed as a 'legal high' until recently legislated against in the United Kingdom and other European countries. While mephedrone is a border-controlled drug in Australia and is illegal in most Australian jurisdictions due to analogue laws or recent legislation changes, consumers may not be aware of the legal status of this and other emerging substances. Some companies have also marketed substances as being free of mephedrone in order to continue their promotion as legal highs; however, in some cases testing has revealed these drugs to contain proscribed substances, placing consumers at unwitting legal risk (Brandt et al., 2010).

6. Continued monitoring and focused interventions to increase the awareness of the effects and risks of the use of mephedrone, cocaine, and other emerging substances

Data from the EDRS has indicated significant changes in ERD markets in Hobart. There was evidence a reduction in the perceived purity and availability of ecstasy in Hobart in recent years coupled with a significant increase in the use of mephedrone capsules. There has also been increased use of ecstasy capsules since 2010, an increase in the use of ecstasy crystals in 2013, and the emergence of an illicit capsule market such that REU are consuming capsules without necessarily knowing what they contain. In addition, notable proportions have reported use of other emerging psychoactive drugs (e.g., 2CI, 2CB, 2CE, 2C-T-7, DMT, methylone, DOI, DMT, and MDPV in recent years). Given the changing illicit drug market both nationally and internationally and the continual development and release of new substances and online markets, it is imperative that the use of NPS are continually monitored and that focused interventions are developed to increase the awareness of the effects and risks of their use among both consumers and health workers in this area.

7. Basic science research in relation to emerging drugs (mephedrone, 2CI, 2CB, 2CE) in order to establish best-practice harm reduction information.

A notable proportion of REU report recent use of mephedrone (4-methylmethcathinone), 'research chemicals' in the tryptamine family (e.g., 2CI, 2CB, 2CE, 2C-T-7, DMT), or other NPS such as methylone, DOI, DMT and MDPV. There exists a paucity of information about the physiological or neuropharmacological effects of these drugs, and virtually no information about how these drugs may interact with other illicit substances, pharmaceuticals or existing medical issues. This poses substantial risk of harm to the

health of consumers. Notably, the rates of use of these substances was greater than drugs such as GHB or ketamine, both of which have received substantially greater media and research attention, and for which harm reduction information is relatively widely available. While the use of such substances may fluctuate due to the changing legal status of these drugs, basic science research in regard to the actions of these drugs in the body and brain, particularly in relation to the most well-established of these drugs, would be a crucial first step for the development of evidence-based harm reduction information that could contribute to maintaining the health of consumers of these drugs.

1.0 INTRODUCTION

The Ecstasy and Related Drugs Reporting System (EDRS, formerly the Party Drugs Initiative or PDI) is a companion project to the Illicit Drug Reporting System (IDRS) which has been conducted in every Australian state and territory annually since 1999. 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. In contrast, the EDRS aims to examine emerging trends in the use, price, purity and availability of ecstasy and related drugs (ERD) in Australia. ERD 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, d-lysergic acid (LSD), ketamine and gamma-hydroxy-butyrate (GHB).

The feasibility of the EDRS was assessed with a two-state trial funded by the National Drug Law Enforcement Research Fund (NDLERF) in 2000 (Breen, Topp, & Longo, 2002) and NDLERF provided additional funding for a two-year project in every Australian state and territory beginning in 2003. The EDRS was funded by the Australian Government Department of Health and Ageing (AGDH&A) and the Ministerial Council on Drug Strategy as a project under the cost-shared funding arrangement in 2005 and by the AGDH&A since 2006.

The current report contains new data collected in Tasmania in 2013 and Tasmanian trends between 2003 and 2012 (Bruno & McLean, 2004b; Matthews & Bruno, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013). National reports including jurisdictional comparisons are available from the National Drug and Alcohol Research Centre (NDARC), University of New South Wales (Black et al., 2008; Breen et al., 2004; Dunn et al., 2007; Sindicich et al., 2009, 2010, 2011, 2012; 2013; Stafford et al., 2005, 2006).²

1.1 Aims

The aims of the Tasmanian EDRS are: to describe the demographic characteristics and patterns of ecstasy and other drug use among a sample of regular ecstasy users (REU) in Hobart and surrounding areas; to examine and identify trends in the price, purity, and availability of ERD in Hobart; to examine the nature and incidence of risk behaviours and health-related harms among the group of participating REU; to investigate other emerging trends in local ERD markets that may warrant further investigation or monitoring; and to identify issues that are pertinent to developing harm-reduction strategies. An overarching aim is to, where possible, incorporate converging data from key experts (KE) and indicator data and to identify emerging trends through comparison with EDRS data collected in Hobart between 2003 and 2012 (Bruno & McLean, 2004b; Matthews & Bruno, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013).

² These reports are available electronically at the NDARC website: <http://ndarc.med.unsw.edu.au/>.

2.0 METHODS

The EDRS uses a convergent validity methodology involving the triangulation of data from three different sources. The three components include a survey of REU in Hobart, interviews with KE who have regular contact with 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 ERD in Tasmania. Focusing on convergent trends among the three data sources allows the 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 REU

2.1.1 Recruitment

Seventy-six REU were interviewed using a structured face-to-face interview between April and July 2013. Interviews were conducted at locations such as cafes, bars, the University of Tasmania, and where appropriate, private residences such as participants' and interviewers' homes. Inclusion criteria for the study included at least monthly use of ecstasy in the last six months, an age of at least 17 years, and having resided in the greater Hobart area for at least 12 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, universities, youth services, hairdressers), internet forums, and through snowball methods (word of mouth and recruitment through friends and associates). In 2013, REU reported hearing about the study through 'snowballing' methods (peer referral) (63%), followed by flyers (21%), internet (11%) and street press (5%). One-quarter (25%) of the 2013 cohort had participated in the EDRS in previous years.

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. Participants were screened by phone to establish their eligibility for the study. Interviewers arranged to meet eligible participants at a mutually acceptable time and place. Prior to commencing the interview, participants gave written informed consent. Participants were informed that the survey 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. Interviews took a median of 70 minutes to complete (range 50-105 minutes) and participants were reimbursed a sum of \$40 for their travel and out of pocket expenses.

2.1.3 Measures

The structured interview focused on the six-month period preceding the interview and assessed information in regard to demographic characteristics; patterns of ecstasy and other drug use including frequency, quantity and route of administration; the price, purity, and availability of different drugs; patterns of purchasing; symptoms of dependence; help seeking; injecting drug use; overdose; driving under the influence; safe sex; problems associated with drug use (e.g., work/study, risk to self/others, social, legal problems); psychological distress; mental health; self-reported criminal activity; and general trends in ERD markets. In addition, the following special interest modules were included in 2013: exposure to injection and new psychoactive substances (NPS) health.

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 and 95% confidence intervals (95%CI) were used to analyse differences between categorical variables. Confidence intervals for the difference between two proportions were determined according to Tandberg³ using an implementation of the optimal methods identified in Newcombe (1998). A categorical variable for age was created using a median split, resulting in a 'younger' group (aged below 24 years, n=38) and an 'older' group (aged 24 years and above, n=38). All statistical analyses were conducted using IBM SPSS Statistics 20.0 for Windows (IBM, 2011).

2.2 Survey of KE

Key experts who had regular contact with ecstasy users in the six months preceding the interview were eligible to participate in the study. Twenty-seven KE participated in semi-structured face-to-face interviews at their place of work, private residences, locations such as coffee shops or bars, or over the phone between July and October 2012. KE included youth/community workers (n=2), law enforcement personnel (n=5), ambulance/emergency workers (n=1), alcohol and drug counsellors/workers (n=10), needle and syringe program (NSP) workers (n=5), bar staff (n=2), venue security (n=1), and DJs (n=1).

The semi-structured KE 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 focused on indicating any recent changes in these areas. Interviews took approximately 60 minutes to complete. Questions were generally open-ended and interviewers wrote verbatim responses at the time of the interview. Interviews were later transcribed in full and recurring themes were identified and tabulated using Microsoft Excel. Information from a single KE may be included in the report where deemed reliable by the interviewer and/or pertinent to the explanation of particular trends. Some closed-ended questions were asked in relation to the price/purity/availability of ecstasy and analysed using IBM SPSS Statistics 20.0 for Windows (IBM, 2011).

2.3 Other indicators

Data from existing sources such as survey, health and law enforcement data were collated to provide contextual information and to complement and validate the data obtained from the survey of both REU and KE. The pilot study for the IDRS (Hando et al., 1998) 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 EDRS), and a paucity of available data, the above recommendations have been used as a guide only. Indicators not meeting the above criteria should be interpreted with due caution and the relevant limitations of each data source are noted in the text.

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

³ Tandberg, D. *Improved confidence intervals for the difference between two proportions and Number Needed to Treat (NNT)*. Available on the University of Oxford Centre for Evidence Based Medicine website: www.cebm.net.

National Drug Strategy Household Surveys (1998, 2001, 2004, 2007, 2010). The National Drug Strategy Household Survey (NDSHS) aims to determine the prevalence of the use of illicit drugs such as cannabis, methamphetamine, hallucinogens, cocaine, and ecstasy/designer drugs among the general community. Tasmanian participants were English-speaking individuals, over the age of 14, who lived in private residences in Tasmania during 1998 (n=1,031), 2001 (n=1,349), 2004 (n=1,208), 2007 (n=1,143) and 2010 (n=1,060) (Australian Institute of Health and Welfare [AIHW], 1999, 2000, 2002a, 2002b, 2005a, 2005b, 2008a, 2008b, 2011). 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 confidential drug and alcohol counselling, information and referral service that has been serviced by Turning Point Alcohol and Drug Centre in Victoria since May 2000. Turning Point systematically records data for each call received. In this report, data is included from the 2003/04 to 2012/13 reporting period for each drug type and from 2000/01 to 2012/13 for ecstasy.

Police and Justice data. Information on drug seizures, charges, price and purity were obtained from Australian Illicit Drug Reports produced by the Australian Bureau of Criminal Intelligence (ABCI) (1999-2002) and Illicit Drug Data Reports provided by the Australian Crime Commission (ACC) (2003-2013). While data on the purity of drugs seized were provided through the ACC; not all drug seizures are analysed for purity. The ABCI and ACC reports do not necessarily report seizure and arrest data separately for drugs such as ecstasy. This is provided by Tasmania Police State Intelligence Services where possible. ACC data for the 2012/13 reporting periods were unavailable at the time of publication but, where possible, preliminary data were provided by Tasmania Police State Intelligence Services. These preliminary data are subject to revision and may differ from ACC data due to differences in counting rules. Tasmania police also provided data in relation to the Illicit Drug Diversion Initiative (IDDI) and roadside drug testing in Tasmania.

Public hospital admission data – AIHW. The AIHW has provided hospital morbidity data for 'principal' and 'additional' diagnoses in relation to drug use from the years 1999/00 to 2010/11 (Roxburgh & Burns, in press). Hospital admission data for the 2011/12 and 2012/13 reporting periods were not available at the time of publication. These data relate to public hospital admissions, for individuals aged between 15 and 54 years. 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 should be noted that data from Tasmania's only public detoxification centre were included only from June 2002 onwards. In this report, hospital admissions are reported separately for amphetamines, cannabis, and cocaine.

The National Minimum Data Set for Alcohol and other Drug Treatment Services (NMDS). The NMDS was developed as a nationally consistent response to data collection for alcohol and other drug treatment services. Data collection began on 1 July 2000 and is available from the AIHW for the financial years between 2000/01 and 2011/12. Data for the 2012/13 financial year were not available at the time of publication.

3.0 DEMOGRAPHICS

Summary:

- The sample of 76 REU interviewed in 2013 were typically in their early twenties (range 18-42 years). Just over one-half (57%) of the sample were male.
- A majority of participants (74%) had completed Year 12, and 41% had completed tertiary qualifications after school (university or trade/technical).
- Two-thirds (67%) were employed (either full-time or part-time/casual) and 17% were currently students.
- Few participants had come into contact with drug treatment agencies (3%).
- These demographic characteristics are generally similar to previous cohorts. However, there were significantly fewer full-time students (4% vs. 35%) compared to 2012.

3.1 Overview of REU sample

Table 1 shows the demographic characteristics of REU interviewed for the EDRS in 2013. Just over half of the sample was male (57%). The mean age of participants was 25 years (range 18-42 years), and there was no significant difference between the median age of males (24 years) and females (22 years) ($p > .05$).

The majority of participants nominated their sexual identity as heterosexual (87%) and spoke English as their main language (99%). A small proportion (5%) of participants were of Aboriginal and/or Torres Strait Island (A&TSI) descent.

Participants typically lived in their own accommodation (owned or rented) (79%), or were living in their parents' or family's home (18%).

Participants had completed 12 years of school education on average (range 7-12 years), and the majority of participants (74%) had completed Year 12. Two-fifths (41%) had completed tertiary qualifications after school, with one-quarter (24%) having completed a university degree and one-fifth having completed a trade/technical qualification (17%).

The majority of participants were either employed on a full-time (49%) or part-time/casual (18%) basis, less than one-fifth were currently students (4% full-time, 13% part-time), and 16% were currently unemployed. Almost one half of the sample (47%) reported an annual income between \$20,800 and \$41,599, with one-quarter (27%) reporting an income less than \$20,800.

Few REU were receiving drug treatment at the time of interview (3%) or had received a previous prison conviction (5%).

The demographic characteristics of the 2013 sample were generally similar to those reported among the cohorts between 2003 and 2012. However, in 2013 there were significantly less full-time students (4% vs. 35%, $\chi^2=22.79$, $p < .001$) when compared to 2012.

KE who commented on the demographic characteristics of the ecstasy consumers with whom they had regular recent contact ($n=6$) indicated that this group was representative of a wide range of people from various educational and employment backgrounds. KE indicated that REU were typically in their early to mid-20s with ages ranging from 18 to 50.

Table 1: Demographic characteristics of REU sample, 2005-2013

	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Mean age (range)	24 (18-44)	25 (18-61)	23 (17-40)	24 (18-47)	24 (18-42)	23 (17-36)	24 (17-39)	24 (18-57)	25 (18-42)
Sex (% male)	55	58	54	60	64	55	65	55	57
Heterosexual (%)	94	91	93	91	98	96	91	81	87
English speaking (%)	100	99	100	99	100	100	100	100	99
A&TSI (%)	2	2	0	1	-	1	0	3	5
Accommodation									
Own/rented (%)	73	80	70	74	77	69	81	74	79
Live with family (%)	27	19	21	26	21	31	13	23	18
Boarding house^ (%)	-	1	9	-	1	-	1	1	1
No fixed address (%)	-	-	-	-	1	-	4	2	-
Mean school years* (range)	12 (10-12)	12 (9-12)	12 (8-12)	12 (10-12)	12 (10-12)	12 (10-12)	12 (8-12)	12 (9-12)	12 (7-12)
Tertiary qualifications									
Trade/technical (%)	25	28	29	26	22	19	11	24	17
University (%)	26	19	23	27	24	41	42	19	24
Employment (%)									
Full-time	41	33	27	36	27	34	32	25	49
Part-time/casual	19	21	19	23	16	21	23	25	18
Full-time student	31	32	33	19	22	27	11	35	4
Student/employed	n/a	n/a	9	16	20	10	16	4	13[#]
Home duties	2	-	-	-	1	-	-	1	-
Not employed	5	14	11	6	14	8	19	9	16
Annual income (%)	n/a	n/a	n/a	n/a					
\$1-7,799					3	6	3	1	1
\$7,800-12,999					11	7	10	13	10
\$13,000-20,799					26	28	25	26	16
\$20,800-31,199					27	20	15	27	22
\$31,200-41,599					11	14	15	11	24
\$41,600-\$51,999					9	12	10	6	14
\$52,000+					12	13	23	16	14
Current drug treatment (%)	2	2	-	1	3	1	4	5	3
Previous prison conviction (%)	3	3	1	3	-	1	n/a	3	5

Source: EDRS interviews

*Question changed from 'How many years of school did you complete?' to 'What grade of school did you complete?' ^ includes hostel/refuge # includes 'part-time students'

4.0 DRUG USE TRENDS

4.1 Drug use history and current drug use

Summary:

- REU reported use of a range of different drugs in the preceding six months. Recent use of alcohol, cannabis, tobacco and methamphetamine powder was most common and at least one-quarter had used LSD, benzodiazepines, or mephedrone.
- Compared to 2012, a significantly ($p<.05$) smaller proportion reported recent use of Amyl nitrate (9% vs. 27%), and nitrous oxide (9% vs. 24%), and a significantly greater proportion reported use of mephedrone (24% vs. 10%).

Ecstasy was the preferred or favourite drug for almost one-third of participants (28%) followed by cannabis (17%), alcohol (16%), or cocaine (15%). Smaller proportions preferred methamphetamine powder (9%), LSD (5%), N,N-dimethyltryptamine (DMT) (3%), heroin (1%), ketamine (1%), mushrooms (1%) or mephedrone (1%).

Table 2 shows proportion of the sample reporting lifetime and recent (in the last six months) use for each of the drugs examined. The majority of REU had used alcohol (100%), cannabis (96%), methamphetamine powder (95%), or tobacco (90%) at some stage of their lives, and substantial proportions had ever used LSD (79%), nitrous oxide (61%), psychedelic mushrooms (71%), cocaine (49%), or benzodiazepines (47%).

During the six months preceding the interview, a majority had used alcohol (100%), cannabis (78%), tobacco (76%) and methamphetamine powder (53%), and at least one-quarter had used LSD (38%), benzodiazepines (34%), or mephedrone (24%).

Compared to 2012, a significantly ($p<.05$) smaller proportion reported recent use of amyl nitrate (9% vs. 27%), and nitrous oxide (9% vs. 24%), and a significantly greater proportion reported use of mephedrone (24% vs. 10%). There were no other significant changes in recent substance use between the 2012 and 2013 samples.

Table 2: Percentage of REU reporting lifetime and recent drug use, 2005-2013

Variable (%)	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Alcohol									
Ever used	100	100	100	100	100	100	100	99	100
Use last 6 mths	98	95	99	100	99	100	100	98	100
Cannabis									
Ever used	100	100	96	97	98	100	100	96	96
Use last 6 mths	89	82	68	74	76	72	67	69	78
Tobacco									
Ever used	89	94	90	96	92	96	97	95	90
Use last 6 mths	83	81	74	86	77	80	83	80	76
Meth. Powder									
Ever used	89	83	74	84	69	74	76	87	95
Use last 6 mths	77	62	65	59	46	40	47	61	53
Meth. base									
Ever used	35	49	43	31	25	19	16	38*	45
Use last 6 mths	23	40	30	16	14	9	8	16	7
Crystal meth.									
Ever used	29	42	23	33	29	20	25	32	38
Use last 6 mths	10	27	7	15	7	4	5	10	17
Pharm stim.#									
Ever used	44	50	40	42	31	22	41	49	45
Use last 6 mths	16	12	19	16	10	9	16	20	20
Cocaine									
Ever used	43	55	54	61	51	75*	75	61	49
Use last 6 mths	20	33	35	35	31	49*	39	26	17
LSD									
Ever used	54	52	40	56	52	46	65*	67	79
Use last 6 mths	31	29	20	41	34	27	43*	30	38
MDA									
Ever used	8	14	8	15	10	14	32*	13*	16
Use last 6 mths	3	3	5	3	8	5	21*	4*	8
Ketamine									
Ever used	24	23	23	26	21	19	32	25	18
Use last 6 mths	11	6	14	6	5	6	8	4	9
GHB/GBL/1,4B									
Ever used	7	9	4	7	11	9	5	10	8
Use last 6 mths	2	3	1	1	3	2	3	2	-
Amyl nitrite									
Ever used	49	41	43	38	67	76	76	53*	42
Use last 6 mths	16	10	20	15	51	51	29*	24	9*
Nitrous oxide									
Ever used	69	69	64	62	54	57	59	80*	61
Use last 6 mths	41	39	46	29	32	32	36	27	9*
Benzodiazepines									
Ever used	40	48	41	51	36	44	61	45*	47
Use last 6 mths	25	33	25	37	24	27	45*	31	34
Antidepressants									
Ever used	21	20	24	22	16	16	23	16	24
Use last 6 mths	12	9	11	6	10	5	8	4	9

Source: EDRS interviews*significant change ($p < .05$) relative to previous year (2010 onwards)

Pharmaceutical stimulants were not included prior to 2004

Table 2: Percentage of REU reporting lifetime and recent drug use, 2005-2013 (continued)

Variable (%)	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Heroin									
Ever used	8	10	5	6	6	8	17	10	16
Use last 6 mths	-	2	-	1	3	2	8	1	5
Methadone									
Ever used	5	9	6	3	8	10	8	9	7
Use last 6 mths	1	5	1	2	4	5	4	4	1
Buprenorphine									
Ever used	2	3	1	2	2	5	8	4	5
Use last 6 mths	1	2	1	1	1	1	3	2	4
Other opioids									
Ever used	25	33	23	29	19	19	29	16	28
Use last 6 mths	13	14	8	17	6	4	16*	4*	11
Mushrooms									
Ever used	63	74	66	61	56	58	64	81*	71
Use last 6 mths	40	55	39	31	21	18	23	26	15
Mephedrone									
Ever used	-	-	-	1	14	64*	37	29	42
Use last 6 mths	-	-	-	1	14	47*	35	10*	24*
Over counter codeine [^]									
Ever used	n/a	n/a	n/a	n/a	17	12	n/a	21	24
Use last 6 mths					9	5	9	16	9
Over counter stimulants [^]									
Ever used	n/a	n/a	n/a	n/a	10	13	20	12	7
Use last 6 mths					6	3	5	4	3
Steroids									
Ever used	n/a	n/a	n/a	n/a	n/a	-	-	1	-
Use last 6 mths						-	-	-	-
Antipsychotics									
Ever used	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9
Use last 6 mths									5

Source: EDRS interviews

* significant change ($p < .05$) relative to previous year (2010-2012)

[^] Over the counter medications were not included prior to 2009

4.2 Ecstasy use

Summary:

- On average participants had been using ecstasy for five years and had first used ecstasy at around 18 years of age (range 13-28 years).
- Ecstasy had typically been used in tablet (95%), capsule (53%), or crystal (48%) form in the last six months, with use of ecstasy powder less common (20%). There was a significant decline in the proportion reporting recent use MDMA capsules in 2012 (53% vs. 75%), with a similar decline seen in the median frequency of capsule use (2 days vs. 6 days). In contrast, an increase was found in the proportion (48%) reporting recent use of MDMA crystals, a trend that was noted only anecdotally in 2012.
- Ecstasy was typically taken orally, but snorting of ecstasy was also common.
- On average, ecstasy had been used on 10 days in the last six months or approximately fortnightly. One-tenth (13%) had recently used ecstasy weekly or more frequently and one-fifth (22%) had used ecstasy in a 'binge session' (a continuous 48 hour period of drug use without sleep).
- A median of two ecstasy tablets were taken in a typical session of use in the last six months and less than one-fifth (15%) reported using more than two tablets in a typical session of use.
- Ecstasy was typically last used at music-related venues including nightclubs and pubs; or in private residences.
- The majority of REU (96%) had used other drugs when last under the influence of ecstasy and almost three-quarters (76%) had used other drugs when last coming down from ecstasy. Alcohol, cannabis, and tobacco were the drugs most commonly used in combination with ecstasy. A large majority (84%) of the sample reported consuming more than five standard drinks when they were under the influence of ecstasy.
- Data from the NDSHS showed a steady increase in the national prevalence of ecstasy use in Australia between 1995 (0.9%) and 2007 (3.5%), with a significant decrease noted in 2010 (3.0%). The estimated prevalence of recent ecstasy use in Tasmania increased from 1.6% in 2004 to 2.4% in 2007, with a non-significant decrease found in 2010 (1.7%).

4.2.1 Ecstasy use among REU

The mean age of first ecstasy use was 18 years (range 13-28 years) compared to 17 years in 2012 and 19-20 years among previous samples. There was no difference in the mean age of first use for males (18 years) and females (18 years). Ecstasy had been used by this group for a median of 5.5 years (range 1-22 years) and all participants had been using ecstasy for at least one year.

Ecstasy had typically been used in tablet (95%) form in the last six months, with approximately one-half (53%) reporting recent use of capsules and one-fifth (20%) reporting recent use of ecstasy powder (Table 3). The proportion reporting recent use of ecstasy capsules was significantly lower in 2013 (53%) relative to the three years previous (75-81%). In addition, almost one-half (48%) reported recent use of MDMA crystals compared to just anecdotal reports in 2012. The majority of REU had mainly ingested ecstasy orally (79%) in the last six months and one-fifth (21%) reported that they had mainly snorted the drug during this time.

Ecstasy (tablets, powder, capsules) had been used by REU on a median of 10 days (range 3-108 days), or on average fortnightly in the six months preceding the interview (Table 3). Around one-tenth reported using ecstasy weekly or more frequently (13%) and around one quarter (22%) had recently 'binged' on ecstasy or had used for more than 48 hours continuously without sleep (see also Section 7.5).

Ecstasy tablets had recently been swallowed (99%) or snorted (75%), while smaller proportions had recently smoked (3%) or injected (1%) (ground-up) tablets. The median frequency of use for ecstasy tablets was eight days (range 1-90) or approximately monthly during the six months preceding the interview. The median number of ecstasy tablets consumed in a typical session of use in the past six months was two tablets (range 0.5-3), and the median number of ecstasy tablets consumed in the heaviest session of use was three tablets (range 0.5-12). Almost one-fifth (15%) reported consuming more than two tablets in a typical session of use.

Ecstasy capsules had been swallowed (88%), snorted (65%), smoked (1%) or injected (1%) in the last six months. The proportion who reported snorting ecstasy capsules was lower in 2013 (65%, 95%CI 50-78) compared to 2012 (80%, 95%CI 70-88), but this difference was not statistically significant, $\chi^2=2.37$, $p=.12$). The median frequency of use was two days (range 1-48) in the last six months, compared to a higher median frequency of use (six days) in 2012.

Ecstasy powder had typically been snorted (80%) or swallowed (53%) on a median of three days (range 1-48) during the previous six months, compared to a median of five days (range 1-48) among the 2012 sample.

MDMA crystals had been swallowed (69%), snorted (53%), smoked (6%) or injected (8%) in the last six months. The median frequency of use was three days (range 1-48) in the last six months.

The most common last locations of ecstasy use (Table 3) were a nightclub (28%), private residences (17% own home, 16% private party, 15% friend's home), or live music event (11%).

The comments of KE were generally consistent with reports of REU. The majority who commented (n=7) noted that ecstasy was taken in pill, powder or capsule form. Several KE (n=4) noted that capsules were the most common form and that often these capsules were unlikely to contain MDMA. Despite increased use of crystal MDMA by REU, none of the KE interviewed in 2013 mentioned crystal MDMA.

Table 3: Patterns of ecstasy use among REU, 2005-2013

	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Mean age first used ecstasy (range)	20 (14- 42)	20 (14- 55)	19 (14- 32)	19 (14- 42)	19 (11- 30)	19 (13- 30)	19 (14- 29)	17 (13- 29)	18 (13- 28)
Use in last 6 mths									
Forms used (%)									
Tablets/pills	100	100	100	100	100	96	95	92	95
Capsules	28	19	47	18	48	81	80	75	53
Powder	18	13	5	6	12	21	26	30	20
MDMA Crystals	-	-	-	-	-	-	-	-	48
Median days use [#]	15	12	12	12	12	11	12	14	10
Use weekly or more often (%) [#]	29	22	23	17	17	10	23	23	13
Recent binge on ecstasy* (%)	37	43	38	33	26	19	14	27	22
Median pills 'typical' session (range)	2 (1-6)	2 (1-6)	2 (1-7)	2 (0.5-6)	2 (1-6)	2 (.5-8)	2 (1-8)	2 (1-4)	2 (.5-3)
Median pills 'biggest' session (range)	4 (1-15)	4 (1-20)	3.5 (1-15)	4 (1-12)	4 (1-15)	3 (1-20)	3 (1-25)	3 (1-13)	3 (.5-12)
Used > 2 pills in typical session (%)	24	37	21	23	11	15	14	17	15
Main route (%)									
Swallowed	96	95	96	93	89	70	71	75	79
Snorted	3	4	3	6	10	30	29	24	21
Injected	1	1	-	-	1	-	-	1	-
Shelved/shafted	-	-	1	1	-	-	-	0	-
Last location (%)									
Home	13	20	10	11	10	9	4	8	17
Dealer's home	-	1	-	-	-	-	1	1	0
Friend's home	13	22	17	20	7	10	8	3	15
Rave/dance party	16	18	11	7	7	3	4	7	3
Nightclub	40	18	37	36	46	41	37	43	28
Pub/Bar	3	-	-	4	7	20	23	9	9
Private party	8	14	19	6	5	11	14	18	16
Outdoors	1	2	-	1	2	-	3	2	3
Live music event	4	2	6	14	14	6	5	7	11
Other	2	1	-	-	1	-	-	1	0

Source: EDRS interviews

* Binged defined as the use of stimulants for more than 48 hours continuously without sleep

Includes pills, powder and capsules

4.2.2 Polydrug use among REU

A large proportion of the 2013 sample (96%) reported use of other drugs when under the influence of ecstasy on the last occasion of use and three-quarters (76%) reported using other drugs when 'coming down' from ecstasy on this occasion (Table 4). The drugs most commonly used when last under the influence of ecstasy were alcohol (91%), tobacco (68%), cannabis (37%), and energy drinks (22%). Notably, a large majority of the sample (84%) reported drinking more than five standard drinks the last time that they were under the influence of ecstasy. Several KE (n=2) mentioned that energy drinks were often consumed in combination with ecstasy.

The drugs most commonly used when coming down from ecstasy on the last occasion were cannabis (47%), alcohol (40%), tobacco (38%), and benzodiazepines (11%). A significantly greater proportion of the 2012 (29%) and 2013 (37%) samples reported drinking more than five drinks when coming down from ecstasy on the last occasion of use relative to 2010-2011 (4-7%).

Table 4: Drugs used when under the influence of ecstasy and when coming down on last occasion in the last six months, 2010-2013

	Under the influence of ecstasy				Coming down from ecstasy			
	2010 n=100	2011 n=71	2012 n=100	2013 n=76	2010 n=100	2011 n=72	2012 n=100	2013 n=76
None (%)	1	1	11	4	55	49	37	24
Meth. powder (%)	6	9	1	1	-	1	-	-
Meth. base (%)	1	-	-	1	-	-	-	1
Crystal meth. (%)	-	-	1	1	-	-	-	-
Pharm. stimulants (%)	1	-	-	5	-	-	-	-
Cocaine (%)	4	3	3	3	-	-	2	-
LSD (%)	3	9	6	4	-	-	-	-
Ketamine (%)	-	-	-	1	-	-	-	-
GHB (%)	-	-	-	-	-	-	-	-
Amyl nitrite (%)	3	1	1	3	2	-	-	-
Nitrous oxide (%)	3	1	2	1	2	-	-	-
Cannabis (%)	29	32	24	37	29	36	44	47
Alcohol								
Usually drink (%)	94	97	85	91	16	8	35	40
> 5 std drinks (%)	83	92	85	84	4	7	29	37
Methadone (%)	-	1	-	-	-	-	-	-
Other opioids (%)	-	-	-	-	1	-	-	-
Tobacco (%)	48	61	54	68	13	15	26	38
Antidepressants (%)	-	-	-	-	-	-	-	-
Benzodiazepines (%)	2	4	2	5	14	13	10	11
Mushrooms (%)	-	-	3	3	-	-	-	-
Mephedrone/methylone (%)	10	3	1	-	-	1	-	-
Energy drinks	26	24	30	22	-	-	2	-
OTC codeine	-	-	-	-	-	-	3	3
Other (%)	-	4	4	3	-	4	4	4

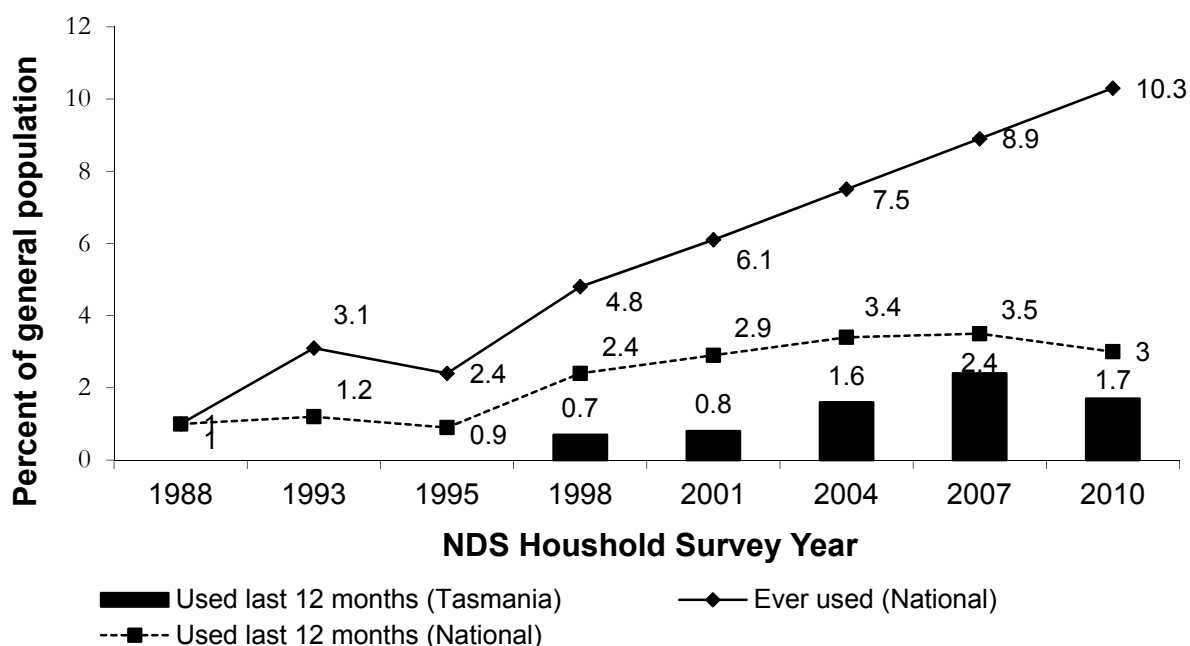
Source: EDRS interviews

4.2.3 Ecstasy use in the general population

Figure 1 shows the prevalence of lifetime and recent ecstasy use in the general population and in Tasmania based on data collected by the NDSHS between 1988 and 2010 (AIHW, 1999, 2000, 2002a, 2002b, 2005a, 2005b, 2008a, 2008b, 2010).

The lifetime prevalence of ecstasy use among the general population increased from 1% in 1988 to 10.3% in 2010. The proportion of the national sample reporting past yearly use increased from 1% in 1988 to 3.5% in 2007. A significant decrease was found in 2010 with 3.0% of the general population reporting past yearly use. The estimated prevalence of recent ecstasy use in Tasmania increased from 1.6% (95%CI 1.3-1.8%) in 2004 to 2.4% (95%CI 1.6-3.4%) in 2007. In 2010, the estimated prevalence of recent ecstasy use in Tasmania was lower at 1.7% (95%CI 1.1-2.7%) but this was not statistically different to 2004.

Figure 1: Prevalence of ecstasy use in Australia and Tasmania among those aged 14 years and over, 1988-2010



Source: National Drug Strategy Household Survey 1988-2010

4.3 Methamphetamine use

Summary:

- Three-fifths (57%) of the 2013 REU sample had used some form of methamphetamine in the preceding six months which is not statistically different to 2012 (64%).
- Methamphetamine was used on a median of three days during this period (once every two months on average) in relatively small amounts (two points or 0.2g).
- Recent use of methamphetamine powder was most common (61%), with lower levels of use for crystal methamphetamine (17%) and methamphetamine base (7%). There was an upward trend in the proportion reporting recent use of crystal methamphetamine from 5% in 2011 to 17% in 2013.
- Methamphetamine powder was typically snorted or swallowed, base was typically swallowed, and crystal was typically smoked.

Throughout the 1980s, the form of illicit amphetamine most available in Australia was amphetamine sulphate (Chesher, 1993). Following the legislative controls on the distribution of the main precursor chemicals in the early 1990s (Wardlaw, 1993), illicit manufacturers were forced to rely on different production methods and the proportion of amphetamine-type seizures that were methamphetamine⁴ (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.

There is a diversity of forms of methamphetamine sold in the Australian illicit market. While there is some disagreement among both consumers and researchers as to the nature of these forms, it is clear that these are marketed differently to injecting drug users (IDU) and REU, and often sold on differing price scales. As such, the term 'methamphetamine' will be used to refer to the drugs in this class but trends will be discussed separately for three different methamphetamine forms. With the exception of methamphetamine-based tablets marketed as 'ecstasy', and pharmaceutical stimulants such as dexamphetamine and methylphenidate, 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 essentially the same substance.

Powder methamphetamine⁵ is the presentation of the drug which has traditionally been available in Australia. This powder can range from fine to more crystalline or coarse, and may take different colours (commonly white, yellow, brown, orange or pink), depending on the type and quality of the chemical process used in its production. It is typically 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. Consumers interviewed for the 2012 IDRS survey reported that methamphetamine powder was either a dry powder or slightly wet, and sometimes contained small crystals. Colour varied, but was generally described as appearing white to off-white or alternatively yellow or beige/brown (de Graaff & Bruno, 2013). The presence of crystals in powder methamphetamine may represent higher purity methamphetamine, or alternatively it may be explained by the use of an adulterant such as methylsulfonylmethane (MSM) in the late stages of production. The introduction of MSM

⁴ Methamphetamine is an abbreviation of the name methylamphetamine, and, as such, both terms are interchangeable.

⁵ Powder form methamphetamine is also referred to in national and other jurisdiction IDRS and EDRS reports as 'speed'.

forms crystals, giving the powder methamphetamine a crystalline appearance (Fetherston & Lenton, 2006).

The two other 'forms' of methamphetamine are traditionally higher in potency (at least partially due to being more difficult to 'cut') and have increased in availability across all Australian jurisdictions in the past decade (Topp & Churchill, 2002). The first, referred to in some jurisdictions as 'base' or 'paste', is commonly a gluggy, waxy, oily, 'wet' powder 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 usable 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 2012 IDRS study, participants who had recently purchased this form locally commonly described it as wet, damp or sticky, and reported the colour as ranging from yellow/orange, to white, beige or brown, and described it as looking like 'ear wax' (de Graaff & Bruno, 2013).

The final form of methamphetamine is often referred to as 'ice' or 'crystal meth(amphetamine)'. This is the product of a careful production process, and is believed to be chiefly imported into Australia from Asian countries (Topp & Churchill, 2002), although there are also indications of local production in recent years (ACC, 2007). It commonly appears as clear, ice-like crystals, and, as such, is difficult to 'cut' (dilute), resulting in a relatively high-purity/potency product. However, as previously noted, MSM may be used to give lower purity powder methamphetamine the appearance of higher purity crystal methamphetamine (although it should be noted that there is currently no forensic validation that this has been present in drugs used in Tasmania). Consumers in previous IDRS studies have generally described this form as white/clear crystals or rocks, looking like crushed glass or rock salt (with crystals commonly larger than sugar crystals) (de Graaff & Bruno, 2013).

4.3.1 Methamphetamine use among REU

The majority (96%) of the 2013 sample reported lifetime use of methamphetamine and almost three-fifths (57%, 95%CI 45-67%) had used methamphetamine during the six months preceding the interview which is not significantly different to the proportion in 2012 (64%, 95%CI 54-72%). A significantly greater proportion of 'older' (68%) relative to 'younger' (45%) participants (based on a median split for age) had used methamphetamine in the last six months, $\chi^2=4.34$, $p=.037$. There was a trend for a greater proportion of males (65%) relative to females (44%) to report recent use of methamphetamine, $\chi^2=3.39$, $p=.065$. The median frequency of use of any form of methamphetamine over the last six months was three days (range 1-95 days).

Table 5: Patterns of methamphetamine (any form) use among REU, 2004-2013

	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	90	94	81	85	72	78	84	89	96
Used last 6 mths (%)	78	78	70	63	52	48	52	64	57
Median days use last 6 mths (range)	6 (1-140)	6 (1-166)	4 (1-130)	3 (1-41)	3 (1-72)	2 (1-26)	3 (1-48)	3 (1-55)	3 (1-95)

Source: EDRS interviews

Methamphetamine powder (speed)

A majority (95%) of the 2013 sample reported lifetime use of methamphetamine powder (Table 6). The median age of first use was 19 years (range 12-28 years), and there was no significant difference between the age of first use for males (19 years) and females (19 years).

Around one-half (53%) had used methamphetamine powder during the six months preceding the interview, which is a similar proportion to recent years. There was no significant difference between the proportion of males (58%) and females (44%), or the proportion of 'older' (61%) and 'younger' (45%) participants (based on a median split for age) reporting recent use of methamphetamine powder.

Among KE who commented on the forms of methamphetamine currently available in Hobart, several noted recent increases in the use (n=3) and availability (n=5) of methamphetamine powder.

The majority of those who had recently used methamphetamine powder had snorted (82%) or swallowed (51%) the drug during the six months preceding the interview, and smaller proportions reported injecting (20%) or smoking (18%) the drug.

The median frequency of use during the six months preceding the interview was two days (range 1-90 days), or on average, once every three months (Table 6). Four-fifths (83%) of those who had recently used methamphetamine powder had done so once monthly or less.

The usual amount used was two points (0.2 of a gram) in both a typical session (n=14) and the biggest session (n=14) of use in the last six months. Other participants (n=21) reported using a median of 0.5 grams (range 0.25-1 grams) in a typical session and 0.5 grams (range 0.25-2 grams) in the biggest session of use.

Table 6: Patterns of methamphetamine powder (speed) use among REU, 2005-2013

Meth. powder	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	89	83	74	84	69	74	76	87	95
Median age of first use (range)	20 13-44	20 15-60	20 13-32	20 15-44	20 14-30	20 15-28	20.5 14-30	18 13-24	19 12-28
Used in last 6 months (%)	77	62	65	59	46	40	47	61	53
Median days use (range) [#]	4 1-90	3 1-48	4 1-115	3 1-24	2 1-48	2 1-12	3 1-48	3 1-40	2 1-90
Route (%) [#]									
Smoked	8	8	8	9	2	3	15	5	18
Snorted	56	63	49	58	78	65	60	77	82
Swallowed	86	89	85	78	59	73	69	64	51
Injected	6	8	9	10	17	5	18	7	20
Shaft/shelved	-	2	2	-	-	-	-	-	-
Median points [#]									
Typical session (range)	1 .2-5	1 .25-5	1 .25-5	1 .5-4	2 .25-4	2 .25-4	2 .5-5	2 1-3	2 .5-6
Biggest session (range)	1.5 .2-5	2 .13-6	2 .25-5	2 .5-6	2 0.5-6	2 .25-8	2 .5-6	2 1-6	2 .5-6

Source: EDRS interviews

[#]among those who had used in last six months

Methamphetamine base

Two-fifths of the 2013 sample (45%) had used methamphetamine base at some stage of their lives (Table 7). The median age of first use of methamphetamine base was 20 years (range 15-32 years).

Almost one-tenth (7%) of the 2013 sample (all male participants) had used base during the six months preceding the interview, which is lower compared to 2012 (16%), but not significantly different ($p=.09$).

The majority of those who had recently used methamphetamine base had swallowed (80%), injected (40%) or shelved/shafted (20%) the drug. The median frequency of use was one day (range 1-48 days). The median quantity of methamphetamine base used in the preceding six months was two points (0.2 of a gram) in both a typical session and biggest session of use.

Table 7: Patterns of methamphetamine base use among REU, 2005-2013

Meth. base	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	35	49	43	31	25	19	16	38	45
Median age of first use (range)	20 17-29	21 15-32	20 13-37	20 17-28	21 16-31	20 15-36	20 16-23	19 13-35	20 15-32
Used in last 6 months (%)	23	40	30	16	14	9	8	16	7
Median days use (range) [#]	4 1-70	4 1-150	2 1-70	2 1-35	3 1-14	2 1-24	3 1-4	2 1-20	1* 1-48
Route (%) [#]									
Smoked	-	3	3	-	14	33	-	19	-
Snorted	39	15	13	25	14	33	-	6	-
Swallowed	91	88	90	88	79	78	50	100	80*
Injected	22	20	7	19	50	11	50	13	40*
Shaft/shelved)	4	-	-	-	-	-	-	-	20*
Median points [#]									
Typical session (range)	1 .25-5	2 .5-3	2 .5-3	2 .5-4	1 .25-5	1.5 .25-3	2 2-2	2 .5-3	2* 2-2
Biggest session (range)	1 .25-10	2 .5-10	2 .5-6	2 .5-5	2 .5-5	2 .25-3	4 2-4	2 1-4	2* 2-2

Source: EDRS interviews

* n<10

[#]among those who had used in last six months

Crystal methamphetamine

Almost two-fifths (38%) of the REU interviewed in 2013 reported lifetime use of crystal methamphetamine (Table 8) and 17% (95%CI 10-27%) reported use during the six months preceding the interview. The proportion reporting recent use was slightly higher than the proportion in 2012 (10% 95%CI 6-17%), but significantly higher than the proportion in 2011 (5% 95%CI 2-13%).

Among KE who commented on the forms of methamphetamine currently available in Hobart, several noted recent increases in the use (n=4) and availability (n=7) of crystal methamphetamine.

Those who had recently used crystal methamphetamine were all male and had typically smoked the drug (77%) on a median of three days (range 1-72) during the preceding six months, with a median of two points (0.2 of a gram) used in a typical session of use.

Table 8: Patterns of crystal methamphetamine use among REU, 2005-2013

Crystal meth.	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	29	42	23	33	29	20	25	32	38
Median age of first use (range)	23 15-29	23 15-34	23 16-31	20 16-30	21 13-35	23 18-36	19 14-30	20 15-36	22 16-36
Used in last 6 months (%)	10	27	7	15	7	4	5	10	17
Median days use (range)	3.5 1-30	5 1-50	1 1-20	2 1-6	6 1-55	1.5 1-3	2 1-5	1.5 1-12	3 1-72
Route (%)									
Smoked	20	78	43	53	29	100	50	70	77
Snorted	20	15	14	40	29	-	25	10	8
Swallowed	40	48	71	33	14	-	25	40	8
Injected	50	22	14	13	43	-	-	20	8
Shaft/shelved	-	-	-	-	-	-	-	-	-
Median points									
Typical session (range)	1 .5-3	1 .5-4	2 .5-3	1 1-4	1.5 .2-4	5 n=1	2.5 5-15	1 1-3	2 .25-3
Biggest session (range)	1 .5-10	2 .5-10	2 1-3	1 1-3	3 .2-8	5 n=1	2.5 5-15	1.75 1-5	1 .25-5

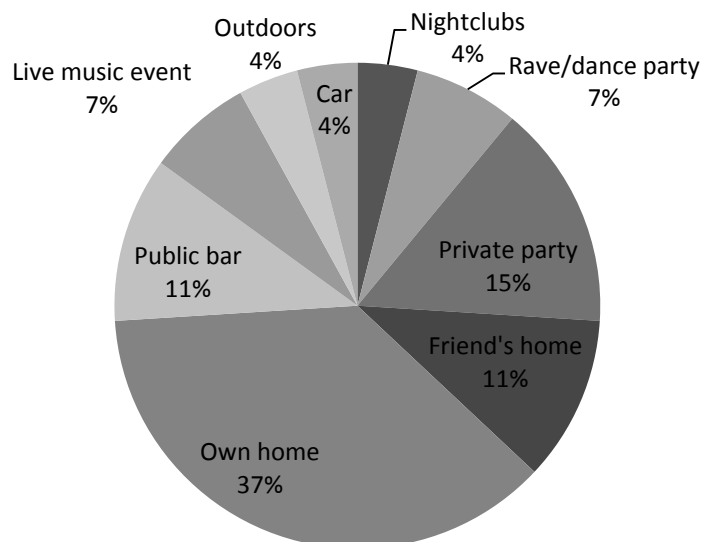
Source: EDRS interviews

#among those who had used in last six months

Location of last methamphetamine use

Figure 2 shows the last location of last use for methamphetamine powder among those who had used it during the six months preceding the interview. Data refers to locations where participants spent most of their time while under the influence of the drug (rather than the place of ingestion). The most common locations of last use included private residences and public bars. Data for crystal and base methamphetamine are not reported caution due to small sample sizes.

Figure 2: Location of most recent methamphetamine powder use (n=27) 2013

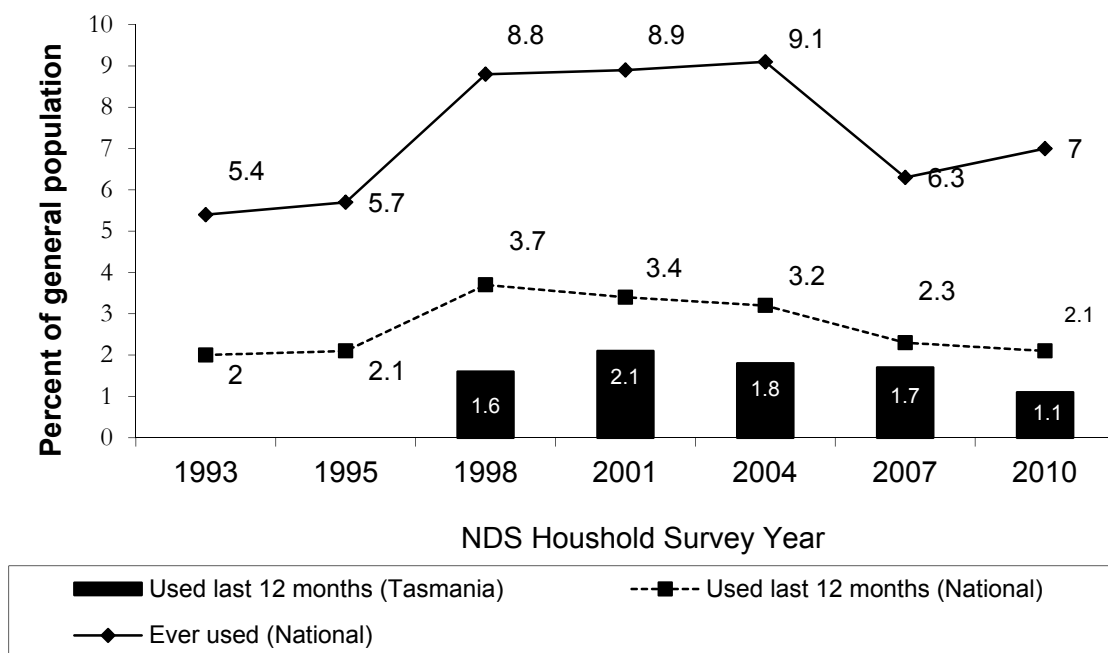


Source: EDRS interviews

4.3.2 Methamphetamine in the general population

According to the findings of the 2007 NSDHS (AIHW, 2008), the lifetime and recent use of meth/amphetamine (6.3% and 2.3% respectively) had declined significantly in the general population relative to the 2004 (9.1% and 3.2% respectively) sample (Figure 3). In 2010, 2.1% of the general population reported past yearly use which is not significantly different to 2007. Among Tasmanian residents surveyed in 2010, 1.1% reported using meth/amphetamine in the last year. This is comparable to 2007 but should be interpreted with caution due to the high relative standard error of the estimate (Figure 3).

Figure 3: Prevalence of meth/amphetamine use in Australia and Tasmania among those aged 14 years and over, 1993-2010



Source: NDSHS, 1993-2010

4.4 Cocaine use

Summary:

- Less than one-fifth (17%) of the 2013 sample had used cocaine during the six months preceding the interview, representing a significant decline relative to 2011 (39%) and 2010 (49%). This downward trend in recent use is in contrast to the upward trend observed in the years prior to this.
- Recent cocaine use was significantly more common among older (32%) relative to younger (3%) participants (based on a median split for age).
- Cocaine was most typically snorted and was used on a median frequency of three days (range 1-6 days) in the last six months. An average of one gram was used in a typical session.

4.4.1 Cocaine use among REU

Half of the 2013 REU sample (49%) had ever used cocaine (see Table 9). The median age of first use of cocaine was 20 years (range 15-29 years).

Almost one-fifth (17%, 95%CI 10-27%) of the 2013 sample had used cocaine during the six months preceding the interview (see Table 9), which was not significantly different to the proportion in 2012 (26%, 95%CI 18-35%) but significantly fewer relative to 2011 (39% 95%CI 28-50) and 2010 (49%, 95%CI 39-59%). There was no significant difference in the proportion of males (21%) and females (13%) who had recently used cocaine; however, a significantly greater proportion of older (32%) relative to younger (3%) participants reported recent use, $\chi^2=11.23$, $p=.001$.

The median frequency of cocaine use was three days (range 1-6 days) in the preceding six months compared to two days in 2012. Two-fifths (46%) of those who had recently used cocaine had done so on only one occasion in the preceding six months, compared to 31% in 2012.

Those that had recently used cocaine reported using a median of one gram (range 0.5-2 grams) or a median of 1.5 'points' (range 1-2 points) in a typical session, and one gram (range 1-2 grams) or 1.5 'points' (range 1-2 points) in the biggest session of use in the last six months.

Those who had used cocaine in the preceding six months had either snorted (92%) or swallowed (8%) the drug.

The most common locations for last use of cocaine (Table 9) were at a live music event (22%), private party (22%), or friend's home (22%), followed by a nightclub (11%).

Several KE (n=10) indicated that there was 'none' or 'low' use of cocaine use among the drug consumers that they were familiar with.

Table 9: Patterns of cocaine use among REU, 2005-2013

Cocaine	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	43	55	54	61	51	75	75	61	49
Median age first used (range)	20 15-30	22 17-30	22 17-31	21 18-46	22 16-31	21 13-30	22 15-36	20 15-30	20 15-29
Used in last 6 months (%)	20	33	35	35	31	49	39	26	17
Median days use (range)	1 1-5	2 1-6	2 1-72	2 1-10	2 1-24	3 1-20	1 1-30	2 1-20	3 1-6
Route (%) [#]									
Smoked	15	-	3	-	3	2	-	-	-
Snorted	90	94	74	94	94	100	100	96	92
Swallowed	10	39	51	31	55	40	24	54	8
Injected	-	6	-	-	3	-	-	-	-
Shafted/shelved	-	-	-	-	-	-	-	-	-
Median amounts used per session [#]									
Grams typical (range)	0.5 [*]	0.5	0.5	0.5	0.25	0.5	0.5	0.5	1* 0.5-2
Grams biggest (range)	0.5 [*]	1	0.5	0.5	0.25	1	0.5	0.5	1* 1-2
Points typical (range)	2	2	2	2 [*]	2 [*]	2	1.75 [*]	1.5 [*]	1.5* 1-2
Points biggest (range)	2	2	2	2 [*]	2 [*]	2	2 [*]	3 [*]	1.5* 1-2
Last location (%) [#]	n=11	n=21	n=19	n=28	n=11	n=23	n=17	n=10	n=9
Home	18	19	16	7	18	-	12	10	-
Dealer's home	-	5	-	4	-	-	-	-	-
Friend's home	9	33	32	21	9	26	18	10	22
Rave/dance party	9	-	5	4	9	4	-	-	-
Nightclub	18	19	11	25	36	17	29	30	11
Public bar	18	-	-	7	9	26	24	40	-
Private party	-	14	16	29	-	17	6	-	22
Outdoors	-	5	-	-	-	-	-	-	-
Live music event	-	-	11	-	18	4	12	10	22
Public place	9	-	11	4	-	-	-	-	-
Work	9	-	-	-	-	-	-	-	-
Other	9	5	-	-	-	-	-	-	22

Source: EDRS interviews

* n<10

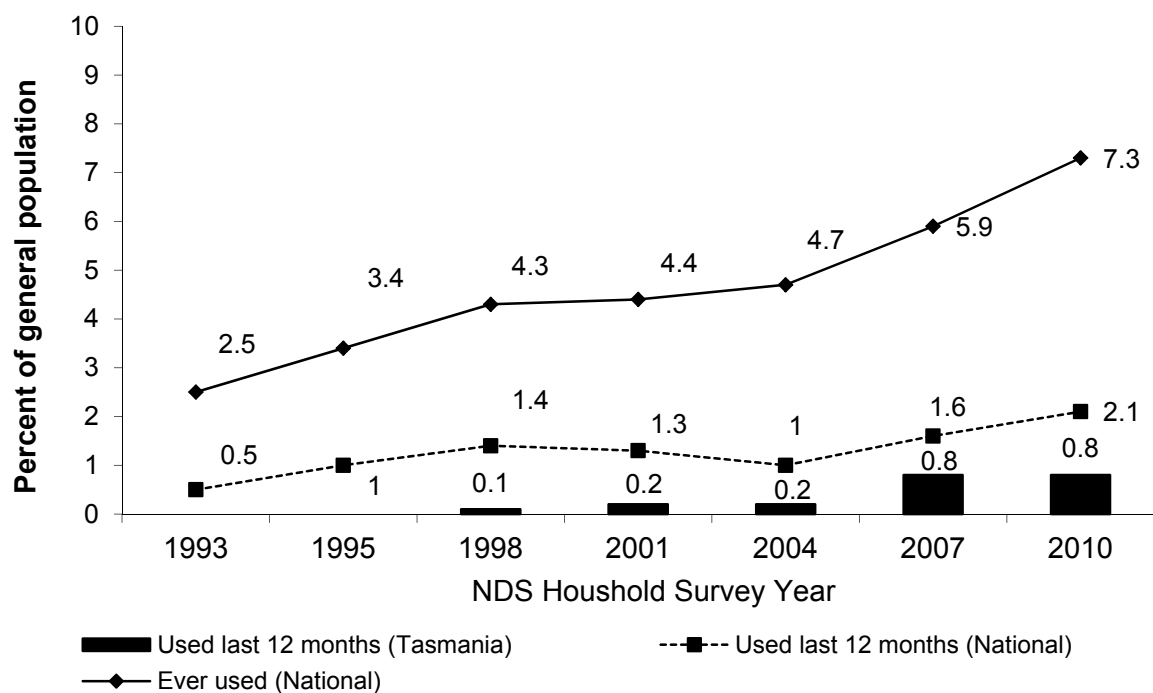
among those who had used in last six months

4.4.2 Cocaine use in the general population

According to the findings of the NDSHS (Figure 4), the lifetime and past yearly use of cocaine increased significantly between 2004 and 2007 and between 2007 and 2010. In 2010, 7.3% of the general population reported lifetime use and 2.1% of the population reported use in the past year.

Among residents surveyed in Tasmania in 2007, 0.8% (95%CI 0.6-0.9%) reported using cocaine in the preceding year, which was significantly greater than the proportion of the 2004 Tasmanian sample (0.2%, 95%CI 0.1-0.3%), but significantly lower relative to the national sample in 2007 (1.6%, 95%CI 1.55-1.64%). In 2010, 0.8% of surveyed Tasmanians reported past year use of cocaine; however, this estimate should be interpreted with caution due to a high relative standard error.

Figure 4: Prevalence of cocaine use in Australia and Tasmania among those aged 14 years and over, 1993-2010



Source: NDSHS, 1993-2010

4.5 LSD use

Summary:

- Almost four-fifths (79%) of the 2013 sample had used LSD at some stage of their lives and almost two-fifths (38%) had used LSD in the six months preceding the interview which is not significantly different to the proportion in 2012 (38%).
- LSD had been used on a median of two days (range 1-12 days) in the preceding six months with one tab or drop of liquid LSD (range 0.25-5) taken orally in a typical session of use.

4.5.1 LSD use among REU

Table 10 shows that almost four-fifths (79%) of the 2013 REU sample had used LSD at some stage of their lives. The median age of first use was 19 years (range 12-30 years) which is higher than 2012 (17 years) but similar to the years prior to this, and there was no significant difference between the mean age of first use for males (19 years) and females (19 years).

Almost two-fifths (38%, 95%CI 28-49%) of the 2013 sample reported use of LSD during the six months preceding the interview (Table 10), which is not significantly different to the proportion in 2012 (38%, 95%CI 22-40). There was no significant difference in the proportion of males (44%) and females (31%) or the proportion of 'younger' (45%) and 'older' (32%) participants reporting recent use.

All (100%) of those who had recently used LSD had taken the drug orally.

The median frequency of use for those who had recently used LSD was two days (range 1-12 days), which is lower than 2012 and 2011 (3-3.5 days) but similar to the years prior to this. There was no significant difference in the median frequency of use for males (two days) and females (1.5 days).

The median number of tabs/drops of LSD used in a typical session was one (range 0.25-5) which is lower than the median of two reported in 2012. The number of tabs/drops used in the biggest session of use was one (range 0.25-5).

REU were asked which locations they had last used LSD (when they were under the influence of the drug, not necessarily the location of ingestion) during the six months preceding the interview (Table 10). LSD was last used at a rave/doof/dance party (23%), live music event (15%), or private residences such as the consumer's own home (23%), or a friend's home (12%).

Table 10: Patterns of LSD use among REU, 2005-2013

LSD	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	54	52	40	56	52	46	65	67	79
Median age of first use (range)	18 15-31	19 14-35	19 13-32	20 16-47	20 14-30	19 15-27	19 15-37	17 14-25	19 12-30
Used in last 6 months (%)	31	29	20	41	34	27	43	30	38
Of those used last 6 months									
Median days use [#] (range)	1 1-15	2 1-15	2 1-25	2 1-15	2 1-15	2.5 1-24	3.5 1-48	3 1-30	2 1-12
Route (%) [#]									
Smoked	-	3	-	-	-	-	-	3	-
Snorted	-	3	-	-	-	-	6	7	-
Swallowed	100	100	100	100	100	100	94	97	100
Injected	-	-	-	-	3	-	3	-	-
Median tabs/drops [#]									
Typical session (range)	1	1	1	1	1	1	1 .25-5	2 0.5-4	1 .25-5
Biggest session (range)	1	2	2	2	2	1	1 .25-16	2 1.5-6	1 .25-5
Last Location (%) [#]	n=30	n=26	n=15	n=40	n=31	n=23	n=27	n=26	n=26
Home	13	23	27	28	23	13	22	8	23
Dealer's home	-	-	-	-	-	-	-	-	-
Friend's home	40	15	-	20	26	30	19	23	12
Dance party*	10	31	27	20	7	22	7	39	23
Nightclub	13	4	13	3	7	9	7	4	4
Pub	-	-	-	-	-	9	7	-	12
Restaurant/café	-	-	-	-	-	-	-	-	-
Private party	-	12	13	3	10	4	4	12	4
Outdoors	10	12	20	18	23	17	4	8	4
Live music event	7	-	-	8	7	4	15	4	15
Public place	3	4	-	3	-	-	7	4	-
Other	-	-	-	-	-	-	4	-	4

Source: EDRS interviews

* includes raves and doofs

[#]among those who had used in last six months

4.5.2 LSD use in the general population

In the 2010 NDSHS (AIHW, 2011), it was estimated that approximately 1% of Tasmanians had used hallucinogens in the year prior to interview, compared to a similar proportion in 2007 (1%). However, these estimates should be interpreted with caution due to high relative standard errors. Nationally, there was a significant increase in the past yearly use of hallucinogens in 2010, with 1.4% of Australians reporting recent use compared to 0.6% in 2007.

4.6 Cannabis use

Summary:

- Over three-quarters (78%) of the 2013 sample had used cannabis during the six months preceding the interview
- Cannabis had typically been smoked (100%), with around two-fifths (41%) ingesting the drug in the preceding six months.
- The median frequency of cannabis use was 48 days (range 1-180) or approximately two days per week, compared to a higher median frequency in 2012 (120 days) and lower median frequencies in previous years (11-25 days). Daily cannabis smoking was also greater among the 2013 (22%) and 2012 (32%) samples relative to previous years (5-17%).
- The median quantities used on the last day of use during this time were seven cones (range 1-20) or one joint (range 0.25-7).
- While cannabis use was found to decrease in the general population nationally between 2004 (11.3%) and 2007 (9.1%), there was a significant increase in use between 2007 and 2010 (10.3%). In contrast the recent use in Tasmania continued to decrease between 2007 (10.8%) and 2010 (8.6%).

4.6.1 Cannabis use among REU

Almost the entire REU sample (96%) surveyed in 2013 had used cannabis at some stage of their lives (Table 11). The median age of first cannabis use was 16 years (range 12-25 years), and there was no significant difference in the mean age of first use for males (16 years) and females (15 years).

Almost four-fifths (78%, 95%CI 67-86%) of respondents had used cannabis during the six months preceding the interview, which is similar to the proportion of the sample in 2012 (69% 95%CI 59-77). There was no significant difference in the proportion of males (79%) and females (83%) reporting recent use of cannabis; or in the proportion of younger (80%) relative to older (82%) participants (based on a median split for age).

A majority of those reporting recent use had smoked cannabis (100%) and around two-fifths (41%) had ingested cannabis during the six months preceding the interview.

The median frequency of cannabis use during this six month period was 48 days (range 1-180 days), or approximately two times a week, which is less than the median frequency in 2012 (120 days) but greater than the years prior to this (11-25 days). Around one-fifth (22% 95%CI 15-33) of the sample reported daily use of cannabis during the last six months, which is similar to 2012 (32% 95%CI 24-42) but greater than the years prior to this (2005-2011) (5-17%).

Those who had recently used cannabis were asked how many cones (smoked through a water pipe or bong) or joints (rolled into a cigarette) they had smoked on the last day that they had smoked the drug (Table 11). The median number of cones (n=27) smoked on the last day of use was seven (range 1-20) and the median number of joints (n=29) was one (range 0.25-7). It has been estimated that the quantity of a standard cone is 0.0825 g or one-third of a standard cannabis unit which is defined as one-quarter of a gram (Ritter, Lancaster, Grech & Reuter, 2011).

Table 11: Patterns of cannabis use of REU, 2005-2013

Cannabis	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	100	100	96	97	98	100	100	96	96
Median age first used (range)	15 10-21	15 8-27	15 12-22	15 11-24	15 11-23	15 10-22	15 12-21	15 8-23	16 12-25
Used last 6 months (%)	89	82	68	74	76	72	67	69	78
Used daily (%) [#]	17	13	5	8	6	5	8	32	22
Median days used (range) [#]	24 1-180	25 1-180	11 1-180	15 1-180	15 1-180	12 1-180	24 1-180	120 1-180	48 1-180
Median cones last session (range) [#]	n/a	n/a	4 1-40 n=39	3 .25-50 n=37	4 .5-30 n=38	4 .5-20 n=23	5 1-24 n=17	8 1-30 n=41	7 1-20 n=27
Median joints last session (range) [#]	n/a	n/a	1 .5-4 n=23	1 .5-3 n=31	1 .5-6 n=36	1 .25-9 n=43	1 .3-5 n=31	1 .2-6 n=28	1 .25-7 n=29

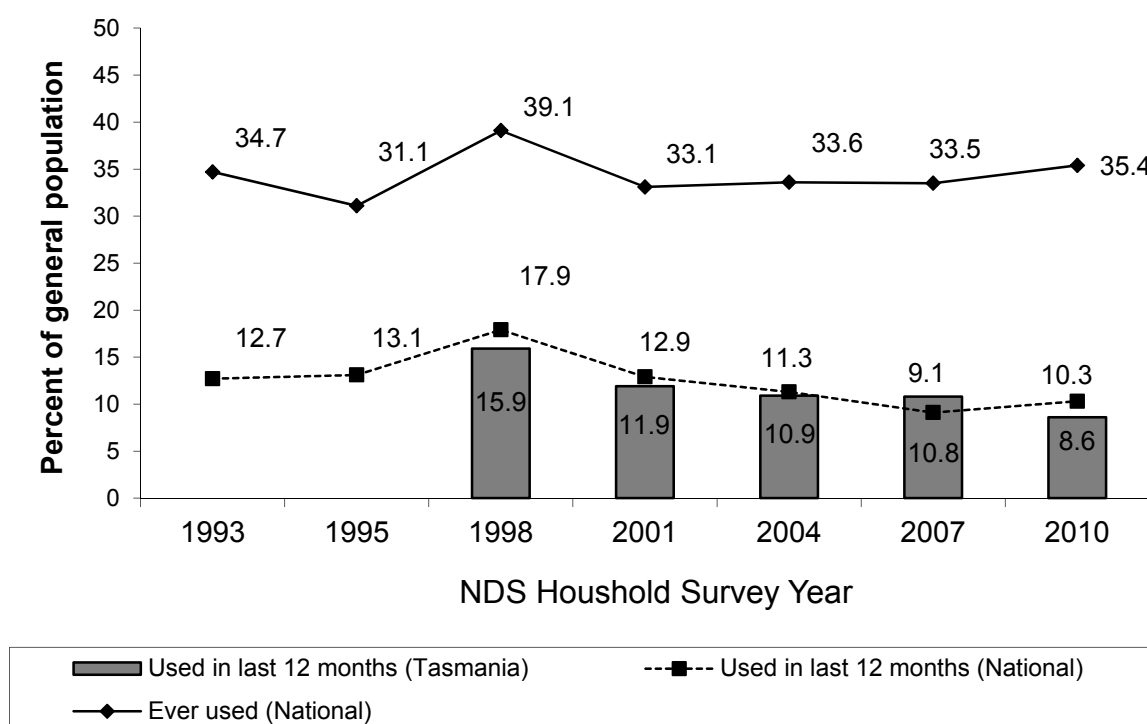
Source: EDRS interviews

[#]among those who had used in last six months

4.6.2 Cannabis use in the general population

In the 2010 NDSHS (AIHW, 2011) it was estimated (from the sample of 1,060 participants) that approximately 8.6% (95%CI 7.0-10.4) of Tasmanians (aged 14 years and over) had used cannabis in the year prior (Figure 5), which tended to be lower ($p=.09$) compared to 2007 (10.8% 95%CI 9.1-12.7). However, national recent use (in the last year) of cannabis increased significantly from 9.1% in 2007 to 10.3% in 2010.

Figure 5: Prevalence of cannabis use in Australia and Tasmania (aged 14 years and over), 1993-2010



Source: NDSHS, 1993-2010

4.7 Other drug use

Summary:

- All (100%) of the 2013 REU sample had recently consumed alcohol, on an average of three days a week in the last six months. A majority (76%) had used alcohol at least weekly (but not daily), which is substantially higher than the estimate of prevalence in the general population (43.9%), among those aged 20-29 nationally – a comparable age group to the current REU cohort.
- Tobacco had recently been used by four-fifths (76%) of the sample. Almost one-half (45%) reported daily use in the last six months, similar to the proportion in 2012 (61%) but significantly higher than the 2010 population estimate for this age group (20-29) both in Tasmania (25.5%) and nationally (18%).
- Consistent with the low levels of use reported in previous years, less than one-tenth reported recent use of ketamine (9%) or MDA (8%) and none reported recent use of GHB, gamma-butyrolactone (GBL) or 1,4 butanediol (1,4B).
- Less than one-fifth (15%) had used mushrooms in the preceding six months, compared to a greater proportion in 2012 (26%). Mushrooms had been used on a median of 2.5 days (range 1-24 days) during this time.
- There was less use of inhalants among the 2013 sample, with a significantly lower proportion reporting use of amyl nitrate (9% vs. 24%) and nitrous oxide (9% vs. 27%) compared to 2012.
- Almost one-third (34%) of REU had used benzodiazepines during the last six months, with almost one-third (30%) reporting illicit (non-prescribed) use and one-tenth (8%) reporting licit use. The proportion of REU reporting illicit benzodiazepine use is much higher than recent estimates of past-yearly use in the general population aged 20-29 years (2.6%). However, use of illicit benzodiazepines relatively low in frequency, at three days (range 1-40 days) in the last six months.
- One-tenth of the sample (9%) reported recent licit (as prescribed) use of antidepressants and none reporting recent illicit use.
- One-fifth (18%) of REU reported recent illicit use of pharmaceutical stimulants (such as dexamphetamine or methylphenidate) in 2013. The median frequency of use was three days (range 1-12 days) in the last six months, with a median of two tablets (range 1-5) taken in a typical session of use.
- Only small proportions of the 2013 sample had recently used heroin (5%), buprenorphine (4%) or methadone (1%) and one-tenth (11%) reported recent use of 'other opioids' (restricted pharmaceuticals and alkaloid poppy derivatives).
- A small proportion (3%) reported recreational use of stimulant-based over-the-counter preparations and almost one-tenth (9%) reported recent non-pain use of over-the-counter codeine preparations.
- Almost one-quarter (24%) reported use of mephedrone in the last six months, which is significantly greater than 2012 (10%), similar to 2011 (27%) and significantly fewer relative to the peak in use observed in 2010 (47%). Mephedrone was snorted or swallowed on a median of three days (range 1-12 days) in the last six months.
- Recent use of other NPS was relatively low. The most commonly used substances in the last six months were DMT (11%), 2CB (5%), 2CI (4%), dextromethorphan (DXM) (4%), methylenedioxypyrovalerone (MDPV) (4%), herbal highs (4%), mescaline (3%) and 5-MeO-DMT (3%). In addition, one-fifth of the sample (20%) reported recent use of capsules of 'unknown contents'.

4.7.1 Alcohol

The entire sample (100%) of REU interviewed in 2013 had used alcohol at some stage in their lives (see Table 12). The median age that respondents had first used alcohol was 14 years (range 8-25 years) and there was no significant difference in the mean age of first use for males (15 years) and females (14 years).

All participants (100%) had used alcohol during the six months preceding the interview, with a median frequency of 72 days (range 1-180 days), or approximately three days a week on average, which is similar to the median frequency of use between 2004 and 2011 (48-72 days), but lower than 2012 (80 days).

Based on data from the 2010 NDSHS (AIHW, 2011), it was estimated that among those aged between 20 and 29 nationally, 43.9% had used alcohol on a weekly basis and 2.1% had used alcohol on a daily basis in the past 12 months. A large majority (76%) of the 2013 EDRS sample had used alcohol at least weekly (but not daily) during the six months preceding the interview, which is substantially higher relative to those aged 20-29 nationally (43.9%). The proportion of REU reporting recent daily use of alcohol in 2013 was 18% compared to 2.3% among those aged 20-29 in the general population nationally.

Table 12: Patterns of alcohol use of REU, 2005-2013

Alcohol	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	100	100	100	100	100	100	100	99	100
Median age first used (range)	14 (8-18)	15 (4-19)	14 (8-18)	14 (7-17)	14 (6-20)	14 (10-17)	14 (1-18)	14 (8-18)	14 (8-25)
Used last 6 months (%)	98	95	99	100	99	100	100	98	100
Median days used (range)	49 (2-180)	48 (2-180)	48 (1-180)	72 (12-180)	55 (4-180)	48 (2-180)	60 (3-180)	80 (13-180)	72 (1-180)

Source: EDRS interviews

#among those who had used in last six months

REU participants also completed the Alcohol Use Disorders Identification Test (AUDIT) (Saunders, et al., 1993) which is a brief screening scale to identify individuals with alcohol problems, including those in early stages (see Section 7.4).

4.7.2 Tobacco

A large proportion (90%) of the REU sample in 2013 had smoked tobacco at some stage in their lives (Table 13). The median age that tobacco was first used was 16 years (range 5-25 years) and there was no significant difference between the age of first use for males (15 years) and females (15 years).

A large majority (76%) of the sample had smoked tobacco during the six months preceding the interview compared to a similar proportion among the 2012 sample (80%). There was no significant difference in the proportion of males (85%) and females (85%) reporting recent use of tobacco or in the proportion of 'older' (89%) and 'younger' (81%) participants (based on a median split for age).

Three-fifths (59%, 95%CI 46-70%) of those who had recently smoked (45% of the entire sample) reported smoking tobacco on a daily basis during the six months preceding the interview, which is similar to the proportion in 2012 (61% 95%CI 51-70) but significantly greater relative to the proportion in 2011 (38%, 95%CI 27-50%), 2010 (28%, 95%CI 20-37) and 2009 (42%, 95%CI 33-52). Among those who had used tobacco in the last six months, a significantly greater proportion of females (74%) relative to males (47%) reported daily use, $\chi^2=4.06$, $p=.044$, and a significantly greater proportion of younger (73%) relative to older (47%) participants reported daily use. One-fifth (22%) of those that had recently smoked tobacco had done so once a week or less during the six months preceding the interview, which is similar to the proportion in 2012 (18%).

In the 2010 NDSHS (AIHW, 2011), it was estimated that approximately 15.9% of Tasmanians (aged 14 years and over) smoked tobacco on a daily basis in the year prior to interview, a significant decrease compared to 2007 (22.6%). There was also a significant decrease nationally from 16.6% in 2007 to 15.1% in 2010. Among those aged 20-29, 25.5% of Tasmanians had smoked tobacco on a daily basis, compared to 18% nationally. In 2013, almost one-half (45%) of the Tasmanian EDRS sample had smoked on a daily basis, which is higher than the 2010 population estimate for this age group (20-29) both in Tasmania (25.5%) and nationally (18%).

Table 13: Patterns of tobacco use of REU, 2005-2013

Tobacco	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	89	94	90	96	92	96	97	95	90
Median age first used (range)	15 8-20	15 7-23	15 7-21	15 6-22	15 9-25	15 7-22	15 7-23	14 5-26	16 5-25
Used last 6 months (%)	83	81	74	86	77	80	83	80	76
Used daily [#]	61	63	49	37	42	28	38	61	59
Used weekly or less [#]	18	19	14	33	40	45	33	18	22

Source: EDRS interviews

[#]among those who had used in last six months

4.7.3 Ketamine

Almost one-fifths (18%) of the 2013 REU sample had used ketamine at some stage of their life (Table 14). The median age of first use was 20 years (range 17-28 years). Around one-tenth (9%) had used ketamine in the six months preceding the interview in 2013, which is consistent with the low level of use among the cohort since 2004 (see Table 14). The median frequency of ketamine use was two days (range 1-2 days) in the six months preceding the interview and it was typically snorted during this time.

In the 2010 NDSHS (AIHW, 2011) it was estimated that approximately 0.2% of Tasmanians had used ketamine in the year prior to interview, compared with 0.3% in 2007. Nationally, there was a significant increase in past yearly use between the 2007 (1.1%) and 2010 (1.4%) surveys.

Several local KE who commented on ketamine (n=2) indicated that the use and availability of the drug had recently increased.

Table 14: Patterns of ketamine use among REU, 2005-2013

Ketamine	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	24	23	23	26	21	19	32	25	18
Median age first used (range)	22 16-28	22 19-30	20 18-30	21 18-26	21 15-35	20 17-24	21 16-29	20 15-32	20 17-28
Used in last 6 months (%)	11	6	14	6	5	6	8	4	9
Median days used (range) [#]	3 1-5	2* 1-3	1 1-30	1* 1-5	2* 1-2	1* 1-5	2.5* 2-30	2* 1-3	2* 1-2
Route (%) [#]									
Snorted	45	50	50	50	60	33	100	75	100
Swallowed	91	50	57	50	40	67	-	25	-
Injected	-	-	-	17	-	-	17	-	-
Smoked	-	-	-	-	-	-	17	-	-
Median points used typical session (range) [#]	-	-	1.5* 1.5	2* 2-2	1.5* 1-2	3* 1-5	1.5* 1-2	0.5* n=1	2* 1-2.5
Median points used biggest session (range) [#]	-	-	1.75* 1.5-2	2* 2-2*	1.5* 1-2	3* 1-5	3* 2-4	1* n=1	2.5* 1-5

Source: EDRS interviews

* n<10

[#] among those who had used in last six months

4.7.4 GHB/GBL/1,4B

GHB may also be known as 'GBH', 'grievous bodily harm', 'fantasy', 'liquid ecstasy', 'liquid E' and 'blue nitro' in Australia. GHB has received unfavourable mentions in the media due to GHB-related deaths and overdose and its suspected use in the facilitation of sexual assaults. A 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. A retrospective study of GHB-related deaths in Australasia from 2000 to 2003 (Caldicott, Chow, Burns, Felgate & Byard, 2004) reported 10 confirmed GHB-related deaths during this period, two of which were also associated with use of alcohol.

Several substances such as GBL and 1,4B are metabolised to GHB following ingestion and may be used as substitutes for GHB (ACC, 2003). There were no reports of use of 1,4B or GBL among the Tasmania sample between 2004 and 2006. In 2007, GBL and 1,4B were incorporated into the category of GHB due to their similarities and low individual levels of use.

Data in relation to GHB/GBL/1,4B should be interpreted with caution due to small sample sizes. Six participants (8%) in the 2013 sample had used GHB/GBL/1,4B at some stage of their lives (Table 15). The median age of first use of GHB was 21.5 years (range 15-31 years). In 2013, none of the participants reported use of GHB/GBL/1,4B use in the six months preceding the interview (Table 15), which is consistent with the low levels of recent use among previous EDRS cohorts (1%-3%).

In the 2010 NDSHS, none of the Tasmanians sampled had used GHB in the year prior to interview, compared with 0.1% of Australians nationally (AIHW, 2011).

Table 15: Patterns of GHB/GBL/1,4B use among REU, 2005-2013

GHB	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	7	9	4	7	11	9	5	10	8
Median age first used (range)	21* 18-3)	23* 21-3)	24* 20-31	22* 18-30	22 17-35	22* 18-28	25.5* 23-28	19.5 16-24	21.5* 15-31
Used last 6 months (%)	2	3	1	1	3	2	3	2	0
Median days used (range) [#]	2 2-2	2 1-3	6 n=1	1 n=1	1 1-2	1 1-1	1.5 1-2	1 1-1	n/a
Route (%) [#] Swallowed	100	100	100	100	100	100	100	100	n/a
Median quantity used (ml) [#]	n=1		n=1		n=3		n=2	n=1	n/a
Typical session (range)	25	-	9	-	10 (1-50)	-	16 (2-30)	60	
Biggest session (range) [#]	50	-	36	-	10 (1-50)	-	16 (2-30)	120	

Source: EDRS interviews

Note: Includes GBL and 1,4B from 2007 onwards

* n<10

among those who had used in last six months

4.7.5 MDA

Less than one-fifth (16%, 95%CI 9-26%) of the 2013 sample had ever used MDA (Table 16) which is similar to the proportion in 2012 (32%, 95%CI 8-21%). The median age of first use was 20 years (range 17-33 years).

Six participants (8%) reported consuming MDA during the six months preceding the interview (Table 16), which is similar to the proportion in 2012 (4%).

MDA was typically swallowed (83%) on a median of 2.5 days (range 1-48 days) in the preceding six months, with a median of 1.75 capsules (range 1-3 capsules) consumed in a typical session, and 2.25 capsules (range 2-5 capsules) consumed in the biggest session of use.

Table 16: Patterns of MDA use among REU, 2005-2013

MDA	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	8	14	8	15	10	14	32	13	16
Median age first used (range)	23 17-2	22 15-3	20 18-27	21 18-26	21 14-35	19 15-25	19 17-28	20 16-29	20 17-33
Used in last 6 months (%)	3	3	5	3	8	5	21	4	8
Median days used (range) [#]	2* 1-2	1* 1-1	4* 1-12	1* 1-3	2* 1-24	2* 1-3	2 1-12	9* 4-30	2.5* 1-48
Route (%) [#]									
Smoked	-	-	-	-	13	-	6	-	17
Snorted	-	33	-	-	25	60	63	50	17
Swallowed	100	67	100	100	88	40	75	75	83
Injected	-	-	-	-	13	-	-	25	17
Median caps [#]									
Typical session (range)	1* 1-1	1* 1-1	2* 1-3	2* 1-4	2* .75-4	1* 0.4-2	1.5 .5-5	1* 1-2	1.75* 1-3
Biggest session (range)	1.5* 1-2	1* 1-1	2* 1-5	2* 1-8	2* .75-7	1* 0.4-2	3 1-9	2* 2-3	2.25* 2-5

Source: EDRS interviews

* n<10

among those who had used in last six months

4.7.6 Psychedelic mushrooms

Just under three-quarters (71%) of the 2013 REU sample had ever used psychedelic mushrooms (Table 17). The median age of first use for mushrooms was 17.5 years (range 12-29 years).

Less than one-fifth (15% 95%CI 8-24%) of the 2013 sample had used mushrooms in the preceding six months (Table 17), which tended to be lower compared to 2012 (26% 95%CI 18-35%) ($p=.09$). There was no significant difference in the proportion of males (21%) and females (6%) ($p=.076$), or the proportion of younger (11%) and older (18%) participants reporting recent use (based on a median split for age).

All of those that had recently used mushrooms (100%) had ingested them, although smoking was also reported (1%). The median frequency of mushroom use was two days (range 1-6 days) in the preceding six months, or approximately once every two months.

Table 17: Patterns of psychedelic mushroom use of REU, 2005-2013

Psychedelic mushrooms	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	63	74	66	61	56	58	64	81	71
Median age first used (range)	20 14-28	20 11-29	19 15-26	20 14-43	19 12-31	19 14-30	18.5 14-25	17 13-26	17.5 12-29
Used in last 6 months (%)	40	55	39	31	21	18	23	26	15
Median days used (range) [#]	3 1-12	3 1-19	3 1-20	2 1-12	2 1-30	2 1-6	3 1-24	2.5 1-24	2 1-6

Source: EDRS interviews

among those who had used in last six months

4.7.7 Inhalants

Amyl nitrate

Around two-fifths (42%) of the 2013 REU sample had ever used amyl nitrite (Table 18). The median age of first use was 19 years (range 14-28 years).

Less than one-tenth of the 2013 sample (9%, 95%CI 5-18%) reported recent use of amyl nitrite compared to significantly higher proportions in 2012 (24% 95%CI 17-33) and 2011 (29%, 95%CI 20-40).

The median frequency of use was four days (range 1-20) during the six months preceding the interview or less than once every six weeks.

Table 18: Patterns of amyl nitrite use of REU, 2005-2013

Amyl nitrite	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	49	41	43	38	67	76	76	53	42
Median age first used (range)	19 14-2	20 14-55	20 15-37	20 12-24	21 14-26	20 16-28	20 15-26	20 13-35	19 14-28
Used last 6 months (%)	16	10	20	15	51	51	29	24	9
Median days used (range) #	3.5 1-20	3 1-10	1.5 1-10	2 1-96	5 1-72	6 1-48	4 1-20	2 1-14	4 1-20

Source: EDRS interviews

among those who had used in last six months

Nitrous oxide

Three-fifths of the 2013 sample (60% 95%CI 49-71%) had ever used nitrous oxide, compared to a significantly greater proportion (80% 95%CI 71-87%) in 2012 (Table 19). The median age of first use was 17 years (range 14-28 years).

Less than one-tenth (9%, 95%CI 5-18%) of the 2013 sample had used nitrous oxide during the six months preceding the interview, which is significantly lower than the proportion among the 2012 sample (27% 95%CI 19-39) and among the samples prior to this (29-36%). There was no significant difference in the proportion of males (12%) and females (6%) reporting recent use, but a significantly greater proportion of younger (16%) relative to older (3%) participants, reported recent use, $\chi^2=3.93$, $p=.047$.

The median frequency of use during the last six months was 1.5 days (range 1-60 days). The median number of bulbs used in a typical session was eight (range 3-40 bulbs) and the median number used in a heavy session of use was eight (range 5-60 bulbs).

Table 19: Patterns of nitrous oxide use of REU, 2005-2013

Nitrous oxide	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	69	69	64	62	54	57	59	80	60
Median age first used (range)	18 15-29	19 11-30	19 15-32	19 15-28	19 12-32	19 14-26	19 12-28	17 13-27	17 14-28
Used last 6 months (%)	41	39	46	29	32	32	36	27	9
Median days used (range) [#]	5 1-24	5 1-30	5 1-50	4 1-60	5 1-40	4 1-48	5 1-24	4 1-50	1.5 1-60
Bulbs used [#]	7	5	9	10	10	6	5.5	8	8
Typical session (range)	1-40	1-40	1-60	1-50	1-25	1-20	1-20	2-90	3-40
Biggest session (range)	9 1-60	10 1-140	15 1-180	20 1-100	17 1-80	10 2-55	10 1-40	15 2-90	8 5-60

Source: EDRS interviews

[#]among those who had used in last six months

4.7.8 Benzodiazepines

Almost half (47%, 95%CI 37-58%) of the 2013 sample had used benzodiazepines at some stage of their life (Table 20). The median age of first use was 19 years (range 12-30 years).

One-third (34%, 95%CI 25-45%) of the sample had used benzodiazepines during the six months preceding the interview, compared to a similar proportion in 2012 (31%, 95%CI 23-41%). The median frequency of recent benzodiazepine use was six days (range 1-180 days) during the last six months. Almost three-fifths (58%) of those who had recently used benzodiazepines had done so on six or less occasions in the last six months.

Almost one-tenth (8%) of the sample reported recent licit (prescribed) use. Licit benzodiazepines had been used on a median frequency of 36 days (range 10-180 days) during the six months preceding the interview.

Almost one-third (30%, 95%CI 21-41%) of the 2013 sample reported recent illicit (non-prescribed) use of benzodiazepines, which is not statistically different to the proportion in 2012 (25%, 95%CI 18-34%). Illicit benzodiazepines had been swallowed (96%), snorted (13%) or smoked (4%), on a median three days (range 1-40 days) during this time. There was no significant difference in the proportion of males (30%) and females (31%) or older (34%) and younger (26%) participants (based on a median split for age) who reported recent use of illicit benzodiazepines. Several KE (n=3) reported that it was becoming more common for benzodiazepines to be purchased online.

Of the Tasmanians surveyed in the 2010 NDSHS (AIHW, 2011), 1.3% of the sample had used benzodiazepines for non-medical purposes in the past year, compared to 1% in 2007. Nationally, 1.5% of the population reported past year use compared to 1.4% in 2007. The proportion of the 2013 REU sample reporting recent use (during the last six months) of illicit benzodiazepines (30%) is considerably higher than past yearly prevalence in the general population aged 20-29 years (2.6%).

Table 20: Patterns of benzodiazepine use of REU, 2005-2013

Benzodiazepines	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	40	48	41	51	36	44	61	45	47
Ever injected (%)	3	4	2	1	4	2	3	2	1
Median age first used (range)	19 10-28	21 14-35	20 13-34	21 13-29	20 14-28	20 14-27	20 12-35	19 13-34	19 12-30
Used in last 6 months (%)	25	33	25	37	24	27	45	31	34
Injected last 6 months (%)	-	-	1	-	1	-	-	-	-
Median days used (range) [#]	3 1-50	5 1-180	4 1-30	4 1-180	4 1-60	4 1-80	7 1-180	5 1-180	6 1-180
Licit use last 6 months (%)	n/a	n/a	9	10	6	6	12	10	8
Illicit use last 6 months (%)	n/a	n/a	20	31	19	23	36	25	30

Source: EDRS interviews[#] among those who had used in last six months

4.7.9 Antidepressants

Almost one-quarter (24%) of the 2013 sample had used antidepressants at some stage of their life (Table 21). The median age of first use was 18 years (range 12-31 years).

Only seven participants (9%) had used antidepressants in the six months preceding the interview, with all of these reporting recent licit use and none reporting recent illicit use.

Licit antidepressants had been used orally on a median frequency of 180 days (range 14-180 days) during the six months preceding the interview.

Table 21: Patterns of antidepressant use of REU, 2005-2013

Anti-depressants	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	21	20	24	22	16	16	23	16	24
Median age first used (range)	18 16-27	20 14-35	20 14-35	18 10-27	21 14-42	18 12-26	17 14-27	18.5 14-30	18 12-31
Used last 6 months (%)	12	9	11	6	10	5	8	4	8
Median days used (range) [#]	180 1-180	34 3-180	180 1-180	135 30-180	105 2-180	15 1-180	135 3-180	180 72-180	180 14-180
Licit use last 6 months (%)	n/a	n/a	6	5	9	3	7	4	9
Illicit use last 6 months (%)	n/a	n/a	5	1	1	2	1	1	0

Source: EDRS interviews[#] among those who had used in last six months

4.7.10 Pharmaceutical stimulants

In the 2007 EDRS a distinction was made between illicit (non-prescribed) and licit (prescribed) use of pharmaceutical stimulants. Prior to this, data may include illicit and licit

use. However, given the low median frequency of use (pharmaceutical stimulants are typically prescribed for daily administration long-term), it is likely that the majority of this use was illicit.

In 2013, two participants (3%) reported past use of licit pharmaceutical stimulants and one participant (1%) had used licit pharmaceutical stimulants during the six months preceding the interview.

More than two-fifths (43%) of the 2013 sample had ever used illicit pharmaceutical stimulants (Table 22). The median age of first use was 19 years (range 12-28 years). Almost one-fifth (18%, 95%CI 18-34%) had used pharmaceutical stimulants in the six months preceding the interview, similar to the proportion among the cohorts between 2004 and 2012 (9-20%). There was no significant difference in the proportion of males (40%) relative to females (50%) or younger (47%) and older (39%) participants who had recently used illicit pharmaceutical stimulants.

Of those who had recently used pharmaceutical stimulants the majority had taken the drugs orally (86%), and smaller proportions had recently snorted (43%), smoked (7%) or injected (7%) these drugs in the preceding six months. The median frequency of use was three days (range 1-12 days) in the six months preceding the interview. The median number of tablets used in a typical session was two (range 1-5 tablets) and the median number used in a heavy session of use was four (range 1-10 tablets).

According to KE reports (n=2), the price of illicit dexamphetamine ranges from \$5-13 per pill.

Table 22: Patterns of illicit pharmaceutical stimulant use of REU, 2005-2013

Pharmaceutical stimulants	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	44	50	40	41	30	21	39	46	43
Median age of first use (range)	19 15-28	19 11-31	18 14-31	19 13-47	19 11-28	18 14-25	17 13-30	20 12-45	19 12-28
Used last six months (%)	16	12	19	16	10	9	15	20	18
Median days used (range) [#]	3.5 1-30	2 1-60	2 1-90	2 1-10	2 1-15	1 1-58	5 3-20	3 1-20	3 1-12
Median tablets typical session (range) [#]	4 2-10	5 1-8	3 2-20	3 1-10	4 1-15	5 1-15	3.5 2-10	2 1-7.5	2 1-5
Median tablets biggest session (range) [#]	6 2-25	6 1-32	5 2-20	6 2-25	5 1-20	5 1-15	5 3-15	3 1-25	4 1-10

Source: EDRS interviews

Note: Data includes only illicit use from 2007 onwards (data from previous years may include both illicit and licit use)

[#] among those who had used in last six months

4.7.11 Over-the-counter preparations

Almost one-tenth (9%) reported use of over the counter codeine-based products (e.g., Nurofen plus, Panadeine) for non-medical purposes during the last six months compared to similar proportions between 2009 and 2012 (5%-16%) (Table 23). The median frequency of this use was seven days (range 1-90 days) in the last six months. Several KE (n=3) who noted increased use of OTC codeine among their client group. Gastro-intestinal problems were mentioned as a major health issue among users of these drugs (n=2).

Two participants (3%) reported ingesting over the counter stimulant-based products (e.g., pseudoephedrine-based cold and flu tablets) for non-medical purposes during the six months preceding the interview. The median frequency of use was 2.5 days (range 2-3 days), or approximately once every three months, during the last six months.

Table 23: Non-medical use of over-the-counter preparations among REU, 2009-2013

	Codeine-based					Stimulant-based				
	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	17	12	n/a	21	24	10	13	39	12	7
Median age first use (range)	20 14-32	18 16-25	n/a	20 10-51	20 13-28	20 17-26	22 15-35	17 13-30	22.5 12-30	18 14-23
Used last 6 months (%)	9	5	9	16	9	6	3	5	4	3
Injected last 6 mths (%)	-	-	-	-	-	-	-	-	-	-
Median days use (range) [#]	2 1-90	n/a	4 1-64	4 1-40	7 1-90	5 2-12	3 2-4	5 3-20	3.5 1-22	2.5 2-3

Source: EDRS interviews

[#] among those who had used in last six months

4.7.12 Heroin and other opiates

Heroin

Less than one-fifth (16%) of the 2013 REU sample had ever used heroin (Table 24). The median age of first heroin use was 19 years (range 15-29 years). Four participants (5%) had used heroin during the six months preceding the interview, and of these three participants (4%) had used heroin intravenously and one participant (1%) had snorted heroin. The median frequency of use was 5.5 days (range 3-30 days), or approximately once every month, during the last six months. For intravenous heroin use the median frequency of use was five days (range 3-6 days) during the last six months. The low reported use and availability of heroin among REU in Hobart is consistent with data reported in the Tasmanian IDRS among people who inject drugs (see de Graaff, Peacock & Bruno, 2014) and is also consistent with the anecdotal comments of KE (n=9) in 2013.

Table 24: Patterns of heroin use of REU, 2005-2013

Heroin	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	8	10	5	6	6	8	17	10	16
Median age first use (range)	22 16-26	18 15-32	19 16-21	20 16-27	20 15-29	19 14-25	21 16-23	20.5 14-23	19 15-29
Used in last 6 months (%)	-	2	-	1	3	2	8	1	5
Injected last 6 months (%)	-	2	-	-	-	2	8	1	4
Median days used (range) [#]	-	7 3-10	-	1 n=1	1 1-48	9 2-15	13 2-31	4 n=1	5.5 3-30

Source: EDRS interviews [#]among those who had used in last six months

Methadone

Less than one-tenth (7%) of the 2013 REU sample had ever used methadone, which is consistent with the low levels of lifetime use reported in previous years (Table 25). The median age of first methadone use was 25 years (range 18-29 years). One participant (1%) had used methadone intravenously on one day during the last six months

Table 25: Patterns of methadone use of REU, 2005-2013

Methadone	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	5	9	6	3	8	10	8	9	7
Median age first used (range)	20 16-22	21 16-34	22 14-30	20 19-22	21 14-25	21 17-25	22 18-25	23 18-30	25 18-29
Used in last 6 months (%)	1	5	1	2	4	5	4	4	1
Injected last 6 months (%)	1	3	-	1	-	-	3	-	1
Median days used (range) [#]	180 n=1	20 1-180	1 n=1	90 1-180	24 2-180	4 2-24	180 6-180	14.5 3-48	1 n=1

Source: EDRS interviews [#]among those who had used in last six months

Buprenorphine

Consistent with the low levels of buprenorphine use among the REU cohorts in previous years, four participants had ever used buprenorphine among the 2013 sample (Table 26), and only three participants (4%) had used buprenorphine on a median of nine days (range 1-10 days) during the last six months.

Table 26: Patterns of buprenorphine use of REU, 2005-2013

Buprenorphine	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	2	3	1	2	2	5	8	4	5
Median age of first use (range)	21 20-22	32 22-35	22 n=1	28 22-33	24 20-28	20 19-25	28.5 23-33	37 23-46	21 12-28
Used last 6 months (%)	1	1	1	1	1	1	3	2	4
Injected last 6 months (%)	-	-	1	-	-	-	1	-	4
Median days used (range) [#]	6 n=1	180 n=1	1 n=1	15 n=1	90 n=1	14 n=1	9.5 4-15	92 24-160	9 1-10

Source: EDRS interviews[#]among those who had used in last six months*Other opioids*

'Other opioids' comprise a broad drug class including restricted pharmaceuticals such as morphine and oxycodone, and alkaloid poppy plant derivatives such as opium or 'poppy wash'. Around one-fifth (22%) of the 2013 REU sample had ever used 'other opioids' for not-as-prescribed (or non-licit) purposes (Table 27). The median age of first use was 20 years (range 13-32 years).

Around one-tenth (11%) of the sample had used 'other opioids' for non-medical purposes in the last six months. The median frequency of use was 5.5 days (range 1-30 days) during the six months preceding the interview. For those who had recently used 'other opioids', the most common routes of administration were injecting (50%) and swallowing (50%).

Table 27: Patterns of illicit 'other opioid' use among REU, 2005-2013

Other opioids	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	25	33	23	29	19	19	29	16	22
Median age first used (range)	18 16-27	20 14-29	19 13-25	20 15-27	19 13-27	18 14-27	19.5 16-25	21.5 14-31	20 13-32
Used last 6 months (%)	13	14	8	17	6	4	16	4	11
Injected last 6 months (%)	-	4	1	3	1	-	9	75	5
Median days used (range) [#]	8 1-48	3 1-121	8 1-72	4 1-96	3 1-24	4 1-12	6 1-40	4 1-5	5.5 1-30

Source: EDRS interviews[#]among those who had used in last six months

4.7.13 Antipsychotic medications

Less than one-fifth (6%) of the 2013 REU sample had ever used antipsychotic medications (Table 28), and 5% had used them during the six months preceding the interview. Two participants reported licit use (Clopixol and Seroquel) and two participants reported illicit use (Seroquel) of these drugs during this time. Anti-psychotic medications had typically been swallowed, with a single participant reporting intravenous use of these drugs during the last six months. The median frequency of use was 96 days (range 12-180 days) for licit use and 5.5 days (range 1-10) for illicit use.

Table 28: Patterns of antipsychotic medication use among REU, 2013

Heroin	2013 n=76
Ever used (%)	9
Used in last 6 months (%)	5
Injected in last six months (%)	1
Licit use in last six months (%)	3
Median days licit use [#]	96 12-180
Illicit use in last six months (%)	3
Median days illicit use [#]	5.5 1-10

Source: EDRS interviews

[#]among those who had used in last six months

4.8 New psychoactive substance (NPS) use

4.8.1 Mephedrone

Mephedrone (4-methylmethcathinone) is a synthetic stimulant (common names include 4-MMC, meow meow, m-cat, plant food) that is chemically similar to cathinone which is found in the *Catha edulis* or 'khat' plant. The 'khat' plant has a long history of human use, particularly in many east African communities such as in Yemen and Somalia. Mephedrone has grown in popularity worldwide in recent years, particularly in the UK and Europe (see Brunt, Poortman, Niesink, & Van den Brink, 2010; Winstock et al, 2010).

Mephedrone is purported to have both stimulant and hallucinogenic/euphoriant properties and its effects have been likened to cocaine, MDMA, and amphetamines (Measham, Moore, Newcombe, & Welch, 2010; Winstock et al, 2010). Based on its chemical structure, it is likely that mephedrone has effects similar to amphetamines and therefore stimulates the release of monoamine neurotransmitters and then inhibits their reuptake (Winstock et al, 2010). There are also several less popular synthetic cathinones available such as methylone, and butylone (James et al., 2010; Winstock et al, 2010). For more information on mephedrone use in Australia, see Matthews and Bruno (2010). Mephedrone first appeared in Tasmania as capsules known as 'neodoves' or 'Israelis' in 2008 and 2009, but was commonly marketed as mephedrone in 2010 and 2011.

Over two-fifths (42%) of the 2013 REU sample reported lifetime use of mephedrone. Almost one-quarter (24%, 95%CI 16-34%) reported use of mephedrone in the last six months (Table 29), which is significantly greater than 2012 (10%, 95%CI 6-17%), similar to 2011 (27%, 95%CI 18-38%), but significantly lower when compared to the peak in recent use observed in 2010 (47%, 95%CI 38-57%).

Mephedrone was typically snorted or swallowed and was used on a median frequency of three days in the last six months (range 1-12) or approximately once every two months. Of those who commented on the last source of mephedrone (n=18), a majority had last obtained mephedrone from a friend (50%), dealer (33%), internet (11%) or partner (6%).

Several KE (n=9) noted some use of mephedrone among the drug consumers that they were familiar with, with others (n=2) commenting that they were not aware of any use of the drug. While some KE noted a recent increase in the use and availability of the drug (n=5), others noted no change (n=6) or a recent decrease (n=1). Several KE (n=4) indicated that some people were presenting to treatments services with acute problems (e.g., hallucinations, psychosis, paranoia) after taking the drug.

Table 29: Patterns of mephedrone use of REU, 2008-2013

	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever used (%)	1	15	65	37	29	42
Used last 6 months (%)	1	15	47	27	10	24
Route of administration	n/a	n/a				
Swallow (%)			62	68	70	78
Snort (%)			66	74	60	44
Smoke (%)			2	-	-	6
Inject (%)			-	5	-	6
Median days used (range) [#]	30 n=1	2 1-90	6 1-36	3 1-30	2.5 1-12	3 1-12

Source: EDRS interviews

[#]among those who had used in last six months

4.8.2 Other NPS

Table 30 shows the proportion of the EDRS cohorts reporting recent use of other 'new psychoactive substances' or 'research chemicals' during the six months preceding the interview. Chemicals such as mephedrone and 2CI/2CB/2CE are relatively new substances and little is known about the effects and risks associated with their use. In many countries, these chemicals are not controlled substances and they can often be purchased through chemical supply companies for 'research' purposes. Also included as NPS are substances which have been around for many years (e.g., mescaline, DMT) but which may have the potential to emerge as popular substances among this group.

The most common NPS substances used among the 2013 cohort were mephedrone (24%) (see also Section 4.8.1) and related substances such as methylone (also known as bk-MDMA) (1%) and MDPV (4%). Small proportions of the sample reported recent use of psychedelics such as DMT (11%), 2CB (5%), 2CI (4%), mescaline (3%), 5-MeO-DMT (3%), and 2CE (1%), and 4% reported recent use of DXM (a substance commonly found in over-the-counter cough medicine).

Only one participant (1%) of the 2013 sample reported recent use of synthetic cannabinoids. Several KE noted that there had been a recent increase in the use and local availability of synthetic cannabinoids (n=5), with several (n=4) noting that there had been recent instances of people experiencing negative health effects (e.g., mental health problems) and adverse reactions (e.g., hallucinations, panic attacks, respiratory problems) from the use of these substances. It was also noted that these substances are often used in the belief that they will not show up in drug screening.

Since 2011 participants were specifically asked whether they had recently consumed capsules of 'unknown content' (following from anecdotal reports of an 'unspecified' illicit capsule market in Hobart) or substances that could be classified as 'herbal highs' (given their availability in local 'head shops' and over the internet).

Recent use of capsules (contents unknown) was reported by 20% of the sample. These had typically been swallowed or snorted on a median of four days (range 1-15 days) in the last six months. Those who commented (n=15) indicated that the capsules had been sourced through friends (67%), dealers (27%), or had been given as a gift (7%). Several KE (n=8) also indicated that the use of capsules of unknown contents was common among the REU that they were familiar with. It was suggested that these capsules were often sold as ecstasy but contained other substances or a mixture of other substances, most typically other stimulants (e.g., cathinones, MDPV, alpha PVP, methamphetamine, and caffeine).

Recent use of 'herbal highs' was reported by 4% of the sample, with on a median frequency of three days (range 1-4 days) in the last six months. Herbal highs had been swallowed (33%) or smoked (67%) during this time. Those who commented (n=3) indicated that herbal highs had been sourced through friends (100%). Few participants specified which herbal highs they had consumed in the last six months; however, 'Cherry Bomb', 'Buzz', 'Northern Lights', 'Calamus' and 'Damiana' were mentioned by single participants.

Table 30: Use of NPS in last six months among REU, 2005-2013

% used in last 6 months	2005 n=10 0	2006 n=10 0	2007 n=10 0	2008 n=10 0	2009 n=10 0	2010 n=10 0	2011 n=75	2012 n=100	2013 n=76
Stimulants									
Mephedrone	-	-	-	1	14	47	27	10	24
Methylone	-	-	-	-	1	4	4	2	1
Other cathinone [^]	-	-	-	1	-	1	-	1	-
MDAI	-	-	-	-	-	-	-	1	-
BZP	-	1	2	-	-	2	-	-	-
MDPV	-	-	-	-	1	2	1	1	4
Psychedelic phenethylamines									
2CB	1	-	2	2	1	2	-	-	5
2CI	1	23	12	2	9	4	4	2	4
2CE	-	-	1	1	3	7	1	1	1
2C-T-7	-	-	-	-	-	1	-	-	-
DOI	-	-	-	-	-	3	-	-	-
Mescaline [#]	-	-	-	1	-	1	1	2	3
Psychedelic tryptamines									
DMT [#]	-	1	1	3	-	7	4	6	11
5-MeO-DMT [#]	-	-	-	1	-	-	3	1	3
PMA	-	-	-	-	-	1	-	-	-
Plant derivatives									
Datura	-	-	-	-	1	1	-	-	1
Salvia divinorum	1	-	-	1	1	1	-	1	1
LSA (woodrose seeds)	-	-	1	2	-	-	3	1	-
Inhalants									
Butane	-	-	-	1	-	-	-	-	-
Synthetic cannabinoids									
	-	-	-	-	-	-	1	4	1
Other									
DXM [*]	-	-	-	2	-	-	3	4	4
Ephedrine	-	-	-	-	1	-	-	-	-
5-HTP	1	-	-	-	-	-	-	-	-
PCP	-	-	-	-	-	-	-	-	-
Melanotan	-	-	-	-	-	-	1	-	-
Capsule (contents unknown)	n/a	n/a	n/a	n/a	n/a	n/a	15	16	20
Herbal highs	n/a	n/a	n/a	n/a	n/a	n/a	11	8	4

Source: EDRS interviews

* dextromethorphan (a common ingredient in over-the-counter cough medicines)

can also be derived from plants

^ includes methcathinone

5.0 DRUG MARKET TRENDS: PRICE, PURITY, AVAILABILITY AND SUPPLY

5.1 Ecstasy

Summary:

- The median last purchase price for ecstasy was \$30 for one tablet (range \$20-40) or one capsule (range \$20-40). No recent price changes were noted and two-thirds (63%) indicated that price had remained stable in the past six months.
- Ecstasy was reported to be medium (49%) or fluctuating (30%) in purity. These estimates are consistent with 2012 data, where there was a return to baseline following the low purity estimates observed in 2010 and 2011 when two-fifths (41-47%) of the sample reported that ecstasy was low in purity.
- Ecstasy was reported to be easy (50%) or difficult (35%) to obtain in 2013 and the proportion reporting that ecstasy was currently difficult to obtain was significantly greater when compared to 2012 (35% vs 10%). Similarly, a significantly greater proportion reported that ecstasy had recently become more difficult to obtain when compared to 2012 (33% vs. 6%).
- Ecstasy was typically last purchased from friends and last obtained from a friend's home, the respondent's own home, a nightclub or a public bar.
- Three-fifths (60%) indicated they had last purchased ecstasy both for themselves and for other people. A median of three tablets (range 1-10 tablets) had been purchased on the last occasion.

5.1.1 Price

The median last purchase price for one ecstasy tablet was \$30 (range \$20-40) in 2013 compared to \$30 in 2012 (\$18-50) and 2011 (\$15-40) (Table 31). The price per pill was reported to be lower at \$25 if 10 pills were last purchased (range \$17-35 per pill). The median last purchase price for one capsule of ecstasy was also \$30 (range \$20-40), which is consistent with data from the past four years. Last purchase prices for crystal MDMA are reported but should be interpreted with caution due to small sample sizes. Three-fifths (63%) of the sample indicated that the price of ecstasy had recently remained stable.

KE comments on the price of ecstasy were varied. The price for one ecstasy pill was reported to range from \$25 to \$50 (n=5), with an average price of \$20-25 per pill/capsule. No recent price changes were noted.

Table 31: Price of ecstasy purchased by REU and price variations, 2005-2013

Median price (range)	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Pill/Tablet									
Last price per pill (range)	\$40 20-50 n=95	\$35 20-50 n=97	\$40 15-50 n=99	\$35 15-40 n=96	\$35 18-40 n=98	\$35 24-35 n=91	\$30 15-40 n=61	\$30 18-50 n=86	\$30 20-40 n=69
10 ecstasy tablets (range)	\$350 250-400 n=12	\$350* 350-350 n=2	\$300* n=1	\$320 170-400 n=73	\$320 100-400 n=78	\$300 180-400 n=30	\$300 150-350 n=26	\$300 150-400 n=54	\$250 170-350 n=34
Powder									
Last price per gram (range)	-	-	\$350* n=1	-	\$250* 100-300 n=3	\$200* 120-250 n=8	\$300* n=1	\$350 n=1	\$300* 90-400 n=5
Capsule									
Last price per capsule (range)	-	-	-	\$35* 30-50 n=9	\$30 20-40 n=25	\$30 20-50 n=70	\$30 10-40 n=46	\$30 5-40 n=67	\$30 20-40 n=26
MDMA Crystal									
Last price per gram (range)	-	-	-	-	-	-	-	-	\$200 n=2
Last price per point (range)	-	-	-	-	-	-	-	-	\$100 30-150 n=3
Last price per capsule (range)	-	-	-	-	-	-	-	-	\$30 n=8
Price change (%)									
Don't know	-	-	2	-	8	9	5	7	9
Increased	7	5	18	14	10	38	14	7	11
Stable	67	54	65	55	52	40	65	74	63
Decreased	10	28	7	18	12	4	5	8	9
Fluctuated	16	13	8	13	17	9	11	4	8

Source: EDRS interviews

*n<10

The price of ecstasy reported by Tasmania Police to the ACC has varied substantially over the past decade (Table 32). A price range of \$30-50 was reported in 2010/11 which is consistent with the prices reported by REU in 2011 and 2012. There were no data for the 2011/12 financial year. At the time of publication, data were not available for the 2012/13 financial year.

Table 32: Price per tablet of ecstasy reported by Tasmania Police 2001/02-2011/12

	01/ 02	02/ 03	03/ 04	04/ 05	05/ 06	06/ 07	07/ 08	08/ 09	09/ 10	10/ 11	11/ 12
Price per pill (\$)	50-70	30-70	30-70	40-50	25-40	40	30-45	35-40	35-50	30-50	-

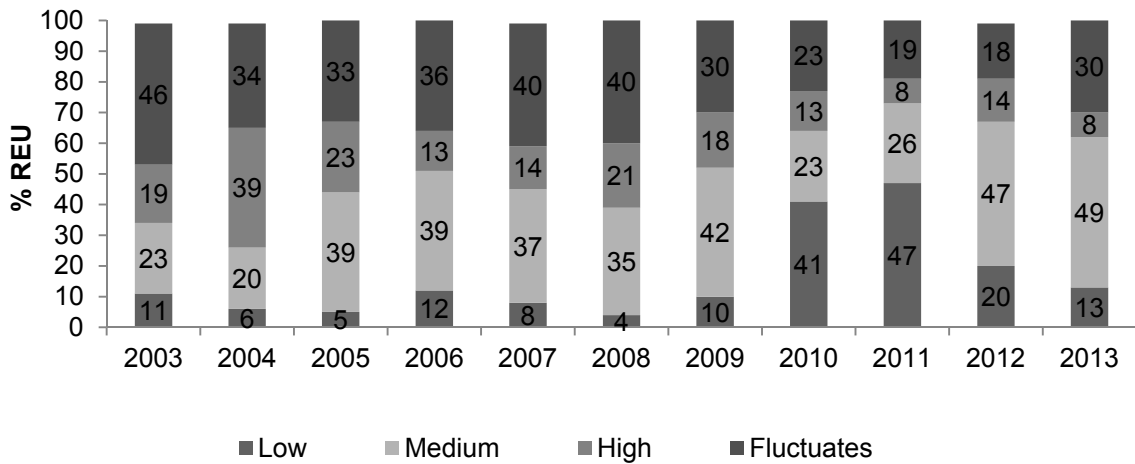
Source: ABCI (2002); ACC (2003-2013)

5.1.2 Purity

Ecstasy was reported to be medium (49%) or fluctuating (30%) in purity in the past six months. This is consistent with subjective reports of purity in 2012, but higher than 2010 and 2011 where two-fifths (41-47%) of the sample reported that ecstasy was currently low in purity (Figure 6). Ecstasy purity was reported to have either fluctuated (50%) or remained stable (34%) during the six months preceding the interview (Figure 7).

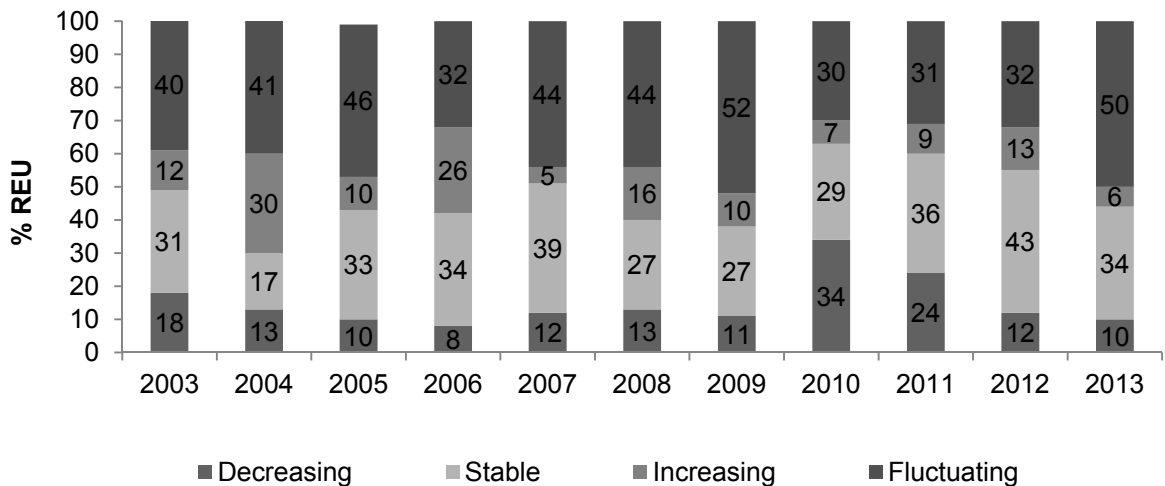
KE who commented on ecstasy indicated that the drug was currently low (n=3) or fluctuating (n=3) in purity. Several KE indicated that drugs sold as MDMA often contained other substances, particularly those sold in capsule form.

Figure 6: Reports of current ecstasy purity among REU who commented, 2003-2013



Source: EDRS interviews

Figure 7: Reports of change in ecstasy purity in the last six months among REU who commented, 2003-2013



Source: EDRS interviews

There is little objective data on the purity of phenethylamines (the class of drugs including ecstasy, or MDMA, and drugs such as MDA, MDEA and mescaline) in Tasmania, as only a proportion of seizures are analysed for purity by Tasmania Police. The median purity of seizures has ranged from 22.9% to 34.2% between 2001/02 and 2009/10 (see Table 33). There were no purity data reported in 2010/11 or 2011/12, and data for the 2012/13 reporting period were not available at the time of publication.

Table 33: Median purity of phenethylamine seizures 2001/02-2011/12

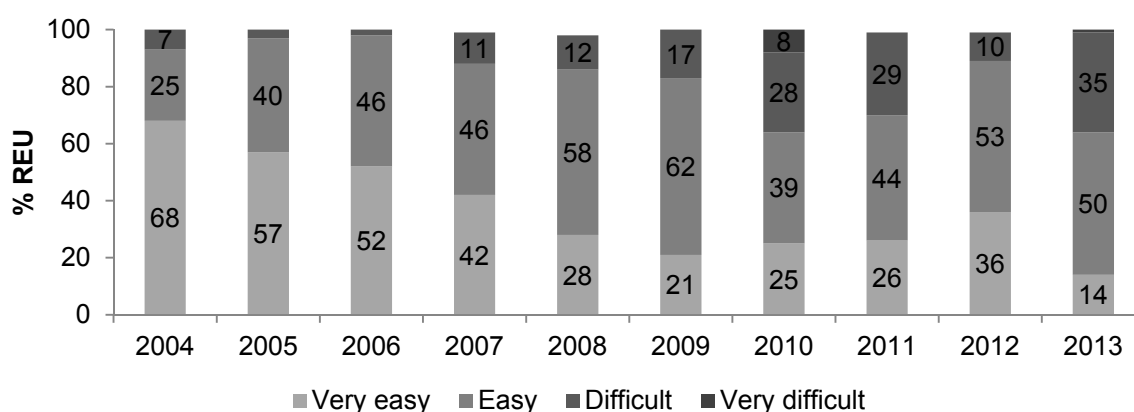
	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11	2011 /12
Median % Purity	22.9 n=1	28.5 n=3	26.0 n=33	-	-	27.1 n=4	24.6 n=3	-	34.2 n=1	-	-

Source: ABCI (2002); ACC (2003-2013)

5.1.3 Availability

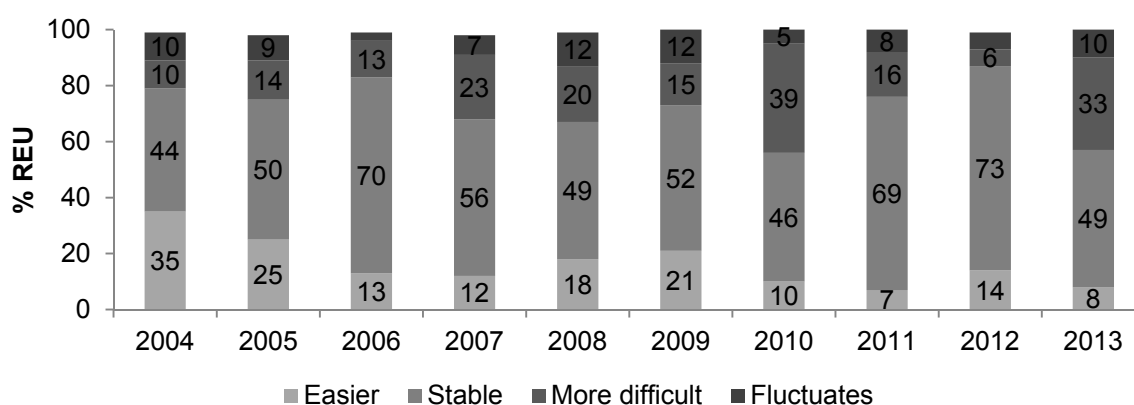
REU reported that the availability of ecstasy had remained stable (49%) or had become more difficult (33%) to obtain in the past six months (See Figure 9). The proportion reporting that ecstasy had recently become more difficult to obtain (33%, 95%CI 24-45) was significantly greater relative to 2012 (6%, 95%CI 3-12%), $\chi^2=19.9$, $p<.001$.

Figure 8: REU reports of current availability of ecstasy, 2004-2013



Source: EDRS interviews

Figure 9: REU reports of change in ecstasy availability in the last six months, 2004-2013



Source: EDRS interviews

The sample of REU was asked who they had last obtained ecstasy from and the location where they had last obtained the drug in the six months preceding the interview (Table 34). A large majority indicated that they last obtained ecstasy from friends (71%), most typically from a friend's home (32%), the respondent's own home (20%), a nightclub (11%) or a public bar (11%).

Table 34: REU reports of ecstasy last source and location in the preceding six months, 2009-2013

	2009	2010	2011	2012	2013
Person last purchased from	n=100	n=100	n=72	n=99	n=76
Friends (%)	80	73	76	65	71
Known dealers (%)	7	18	15	11	8
Acquaintances (%)	7	7	8	10	7
Workmates (%)	2	-	-	4	4
Unknown people (%)	1	2	-	6	7
Street/Mobile dealers (%)	3	-	-	-	-
Location last purchased ecstasy	n=99	n=100	n=72	n=99	n=76
Friend's home (%)	37	39	29	28	32
Dealer's home (%)	2	5	6	5	5
Home (%)	19	18	18	20	20
Nightclub (%)	21	13	14	7	11
Rave/doof/dance party	2	1	3	3	3
Private party (%)	2	3	3	10	5
Pub (%)	6	13	14	11	11
Street (%)	2	1	4	3	3
Agreed public location (%)	6	6	3	3	1
Work (%)	1	-	-	5	4
Acquaintance's house (%)	1	-	3	1	-

Source: EDRS interviews

5.1.4 Ecstasy markets and patterns of purchasing ecstasy

REU interviewed in 2013 reported purchasing ecstasy from a median of three people (range 1-6 people) in the preceding six months (Table 35). Three-fifths of the sample (60%) indicated that they had last purchased ecstasy for themselves and others, and almost two-fifths (38%) had last ecstasy only for themselves. A median of three tablets (range 1-10 tablets) had been purchased in this last transaction. Most commonly, ecstasy was purchased monthly or less frequently (51%) or fortnightly to monthly (39%) during this time

Table 35: Patterns of purchasing ecstasy in the last six months, 2005-2013

	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Median people purchased from (range)	4 1-25	4 1-30	3 1-15	4 1-15	3 1-20	3 1-10	3 1-10	3 1-30	3 1-6
Last purchase for (%)	n/a	n/a	n/a	n/a					
Didn't purchase					-	1	3	1	-
Self only					36	36	34	42	38
Self and others					61	60	62	57	60
Others only					3	3	1	-	3
No. times purchased (%)									
1-6	38	43	44	34	49	54	62	43	51
7-12	36	42	36	45	38	36	27	29	39
13-24	25	10	18	15	9	9	10	18	7
25 +	-	4	2	5	4	1	1	10	3
Median pills last purchased (range)	n/a	n/a	n/a	n/a	n/a	n/a	3 1-100	3 1-160	3 1-10

Source: EDRS interviews

5.2 Methamphetamine

Summary:

- The median last purchase price for one point (0.1 g) of methamphetamine powder was \$50 (range \$20-100), which is similar to 2012 but higher than years prior to this (\$35-40). The median last purchase price for one gram of methamphetamine powder (\$300) was also higher in 2012 and 2013 than the prices reported between 2009 and 2011 (\$250-255).
- Although based on a small sample size, the median last purchase price for one point of crystal methamphetamine was considerably higher at \$100, a finding corroborated by several KE (n=4)
- Methamphetamine powder was reported to be medium or high in purity and the proportion reporting that it was high in purity tended to be greater than 2012 (17%). This purity was reported to be stable (47%) or fluctuating (41%) during the previous six months.
- Two-thirds (66%) reported that powder was easy or very easy to obtain compared to a similar proportion in 2012 (53%), but much greater proportions over the eight years prior to 2012 (71-90%).
- Small sample sizes in relation to crystal and base and low levels of recent use among the current cohort both suggest low availability of these forms in 2013.

5.2.1 Price

REU were asked to indicate the last purchase price for the three major forms of methamphetamine (see Table 36). A greater number of respondents were able to report confidently on the price of methamphetamine powder relative to methamphetamine base and crystal methamphetamine. As such, prices reported for the latter two methamphetamine forms should be interpreted with caution.

The median last purchase price for one point (0.1 of a gram) of methamphetamine powder was \$50 (range \$25-100) which is similar to the median price of \$50 (range \$20-100) reported in 2012 and consistent with the reports of several KE (n=3). This price is higher than the median price of \$35 (range \$20-50) reported in 2011 and the median price of \$40 reported among previous samples. Although based on a small sample size, the median last purchase price for one point of crystal methamphetamine was considerably higher at \$100, a finding corroborated by several KE (n=4).

The last purchase price for one gram of methamphetamine powder was \$300 (range \$130-400) which is similar to 2012 (\$300, range \$100-350) but higher than the median of \$250-255 reported between 2009 and 2011.

Two-thirds (69%) of those who commented on recent changes in methamphetamine powder (Figure 10) indicated that the price had recently been stable. Few participants were able to comment on recent price changes in relation to base and crystal.

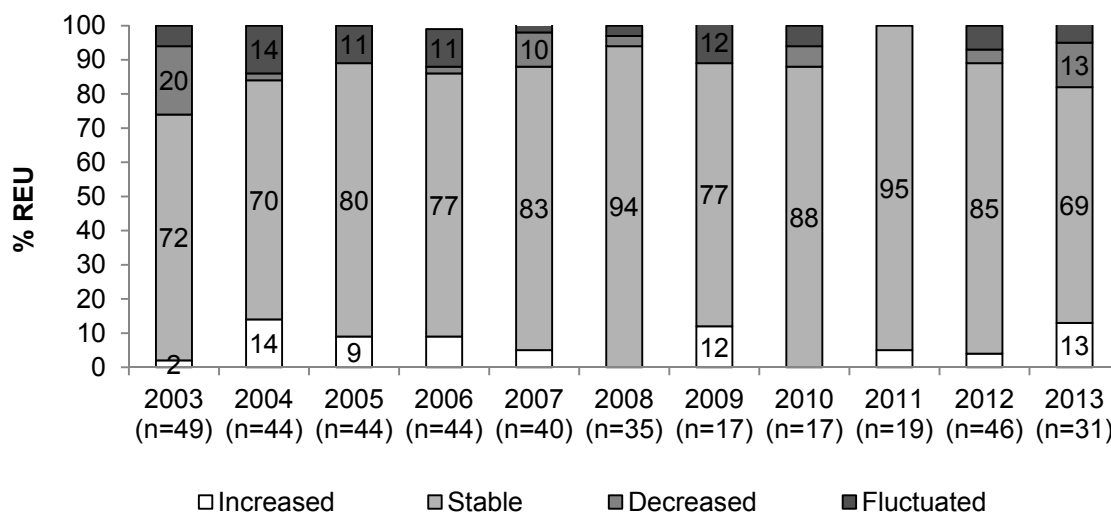
Table 36: Last purchase price of methamphetamine forms purchased by REU, 2005-2013

Median last price	2005	2006	2007	2008	2009	2010	2011	2012	2013
Powder									
Point (range)	\$40 25-50 n=36	\$40 30-50 n=27	\$40 30-60 n=23	\$40 25-50 n=20	\$40 20-60 n=16	\$40* 30-50 n=6	\$35* 20-50 n=9	\$50 20-100 n=31	\$50 25-100 n=10
Gram (range)	\$300 200-400 n=14	\$350 45-400 n=11	\$350 200-380 n=16	\$300 200-350 n=13	\$255 170-300 n=12	\$250 150-300 n=13	\$250* 100-300 n=9	\$300 100-350 n=16	\$300 130-400 n=12
Base									
Point (range)	\$45* 30-50 n=8	\$40 10-300 n=25	\$40 30-50 n=21	\$40* 35-50 n=9	\$60* 50-80 n=5	\$50* n=1	\$50* 50 n=2	\$50 20-100 n=10	-
Gram (range)	\$300* 250-400 n=3	\$350* 300-350 n=7	\$375* 350-400 n=4	\$300* 300-300 n=3	\$400* n=1	\$163* 25-300 n=2	\$150* n=1	\$300* 200-300 n=6	\$210* 120-300 n=2
Crystal									
Point (range)	\$50* 50-60 n=3	\$50* 40-50 n=8	\$45* 35-50 n=4	\$40* n=1	\$50* n=1	-	\$50* 50 n=2	\$60* 50-100 n=5	\$100* 100-100 n=5
Gram (range)	\$375* 350-400 n=2	\$150* n=1	\$300* n=1	\$300* 300-300 n=2	\$450* 300-600 n=2	-	\$275* 250-300 n=2	\$300* 80-300 n=3	-

Source: EDRS interviews

*n<10

Figure 10: Recent changes in price of methamphetamine powder purchased among REU who commented, 2003-2013



Source: EDRS interviews

Tasmania Police Drug Investigation Services gather regular information regarding current prices of illicit drugs. This data has been provided to the authors through the ABCI, now the ACC (Table 37). During the 2011/12 financial year, Tasmania Police reported methamphetamine (non-crystal) prices as \$50-80 per point (0.1 g) and \$300 per gram (Table 36). The price for crystal methamphetamine was reported to be higher at \$80-100 for a point. Data for the 2012/13 reporting period were unavailable at the time of publication.

Table 37: Methamphetamine prices in Tasmania reported by Tasmania Police Drug Investigation Services, 2006/07-2011/12

Non-crystal form	Point (~0.1 g)	Full gram (1.0 g)	Ounce (28 g)
2006/07	\$50	\$270-380	\$4,000-5,000
2007/08	\$30-50	\$200-300	\$5,000-8,000
2008/09	\$50	\$300	-
2009/10	-	-	-
2010/11	\$50-80	\$300-400	\$4,000-5000
2011/12	\$50-70	\$300	\$4,000-5,000
Crystal form			
2006/07	-	-	-
2007/08	-	-	-
2008/09	\$50	\$300-	-
2009/10	-	-	-
2010/11	\$50	\$400	-
2011/12	\$80-100	-	-

Source: ACC (2005-2013)

Note: Data for 2012/13 financial year were not available at the time of publication; prior to 2006/07 amphetamine/methamphetamine (all forms) were reported in one category

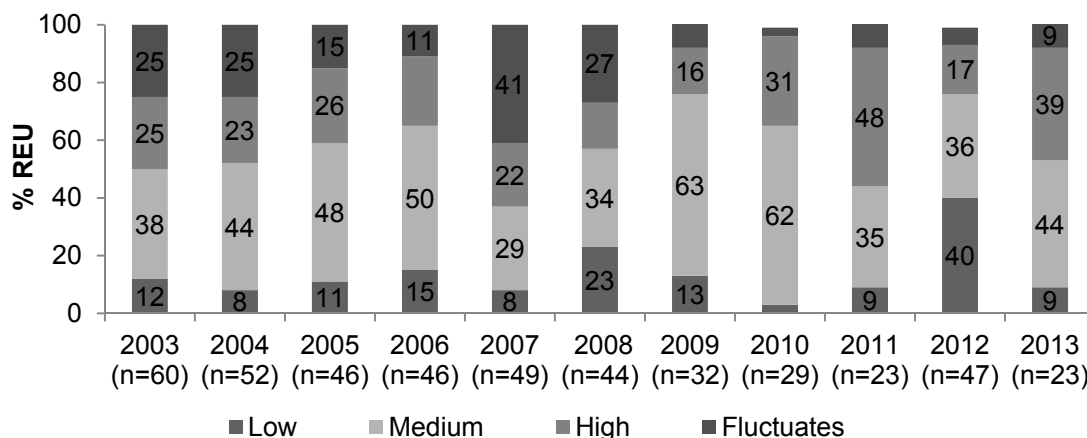
5.2.2 Purity

Due to the small number of REU who commented on methamphetamine base and crystal methamphetamine, trends in purity are examined over time for methamphetamine powder only.

The majority of REU who commented in 2013 indicated that methamphetamine powder was medium (44%) or high (39%) in purity (Figure 11). The proportion reporting that methamphetamine powder was high in purity tended to be greater in 2013 (39%, 95%CI 22-59) when compared to the 2012 (17%, 95%CI 9-30), $\chi^2=2.99$, $p=.08$, but was similar to the proportion in 2011 (48%, 95%CI 29-67). While 47% of respondents indicated that the purity of methamphetamine powder had remained stable in the last six months, 41% reported that purity had been fluctuating (Figure 12).

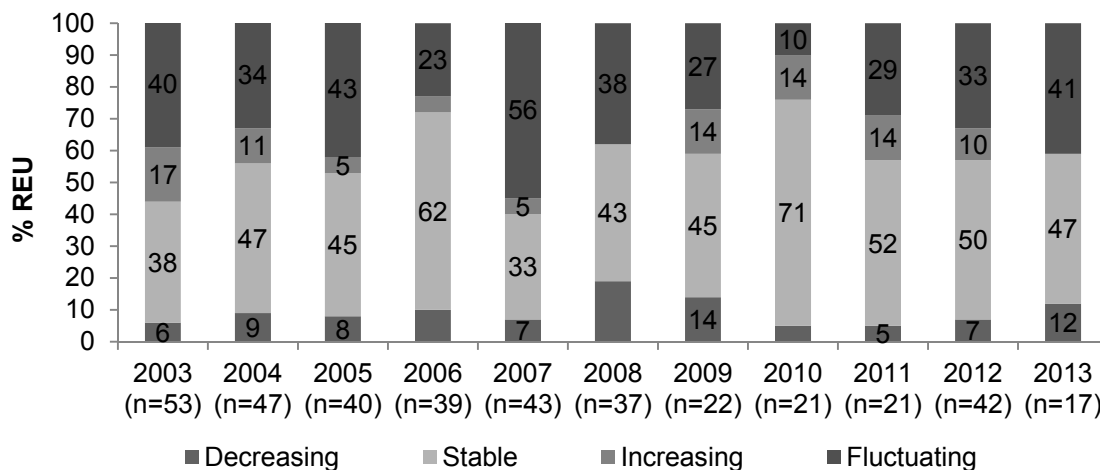
KE who commented on methamphetamine powder indicated that it was currently low in purity (n=4), while several noted that crystal methamphetamine was currently high in purity (n=3).

Figure 11: Reports of methamphetamine powder purity among REU who commented, 2003-2013



Source: EDRS interviews

Figure 12: Reports of changes in methamphetamine powder purity in the past six months among REU who commented, 2003-2013



Source: EDRS interviews

Table 38 shows purity of methamphetamine seizures received at Tasmanian Police analytical laboratories for the 2000/01 to 2011/12 financial years. Data for the 2012/13 reporting period were not available at the time of publication. All amphetamine-type stimulants tested for purity between 2003/04 and 2011/12 were methamphetamine rather than amphetamine. Drugs seized by Tasmania Police are not routinely tested for purity, thus data for some reporting periods should be interpreted with caution due to small sample sizes and non-random selection of seizures for analysis. In the 2011/12 reporting period, the total median purity of analysed methamphetamine seizures was relatively low (7.9%), and consistent with the median purity of seizures analysed in the previous six reporting periods (9.3%-4.4%). While it is difficult to make inferences from small numbers of analysed seizures, the upper-bound purity range of analysed seizures was greater in 2011/12 (71.9%) relative to the seven years prior to this (14.1-58.7%).

Table 38: Purity of seizures of methamphetamine made by Tasmania Police received for laboratory testing, 2001/02-2011/12

	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11	2011/ 2012
≤2 g											
n	20	30	9	10	6	15	7	11	-	3	2
Median % purity	26.6	12.7	25.6	32.3	15	24.6	7.6	12.6		33.6	5.2
> 2 g											
n	28	13	14	-	3	23	32	9	5	50	21
Median % purity	19.2	11.2	9.8	-	6.9	6.5	8.5	7.8	4.4	9.3	71.9
Total											
n	48	43	23	10	9	38	39	20	5	53	23
Median % purity	22.2	12.2	16.9	32.3	13	12.4	8.5	9.2	4.4	9.3	7.9
Range	0.1-70.6	1.9-78.5	2.4-80.5	18.5-35.5	1.7-58.7	2.4-27.7	1.9-39.5	3.2-14.1	1.3-6.7	1.8-36.6	1.7-71.9

Source: ABCI (2002); ACC (2003-2013)

Note: No seizures made by the Australian Federal Police in the state were analysed during these reporting periods. Data for the 2012/13 period were unavailable at time of publication

5.2.3 Availability

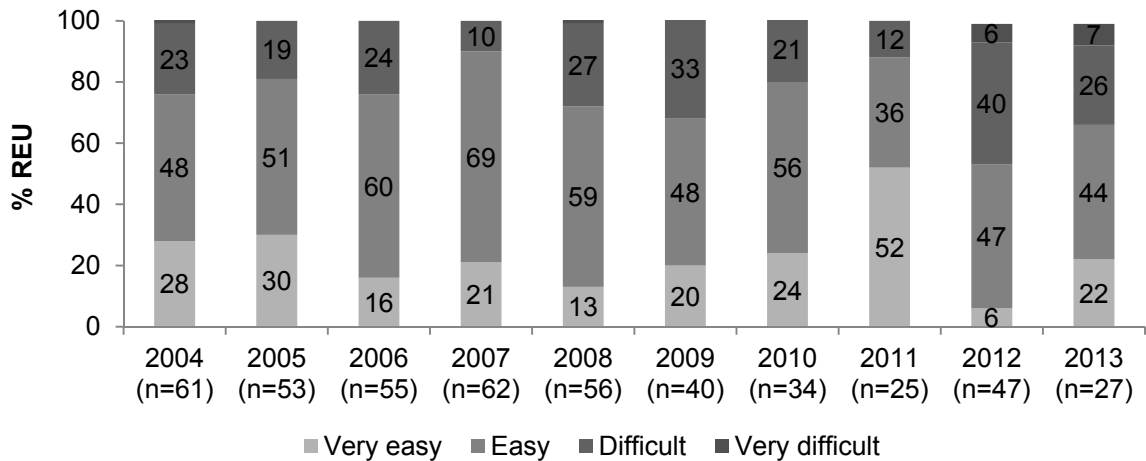
Few REU were able to comment on the availability and changes in availability for methamphetamine base and crystal methamphetamine. Thus availability over time is examined for methamphetamine powder only.

The majority of REU reported that methamphetamine powder was currently 'easy' (44%) or 'very easy' (22%) to obtain and 26% reported that it was currently 'difficult' to obtain (Figure 13). Two-thirds (64%) reported that availability had remained stable during the last six months (Figure 14).

Figure 15 shows the proportion of the REU sample who indicated that each methamphetamine form was very easy or easy to obtain across the ten 10 years of the study. In 2013, two-thirds (66%) reported that powder was easy or very easy to obtain compared to a similar proportion in 2012 (53%), but much greater proportions over the eight years prior to 2012 (71-90%).

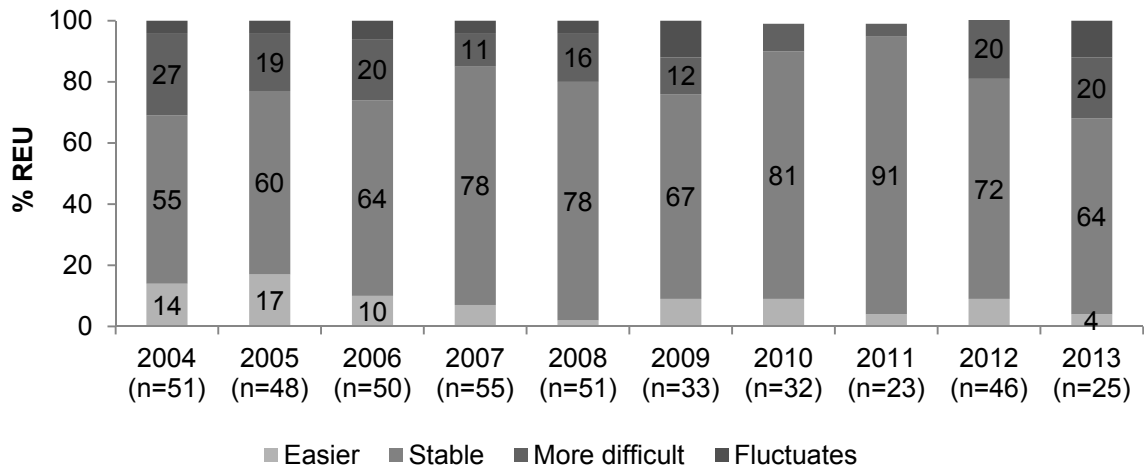
Among KE who commented on the forms of methamphetamine currently available in Hobart, several noted recent increases in the use (n=3) and availability (n=5) of methamphetamine powder. Similarly, recent increases were noted in the use (n=4) and availability (n=7) of methamphetamine powder.

Figure 13: REU reports of current availability of methamphetamine powder, 2004-2013



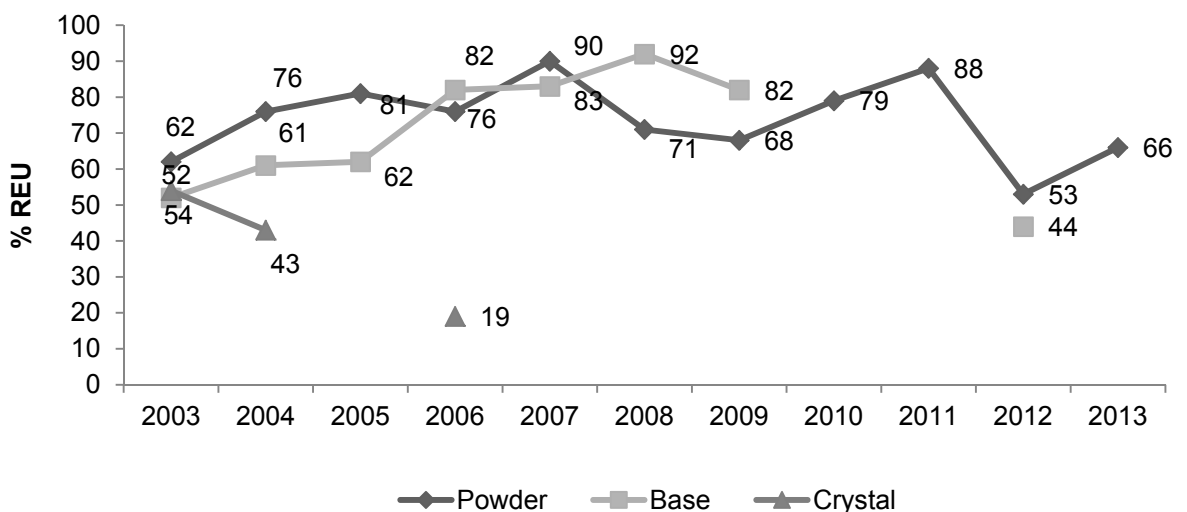
Source: EDRS interviews

Figure 14: REU reports of change in methamphetamine powder availability in the last six months, 2004-2013



Source: EDRS interviews

Figure 15: Proportion of REU reporting various forms of methamphetamine as very easy or easy to obtain in the six months preceding interview, 2003-2013



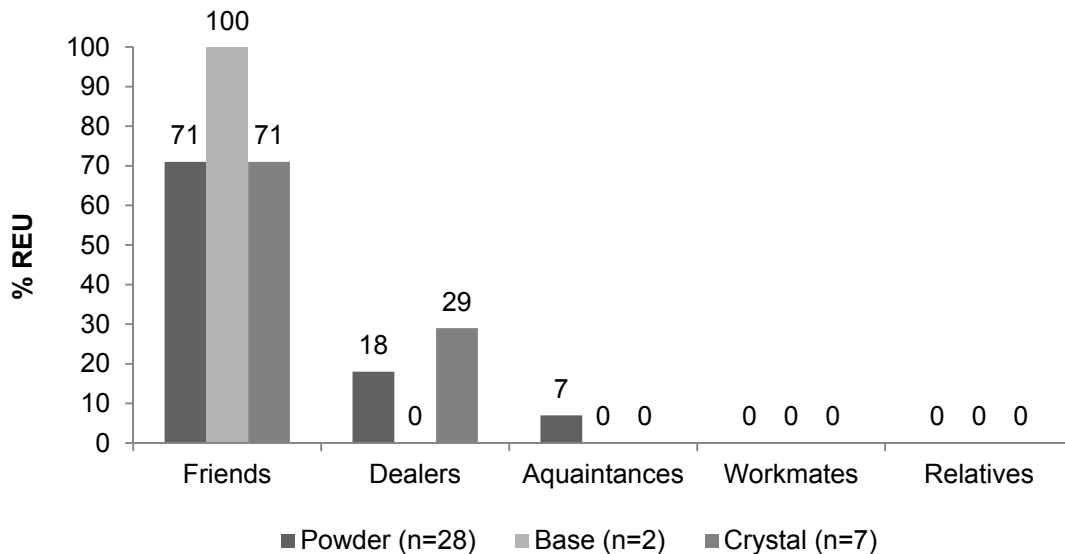
Source: EDRS interviews

Note: Data not reported where n<10

REU were asked who they had obtained each methamphetamine form from on the last occasion of use in the previous six months, and at which locations they had obtained the drug (see Figure 16 and Figure 17 respectively). These data are based on small sample sizes for methamphetamine base and crystal methamphetamine and should be interpreted with caution.

For all forms of methamphetamine, participants were most likely to have last obtained the drug from friends (71% powder, 100% base, 71% crystal) (Figure 16). The most common locations for the last purchase of methamphetamine powder (Figure 17) were a friend's home (39%), the respondent's own home (29%), or a nightclub (11%).

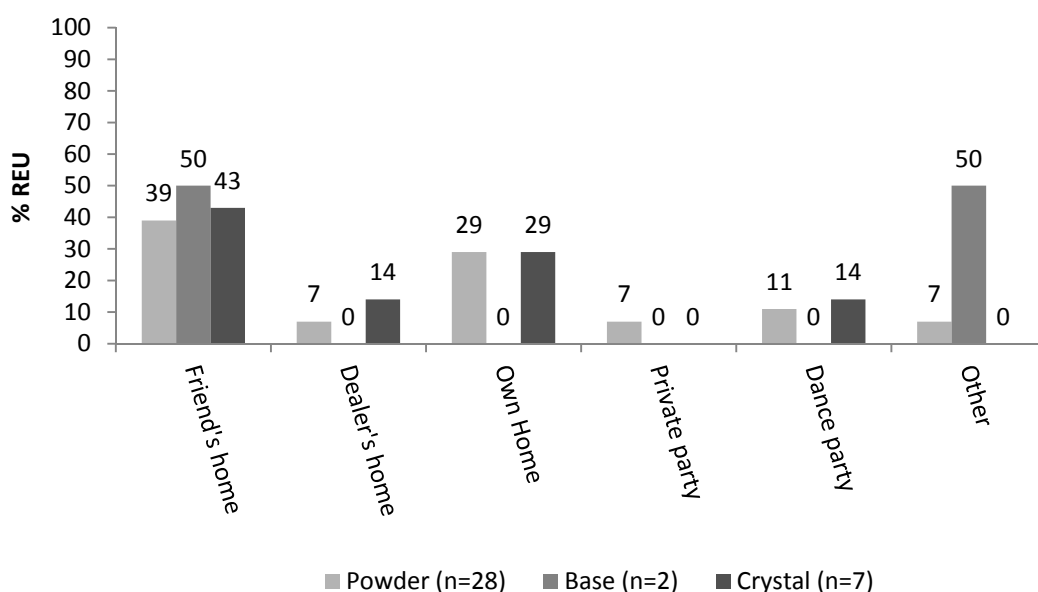
Figure 16: People from whom methamphetamine powder, base and crystal were last purchased in the preceding six months, 2013



Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

Figure 17: Locations where methamphetamine powder, base and crystal were last purchased in the preceding six months, 2013



Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

5.3 Cocaine

Summary:

- Consistent with the relatively low use of cocaine among the current cohort, few REU were able to comment on the price, purity and availability of the drug and the results should be interpreted with caution.
- The median last purchase price for one gram of cocaine was stable at \$300 (range \$280-350) and no recent price trends were noted.
- Cocaine was reported to be low (43%), medium (29%) or high (29%) in purity and this purity was reported to have remained 'stable' (80%) in the last six months.
- The majority of those who commented on the availability of cocaine indicated that it was currently 'difficult' (38%) or 'very difficult' (50%) to obtain, and availability was reported to have remained stable in the last six months.

5.3.1 Price

Table 39 shows median prices and price variations reported by REU for cocaine between 2004 and 2013. These price estimates are typically based on small sample sizes and should be interpreted with caution. In 2013, the median last purchase price for one gram of cocaine was \$300 (range \$280-350) which is the same as the median price reported in 2011 and 2012. Two-thirds (67%) indicated that the price had remained stable in the last six months.

Table 39: Last purchase price of cocaine and perceptions of price changes in the last six months among REU who commented, 2005-2013

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Median last price									
Point (range)	\$65* 60-70	\$45* 40-50	\$30* 20-60	\$90* n=1	\$100* n=1	\$35* n=1	-	\$80* 40-120	-
Gram (range)	\$350* 180-400	\$310 250-400	\$320* 250-380	\$350 200-450	\$300* 300-600	\$350 80-350	\$300 200-400	\$300* 250-350	\$300* 280-350
Price change (%)	n=4	n=11	n=12	n=17	n=9	n=17	n=13	n=10	n=3
Increased	25	-	25	18	33	6	15	10	-
Stable	75	73	25	59	56	71	77	60	67
Decreased	-	27	17	24	11	12	-	20	-
Fluctuated	-	-	33	-	-	12	8	10	33

Source: EDRS interviews

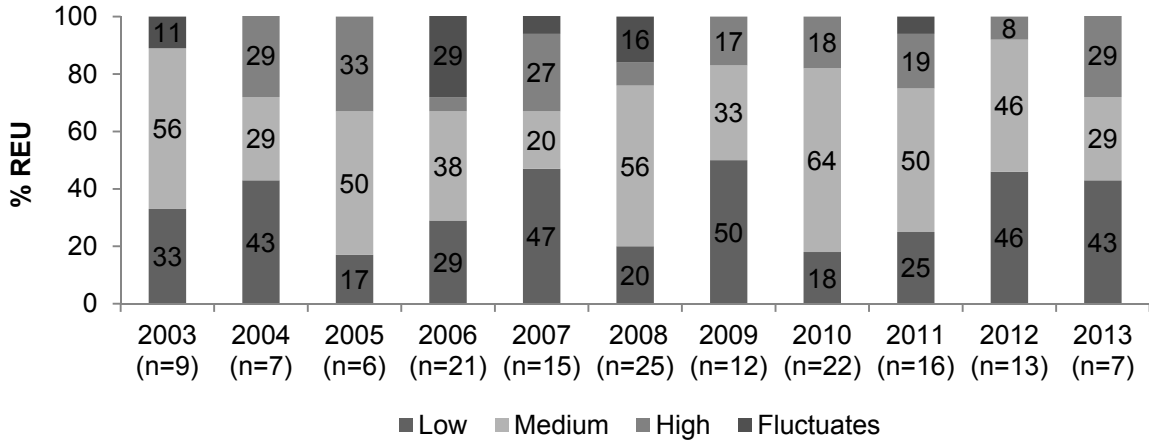
* n<10

Cocaine prices were reported by Tasmania Police for the 2009/10 ACC report (ACC, 2011). The price for one gram of cocaine in Tasmania was reported to be \$300-400, which is relatively consistent with price reported by REU in 2011 and 2012. In the 2011/12 period the ACC reported the price for one gram of cocaine in Tasmania to be \$350, and one ounce to be \$7,000-10,000 (ACC, 2013), which is consistent with the price reported by REU in 2011-2013. There were no price data for cocaine in the 2010/11 report and data for the 2012/13 reporting period were unavailable at the time of publication.

5.3.2 Purity

Purity estimates for cocaine are based on small sample sizes and should be interpreted with caution. REU were asked about the current purity of cocaine (Figure 18) and any changes in purity in the last six months (Figure 19). Those who commented in 2013 indicated that cocaine was currently low (43%), medium (29%) or high (29%) in purity. Those who commented on changes in purity in the last six months indicated that it had remained stable (80%) or had increased during this time (20%) (Figure 19).

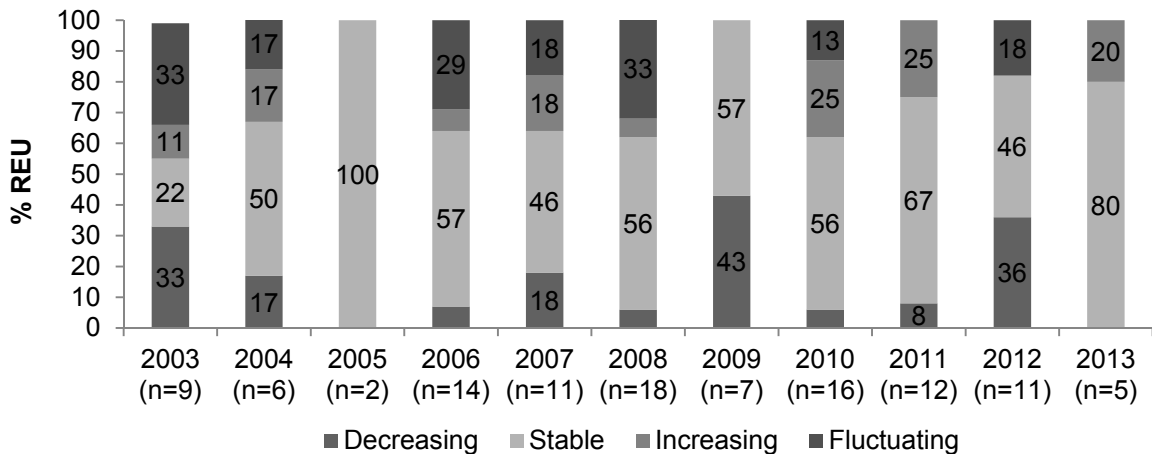
Figure 18: REU reports of current purity of cocaine, 2003-2013



Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

Figure 19: REU reports of changes in cocaine purity in the past six months, 2003-2013



Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

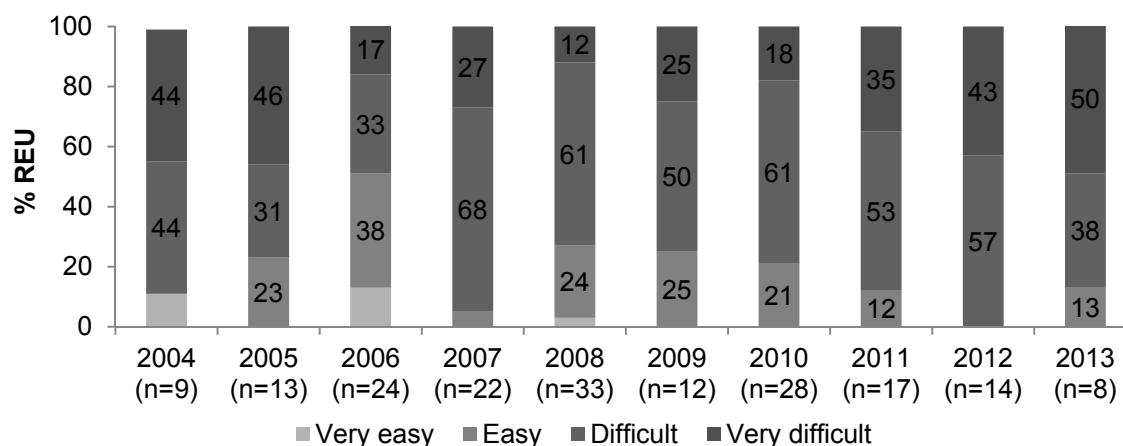
One sample of cocaine seized within the state by Tasmanian Police was reported in the 2011/12 period by the ACC (ACC, 2013). This was an amount greater than two grams and was 29.8% purity. Prior to this, one sample of cocaine was reported in the 2009/10 period (ACC, 2011). This was an amount of greater than two grams and was 71.7% purity. Data for the 2012/13 reporting period was unavailable at the time of publication.

5.3.3 Availability

Availability estimates for cocaine are based on small sample sizes and should be interpreted with caution. Those who commented on the current availability of cocaine (see Figure 20) indicated that cocaine was currently difficult (38%) or very difficult (50%) to obtain and availability was reported to have remained stable (100%) during the preceding six months (Figure 21). Similarly, most KE who commented on cocaine (n=10) indicated that the use and availability of the drug was currently low in Hobart.

Cocaine had last been purchased from friends (80%), dealers (10%) or had been 'used but not purchased' (10%), and had been last obtained from a friend's home (60%), nightclub (10%), private party (10%), or a live music event (10%) (Table 40).

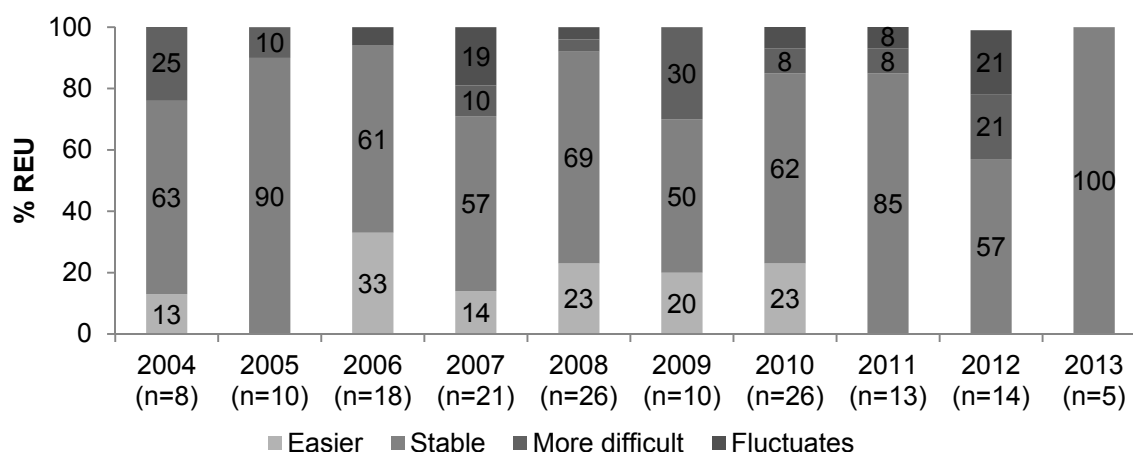
Figure 20: REU reports of current availability of cocaine, 2004-2013



Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

Figure 21: REU reports of change in cocaine availability in the last six months, 2004-2013



Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

Table 40: REU reports of last cocaine source in the preceding six months, 2009-2013

Cocaine	2009	2010	2011	2012	2013
Person last purchased from	n=11	n=23	n=19	n=16	n=10
Used not purchased (%)	-	-	11	44	10
Friends (%)	73	78	47	31	80
Dealers (%)	18	17	26	6	10
Acquaintances (%)	9	4	5	6	-
Unknown dealers (%)	-	-	5	-	-
Work mates (%)	-	-	5	13	-
Location last purchased	n=11	n=23	n=19	n=16	n=10
Used not purchased (%)	-	-	11	44	10
Home (%)	36	13	5	-	-
Friend's home (%)	55	48	37	13	60
Dealers' home (%)	9	9	5	-	-
Rave/dance party (%)	-	-	-	-	-
Nightclub (%)	-	4	-	6	10
Public bar (%)	-	17	21	19	-
Private party (%)	-	4	-	-	10
Agreed public location (%)	-	-	5	-	-
Live music event (%)	-	-	5	-	10
Acquaintance's home (%)	-	4	-	6	-
Work (%)	-	-	-	13	-
Other (%)	-	-	10	-	-

Source: EDRS interviews

5.4 LSD

Summary:

- The median last price for one tab/drop of LSD in 2012 was \$20 (range \$5-25) and no recent price trends were noted.
- The purity of LSD was considered by REU to be high (39%) or medium (30%) and to have remained stable or fluctuated during the last six months.
- A large majority of those commenting indicated that LSD was very easy (17%) or easy (54%) to obtain and that availability had recently been stable (65%).
- LSD was typically last obtained from friends and was most commonly last obtained from private residences or at a rave/doof/dance party.

5.4.1 Price

The last purchase price for one tab of LSD and perceived price changes over the six months preceding the interview are shown in Table 41. The median last purchase price for one tab of LSD was \$20 (range \$10-30) in 2013, which is consistent with the median price of \$20 reported in 2011 and 2012. Two-thirds (67%) of those who commented on the price of LSD indicated that it had remained stable during the six months preceding the interview.

Table 41: Prices of LSD purchased by REU, 2005-2013

LSD	2005	2006	2007	2008	2009	2010	2011	2012	2013
Median last price	n=30	n=29	n=14	n=27	n=27	n=18	n=26	n=28	n=25
Tab (range)	\$25 10-40	\$20 10-50	\$15 10-25	\$20 12-60	\$20 10-45	\$25 10-25	\$20 10-35	\$20 5-25	\$20 10-30
Price change (%)	n=31	n=30	n=19	n=28	n=26	n=21	n=29	n=34	n=21
Increased	13	10	11	14	-	14	14	6	14
Stable	68	53	74	68	77	81	79	82	67
Decreased	10	13	16	11	12	-	3	6	10
Fluctuated	10	23	-	7	12	5	3	6	10

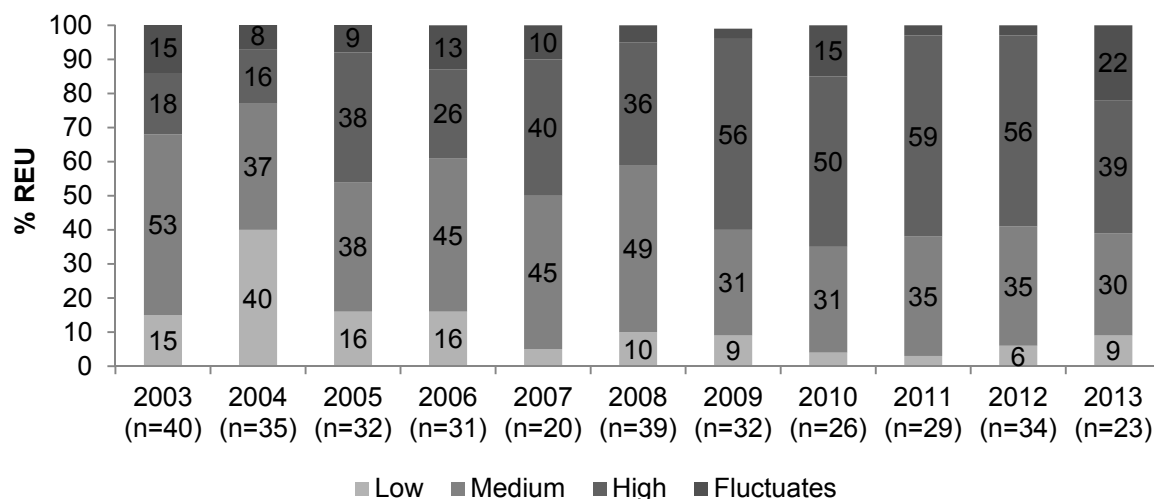
Source: EDRS interviews

During the 2011/12 period, Tasmania Police reported a price of \$20 for one tab of LSD which is consistent with the price reported by REU between 2011 and 2013 (ACC, 2013). Data for the 2012/13 reporting period were unavailable at the time of publication.

5.4.2 Purity

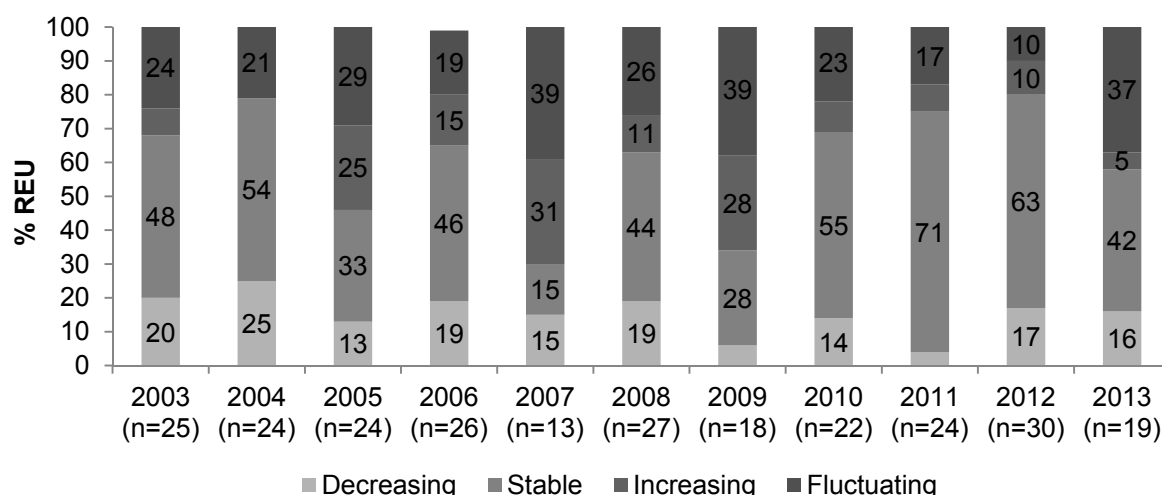
LSD was typically reported to be high (39%) or medium (30%) in purity (Figure 22). Around two-fifths (42%) reported that this purity had remained stable during the six months preceding the interview and one-third (37%) indicated that purity had fluctuated (Figure 23).

Figure 22: Current purity of LSD, 2003-2013



Source: EDRS interviews

Figure 23: Recent change in purity of LSD, 2003-2013



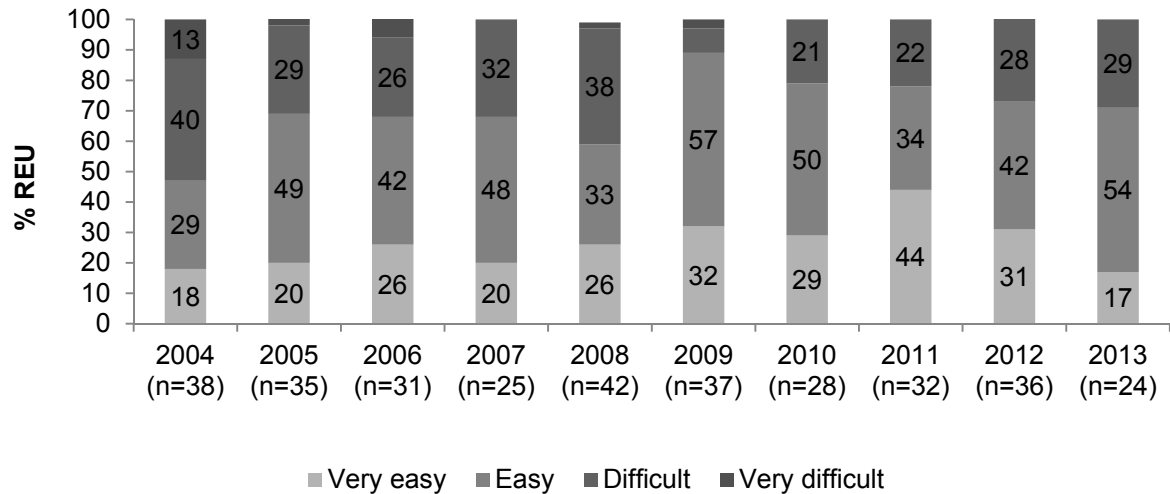
Source: EDRS interviews

5.4.3 Availability

A large majority of those who commented in 2013 reported that LSD was currently very easy (17%) or easy (54%) to obtain (see Figure 24), with the majority (65%) of those who commented indicating that the availability of LSD had recently remained stable (Figure 25).

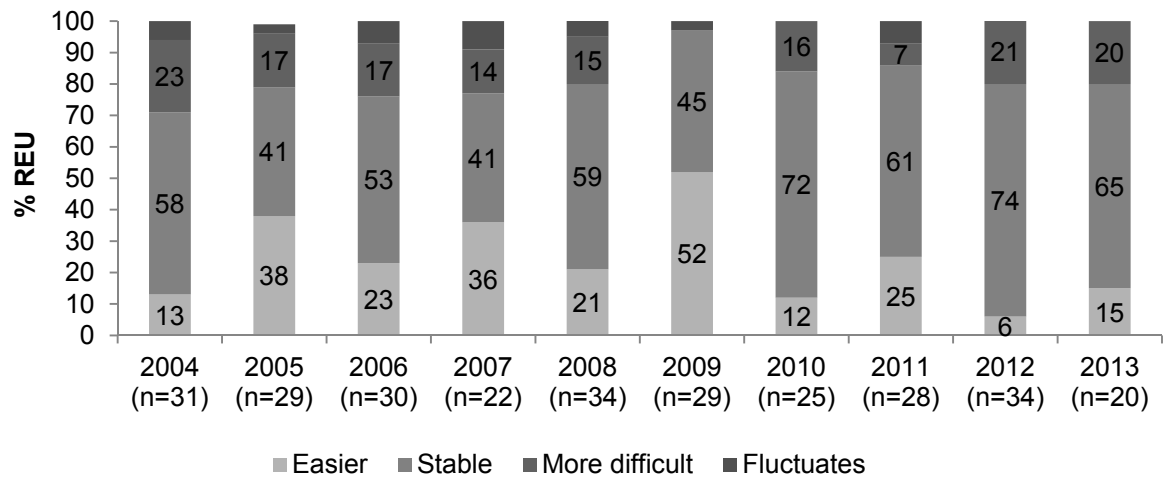
On the last occasion, LSD had most commonly been obtained from friends (57%) or dealers (29%) at either private residences (21% friend's home, 11% own home) or at a rave/doof/dance party (21%) (Table 42).

Figure 24: REU reports of current availability of LSD, 2004-2013



Source: EDRS interviews

Figure 25: REU reports of change in LSD availability in the last six months, 2004-2013



Source: EDRS interviews

Table 42: REU reports of availability of LSD in the preceding six months, 2009-2013

LSD	2009	2010	2011	2012	2013
Person last purchased from	n=30	n=23	n=27	n=26	n=28
Used not purchased (%)	6	-	-	-	4
Friends (%)	77	78	74	77	57
Dealers (%)	7	9	11	8	29
Workmates (%)	-	-	-	4	-
Acquaintances (%)	7	13	11	4	11
Unknown persons (%)	3	-	4-	4	-
Location last purchased	n=30	n=23	n=27	n=26	n=28
Used not purchased (%)	3	-	-	-	4
Home (%)	30	17	26	19	11
Friend's home (%)	27	39	33	31	21
Dealer's home (%)	7	4	-	4	11
Rave/doof/dance party (%)	13	9	-	31	21
Nightclub (%)	10	9	7	4	4
Pub (%)	-	-	4	-	11
Agreed public location (%)	-	13	-	-	4
Private party (%)	10	4	4	4	4
Acquaintance's home (%)	-	-	7	-	-
Live music event (%)	-	4	11	-	11
Work (%)	-	-	-	4	-
Other (%)	-	-	7	4	-

Source: EDRS interviews

5.5 Cannabis

Summary:

- The median last purchase price for one ounce of hydroponically-grown ('hydro') cannabis was \$280 (range \$120-350), compared to \$300 (range \$150-350) in 2012. The median last purchase price for one ounce of bush grown ('bush') cannabis was \$200 (range \$150-280) compared to \$250 in 2012 (range \$70-320). Prices per quarter ounce were also lower in 2013 compared to 2012 for both hydro (\$80 vs. \$90) and bush (\$65 vs. \$70).
- The potency of hydro was reported to be high (44%) and the potency of bush was reported to be medium (51%) with no recent changes noted.
- Both bush and hydro were reported to be easy or very easy to obtain, and this level of availability was generally perceived to have remained stable during the six months preceding the interview.

5.5.1 Price

REU reported last purchase prices for both hydroponically-grown (hydro) cannabis (Table 43) and bush-grown (bush) cannabis (Tables 43 and 44). Price estimates which are based on small sample sizes ($n < 10$) should be interpreted with caution. The median last purchase price for one ounce (28 grams) of hydro was \$280 (range \$120-350) compared to \$200 (range \$150-280) for bush. The median last purchase price for a quarter of an ounce (seven grams) was \$80 (range \$60-100) for hydro and \$65 (range \$50-90) for bush. The median last purchase weight for one \$25 bag of hydro was 1.3 grams (range .25-2.7 g), compared to a median of one gram (range 1-2 g) for bush. A majority of those who commented on recent price changes indicated that the price of hydro (87%) and bush (90%) had recently remained stable.

Table 43: Price and weights of hydro cannabis purchased by REU, 2006-2013

Last purchase price	2006	2007	2008	2009	2010	2011	2012	2013
One gram (range)	\$15* 10-25	\$25* 25-25	\$15* 10-20	\$20* 15-25	\$15* n=1	-	\$20* 10-25	\$10* 10-25
1/4 ounce (range)	\$85	\$80	\$90	\$80	\$90	\$70*	\$90	\$80
1/2 ounce (range)	70-100	70-90	80-270	25-110	75-100	50-100	25-190	60-100
One ounce (range)	\$155* 140- 180	\$145* 125- 180	\$180* 170- 180	\$150 50- 300	\$180* 170- 180	\$163* 125- 200	\$155* 150- 250	\$150* 75- 200
	\$250 200- 300	\$250 230- 300	\$250 250- 350	\$280 100- 350	\$275 250- 350	\$287* 225- 350	\$300 150- 350	\$280 120- 350
Grams per \$25 bag (range)	n/a	1.55* 1.5-1.6	1.6* 1.3-2	1.4 1-2	1.6 1.2-2	1.75 1.1-2.5	1.5 1.2-2.5	1.3* .25-2.7
Grams per \$50 bag (range)		-	3.1 2.5-4	3 2-3.5	3.5* 3-7	3* 2.5-5	4* 3.5-5	3* 2-5.5
Price change	n=48	n=30	n=34	n=39	n=36	n=7	n=48	n=46
Increased (%)	4	17	24	15	17	-	8	7
Stable (%)	81	67	53	74	72	100	85	87
Decreased (%)	6	3	9	3	3	-	-	2
Fluctuated (%)	8	13	15	8	8	-	6	4

Source: EDRS interviews

* $n < 10$

Table 44: Price and weights of bush cannabis purchased by REU, 2006-2013

Last purchase price	2006	2007	2008	2009	2010	2011	2012	2013
One gram (range)	\$15* 10-25	\$10* 10-10	\$15* 10-20	\$15* 10-25	-	\$10*	\$15* 10-25	\$20* 15-25
1/4 ounce (range)	\$65	\$60	\$70	\$67.50	\$70*	\$70*	\$70	\$65
1/2 ounce (range)	40-80	50-85	35-80	50-90	65-90		15-150	50-90
One ounce (range)	\$100* 70- 150	\$100* 100- 120	\$150* 150- 150	\$115* 50- 140	\$125* 80- 160	\$125*	\$125* 100- 260	\$130* 70- 150
	\$200 50- 350	\$190 150- 260	\$200* 180- 250	\$225 150- 250	\$235* 200- 300	\$225*	\$250 70- 320	\$200 150- 280
Grams per \$25 (range)	n/a	1.6* 1.5-1.7	1.8 * 1.3-2	1.5* 1-3	1.7* 1.5-2.5	2.25* 1.5-3	2* 1.5-2.3	1* 1-2
Grams per \$50 (range)		-	3.6* 2.5-4.5	4 2-5	3.5* 3.4-10	3.5* 3-5	5* n=1	3* 3-7
Price change	n=53	n=32	n=27	n=35	n=30	n=8	n=46	n=39
Increased (%)	-	-	11	9	7	-	2	-
Stable (%)	81	88	67	83	73	100	83	90
Decreased (%)	8	13	7	6	20	-	11	8
Fluctuated (%)	11	-	15	3	7	-	4	3

Source: EDRS interviews

*n<10

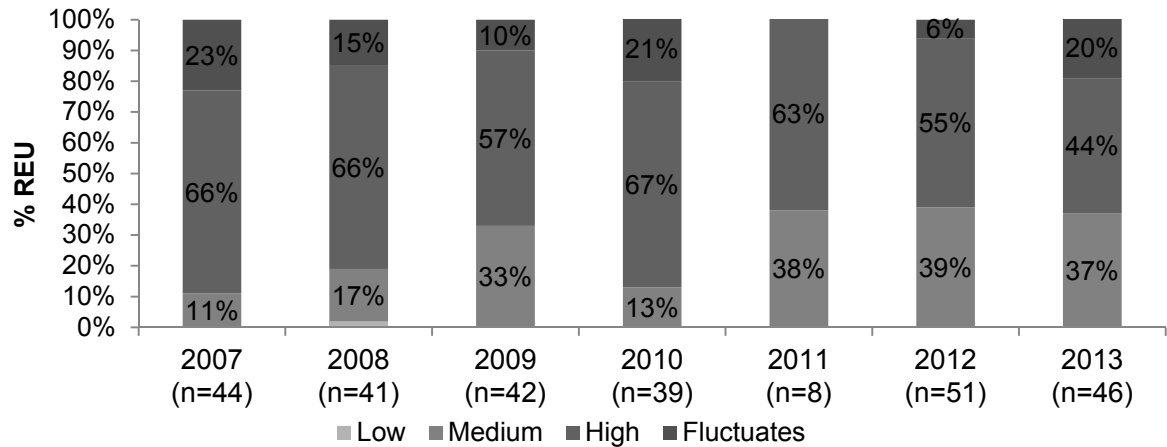
The last purchase price for a gram of hash was reported to be \$21 (range 10-30, n=4).

In 2011/12 Tasmania Police reported that the price for one deal (approximately one gram) of both hydro and bush cannabis was \$25 and the price for one ounce was reported to be \$200-300 for bush cannabis and \$300 for hydro cannabis (ACC, 2013). Data for the 2012/13 financial year were unavailable at the time of publication.

5.5.2 Potency

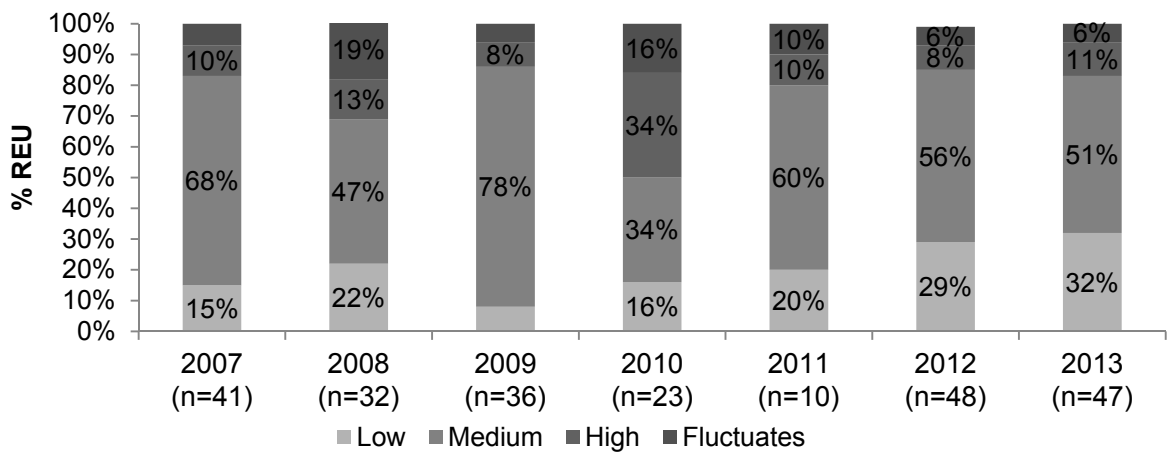
Participants were asked to comment on the current potency of hydroponic (Figure 26) and bush cannabis (Figure 27) and changes in potency during the six months preceding the interview (Figure 28). Hydroponically-grown cannabis was reported to be currently high (44%) or medium (37%) in potency, while bush was reported to be medium (51%) or low (32%) in potency. The majority of those who commented indicated that the potency of both bush (64%) and hydro (55%) had remained stable during the preceding six months.

Figure 26: Current potency of hydro cannabis, 2007-2013



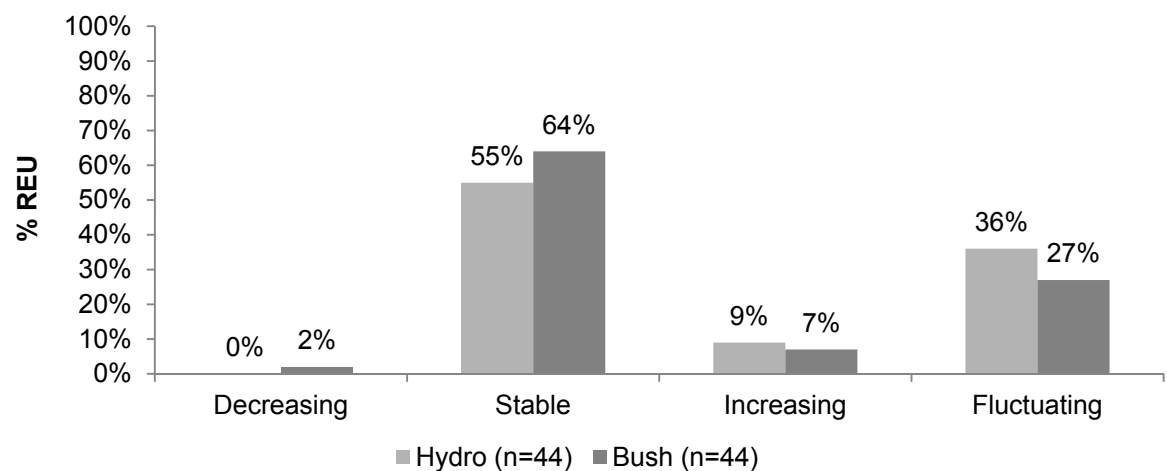
Source: EDRS interviews

Figure 27: Current potency of bush cannabis, 2007-2013



Source: EDRS interviews

Figure 28: Recent change in potency of cannabis, 2013

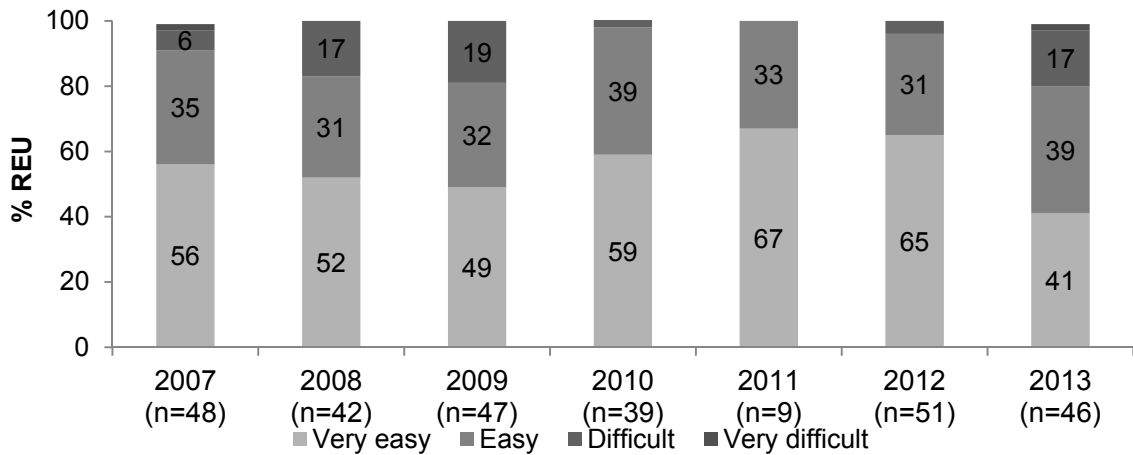


Source: EDRS interviews

5.5.3 Availability

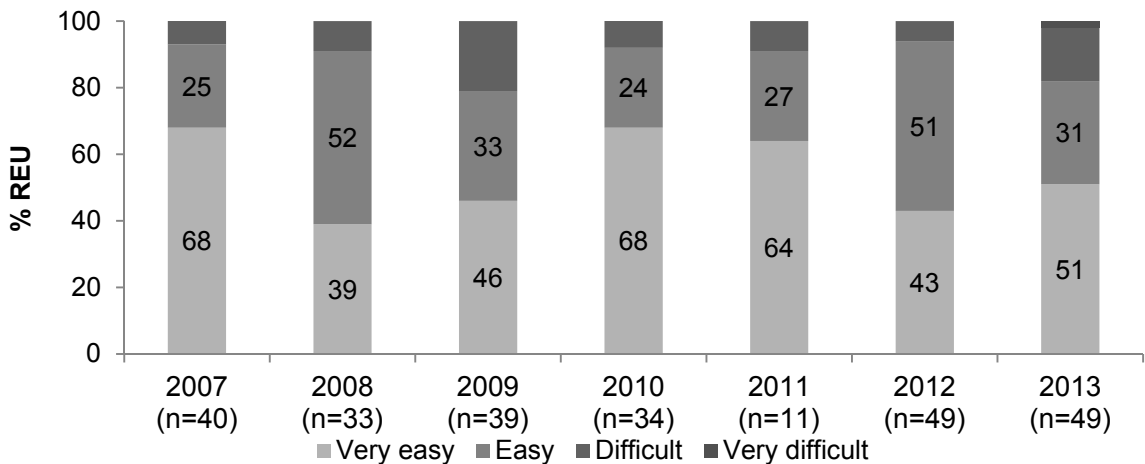
REU were asked to comment on the current availability of hydro and bush cannabis (Figures 29 and 30 respectively) and changes in this availability (Figures 31 and 32 respectively) during the six months preceding the interview. A majority of those that commented on the current availability of hydro indicated that it was currently very easy (41%) or easy (39%) to obtain, and that this availability had been stable (64%) during the preceding six months. Similarly, bush was reported to be very easy (51%) or easy (31%) to obtain with availability stable (71%) during the last six months.

Figure 29: REU reports of current availability of hydro cannabis, 2007-2013



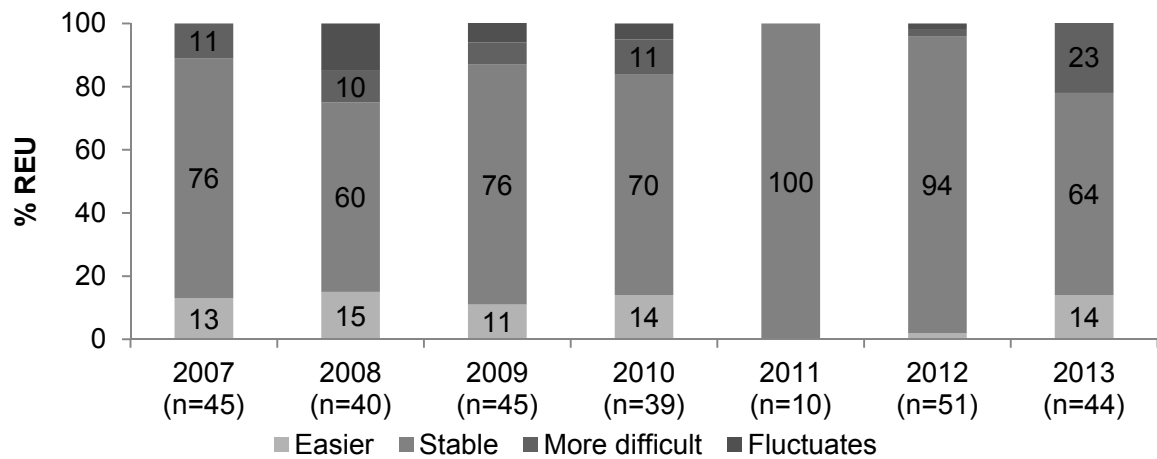
Source: EDRS interviews

Figure 30: REU reports of current availability of bush cannabis, 2007-2013



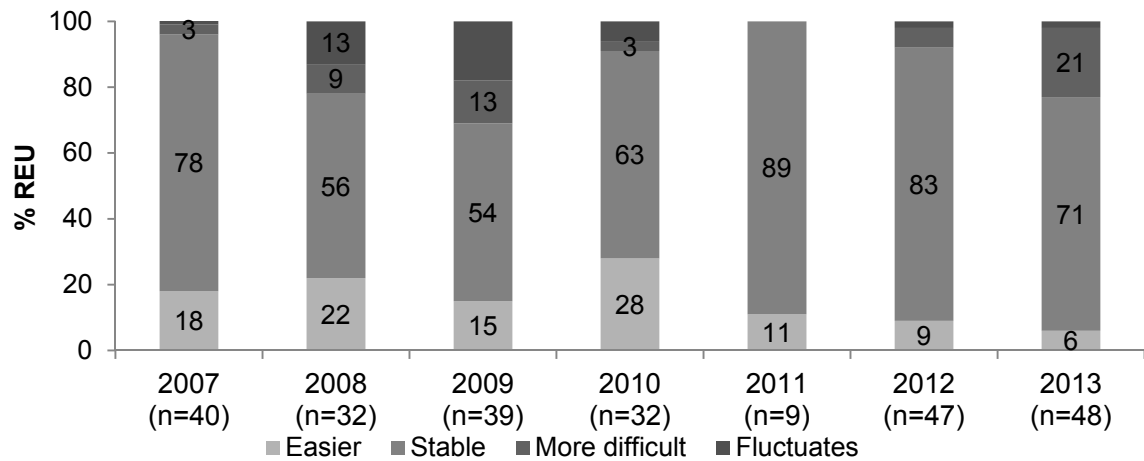
Source: EDRS interviews

Figure 31: REU reports of change in hydro cannabis availability in the last six months, 2007-2013



Source: EDRS interviews

Figure 32: REU reports of change in bush cannabis availability in the last six months, 2007-2013



Source: EDRS interviews

REU were asked who they had last obtained cannabis from, and the location that they had last purchased the drug in the preceding six months (Tables 45 and 46). Hydro was most commonly last obtained through purchases from friends (44%) or dealers (38%) at private residences, most typically a friend's home, dealer's home, or the respondent's own home. Similarly, bush was last obtained from friends (55%) or dealers (32%), and was most typically last obtained at private residences.

Table 45: REU reports of last hydro source in the last six months, 2009-2013

	Hydro				
	2009	2010	2011	2012	2013
Person last purchased*	n=45	n=38	n=9	n=50	n=45
Used not purchased (%)	9	-	-	2	7
Friends (%)	51	82	56	60	44
Dealers (%)	33	5	44	26	38
Workmates (%)	4	3	-	4	-
Acquaintances (%)	2	3	-	2	2
Unknown persons (%)	-	3	-	6	-
Last location purchased*	n=45	n=37	n=10	n=50	n=45
Used not purchased (%)	9	-	-	2	7
Home delivery (%)	16	27	27	32	40
Friend's home (%)	40	51	36	36	22
Dealer's home (%)	24	5	27	18	27
Acquaintance's home (%)	7	3	-	-	-
Agreed public location (%)	2	8	-	2	2
Street market (%)	-	-	-	-	-
Work (%)	-	3	-	2	-
Other (%)	-	3	-	6	-

Source: EDRS interviews

* among those who commented and who had used cannabis in the last six months

Table 46: REU reports of last hydro source in the last six months, 2009-2013

	Bush				
	2009	2010	2011	2012	2013
Person last purchased*	n=36	n=29	n=11	n=46	n=47
Used not purchased (%)	8	-	-	4	2
Friends (%)	61	79	64	63	55
Dealers (%)	22	17	27	22	32
Workmates (%)	-	-	-	2	-
Acquaintances (%)	8	3	-	2	2
Unknown persons (%)	-	-	-	7	-
Last location purchased*	n=36	n=29	n=11	n=46	n=47
Used not purchased (%)	8	-	-	10	2
Home delivery (%)	11	31	27	26	19
Friend's home (%)	44	48	36	39	40
Dealer's home (%)	22	10	27	18	26
Acquaintance's home (%)	8	3	-	-	-
Agreed public location (%)	3	3	-	-	4
Street market (%)	3	-	-	-	-
Work (%)	-	-	-	2	-
Other (%)	-	3	9	7	4

Source: EDRS interviews

6.0 HEALTH-RELATED TRENDS

Summary:

- **Overdose.** Less than one-tenth (8%) of the 2013 REU sample had overdosed on a drug in the preceding six months. This is consistent with the relatively low proportion of participants reporting an overdose episode in previous years. In 2013, 4% reported a recent overdose episode on a stimulant drug (typically methamphetamine) and 4% reported a recent overdose on a depressant drug (e.g., alcohol, benzodiazepines, heroin). While these symptoms of overdose were not medically trivial, most participants had not received any formal medical treatment in relation to an overdose episode.
- **Access to health services.** One-half of REU reported accessing a health/medical service in the past six months for any reason, most commonly a general practitioner (GP) (78%), dentist (28%), or psychologist (23%). Despite regular substance use, just under one-tenth (9%) of REU had accessed health services in relation to drug use in the last six months, and, when they did so, this was most commonly a GP (43%), psychologist (29%) or a drug and alcohol worker (29%). Participants had last accessed services in relation to the use of ecstasy (29%), cannabis (29%), or other opiates (10%).
- **Mental health problems.** Two-fifths (41%) of the 2013 REU sample reported experiencing mental health problems during the six months prior to the interview. Among these individuals, depression (74%) and/or anxiety (55%) were most commonly reported in the last six months. Just one-half (52%) of those who had experienced mental health problems had attended a health professional in relation to these problems during this time, suggesting an unmet demand for service provision.
- **Psychological distress.** Mean scores on the Kessler psychological distress scale (K10) were higher among the current sample of REU relative to the general Australian population (National Health Survey; ABS, 2009). The proportion of the sample with scores categorised as very high (9% vs. 3.5%) and high (28% vs. 8.5%) was significantly greater than the general Australian population. Those classified in the high range have increased rates of experience of mental health problems and may benefit from interventions with health professionals.
- **Other problems.** Over two-fifths (43%) of the 2013 sample reported a recurrent drug-related problem, suggestive of possible substance abuse. One-third of the sample (33%) indicated that their drug use had recurrently interfered with their responsibilities at home, at work, or at school, one-quarter (27%) reported repeated problems with family, friends, or people at work or school, one-fifth (19%) had recurrently found themselves in a situation where they were under the influence of a drug and could have put themselves or others at risk, and 1% reported recurrent drug-related legal problems. Problems were most commonly attributed to alcohol, ecstasy and cannabis.
- **Ecstasy dependence.** One-fifth (19%) of REU reported experiencing significant symptoms of dependence in relation to ecstasy.

- **Tasmanian drug treatment data.** While a number of calls have been made to the Tasmanian ADIS over the last few years in relation to ecstasy (4-17 calls per annum), these account for a small percentage (between 0.7% and 2.6%) of the calls made to this service.
Data from the NMDS for alcohol and other drug treatment services in Tasmania show that ecstasy was the principal drug of concern in only 0.5% of all treatment episodes in the 2010/11 period (equating to approximately eight treatment episodes out of a total of 1,554).
- **Tasmania hospital admission data.** Cannabis-related hospital admissions remained relatively stable between 2008/09 and 2010/11 (22-41 cases), and was below the national admission within this timeframe. A substantial increase in cannabis-related admissions was reported in Tasmania in 2011/12 (67 cases), representing an admission rate substantially greater than that seen nationally (255 vs 180 per million population).
- Since 2008/09 the rate of admissions in Tasmania has been relatively stable and substantially below the national admission rate, with a rate of 84 (per million persons) reported in Tasmania in 2011/12 compared to a rate of 226 (per million persons) nationally. While both national and Tasmanian rates were higher in 2011/12 relative to the previous two years, this increase was greater nationally when compared to the Tasmanian figures.
- There has been very few hospital admissions recorded in Tasmania in relation to cocaine in previous years. In 2011/12 there was a substantial increase in the Tasmanian admission rate for cocaine; however, this still remained below the national rate (11 vs. 18 per million population).

6.1 Overdose

Around one-third (35%) of 2013 REU had overdosed on any drug at some stage of their life (Table 47). Of those who had ever overdosed on any drug, the median number of times was eight (range 3-60). Less than one-tenth (8%) of the 2013 REU sample had overdosed on a drug in the preceding six months. This is consistent with the relatively low proportion of participants reporting an overdose episode in 2012 and the years prior to 2011. Data reported in 2011 is not directly comparable to due to an unintentional broadening of the definition of overdose in relation to alcohol.

Table 47: Overdose (OD) on both stimulants and depressants among REU, 2005-2013

	2005 n=99	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 [#] n=75	2012 n=100	2013 n=76
Ever OD any drug (%)	30	24	27	23	24	16	53	24	35
Median times ever OD (range)*	2 1-50	1 1-5	2 1-20	3 1-30	2 1-10	2 1-40	6.5 1-122	1.5 1-20	1 1-60
OD on any drug last 6 mths (%)	16	8	11	12	7	6	41	6	8
OD on stimulant drug last 6 mths (%)	n/a	n/a	2	6	1	2	13	4	4
Median times ever OD on stimulant (range)	n/a	n/a	2 1-12	1 1-10	1 1-5	2 1-3	2 1-10)	1 1-20	1.5 1-40
OD on depressant drug last 6 mths (%)	n/a	n/a	9	7	6	4	32	2	4
Median times ever OD on depressant (range)	n/a	n/a	2 1-20	2 1-30	2 1-10	2 1-40	7.5 1-120	1 1-7	1.5 1-20

Source: EDRS interviews

*of those reporting overdose episode

[#]data reported in 2011 should be interpreted with caution due to an unintentional broadening of the definition of overdose in relation to alcohol

Participants were asked to distinguish between stimulant and depressant drug overdose episodes (Table 48). An overdose episode was defined by the common symptoms experienced. For a stimulant overdose, these symptoms included nausea/vomiting, chest pain, tremors, increased body temperature, increased heart rate, and seizure. For a depressant overdose, these symptoms included reduced level of consciousness, respiratory depression, turning blue, and collapsing.

One-fifth (21%) of the 2013 sample had ever overdosed on a stimulant drug, and 4% had overdosed on a stimulant drug in the six months preceding the interview. The main drugs involved in the last stimulant overdose were methamphetamine powder (33%), crystal methamphetamine (33%) and MDA (33%). Alcohol and ecstasy had also been consumed in all of these cases and methamphetamine powder and cannabis had been consumed in single episodes. In all cases the overdose episode occurred at a private location (friend's home 67%, own home 33%). All REU who commented reported that they were watched by friends (100%) on this occasion.

Just under one-fifth (19%) of the sample had ever overdosed on a depressant drug and 4% had overdosed on a depressant drug in the six months preceding the interview. The main drug involved in the last depressant overdose in the last six months was alcohol (33%), benzodiazepines (33%) and heroin (33%). The overdose episode occurred at a private residence (67%) or at a rave/dance party (33%) and participants either received no treatment (67%) or were watched by friends (33%) on this occasion.

Table 48: Characteristics of last overdose on stimulant and depressant drugs among REU, 2009-2013

	Stimulant overdose					Depressant overdose				
	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
% main drug*	n=1	n=2	n=10	n=4	n=3	n=6	n=4	n=24	n=2	n=3
Ecstasy	-	50	20	25	-	-	-	-	-	-
Meth powder	-	-	40	-	33	-	-	-	-	-
Meth base	-	-	-	-	-	-	-	-	-	-
Crystal meth	100	-	-	-	33	-	-	-	-	-
Alcohol	-	-	-	-	-	67	75	92	100	33
Benzodiazepines	-	-	-	-	-	-	-	-	-	33
Cannabis	-	-	-	-	-	17	-	-	-	-
GHB	-	-	-	-	-	17	-	-	-	-
Pharm. stimulants	-	50	10	-	-	-	-	-	-	-
Other opioids	-	-	-	-	-	-	25	-	-	-
Capsule (unknown)	-	-	10	-	-	-	-	-	-	-
Mephedrone	-	-	10	-	-	-	-	-	-	-
2CI	-	-	10	-	-	-	-	-	-	-
Heroin	-	-	-	-	-	-	-	8	-	33
Cocaine	-	-	-	25	-	-	-	-	-	-
DXM	-	-	-	25	-	-	-	-	-	-
Unknown capsules	-	-	-	25	-	-	-	-	-	-
MDA	-	-	-	-	33	-	-	-	-	-
% other drugs*	n=1	n=2	n=10	n=4	n=3	n=6	n=4	n=24	n=2	n=3
Ecstasy	-	50	10	-	100	33	50	8	50	-
Meth powder	-	-	-	-	33	-	-	-	-	-
Meth base	-	-	-	-	-	-	-	-	50	-
Crystal meth	-	-	-	-	-	-	-	-	-	-
Alcohol	-	50	70	100	100	17	25	8	-	33
Cannabis	-	50	40	25	33	-	25	33	-	-
Antidepressants	-	-	-	-	-	-	-	-	-	-
Benzodiazepines	-	-	10	-	-	-	-	4	-	-
Pharm. stimulants	-	-	-	-	-	-	-	-	-	-
Amyl nitrite	-	-	-	-	-	-	-	4	-	-
LSD	-	-	-	-	-	-	-	-	-	-
Other opioids	-	-	-	-	-	-	-	-	-	-
Cocaine	-	-	-	-	-	17	-	-	-	-
Methadone	-	-	-	-	-	-	25	-	-	-
Energy drinks	-	-	10	-	-	-	-	-	-	-
Mushrooms	-	-	-	25	-	-	-	-	-	-
% last location*	n=1	n=2	n=10	n=4	n=3	n=6	n=4	n=24	n=2	n=3
Home	100	100	10	25	33	33	-	33	50	-
Friend's home	-	-	50	25	67	-	50	21	50	67
Pub	-	-	10	25	-	-	-	17	-	-
Live music event	-	-	10	25	-	33	25	4	-	-
Nightclub	-	-	10	-	-	17	-	25	-	-
Public place	-	-	-	-	-	-	-	-	-	-
Rave/dance party	-	-	-	-	-	-	-	-	-	33
Outdoors	-	-	-	-	-	-	-	-	-	-
Private party	-	-	10	-	-	17	25	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
% last treatment*	n=1	n=2	n=10	n=4	n=3	n=6	n=4	n=24	n=2	n=3
None	-	50	90	50	-	83	25	71	50	67
Watched by friends	-	-	10	50	100	-	50	17	50	33
Onsite help	-	-	-	-	-	-	25	-	-	-
Hospital/ambulance	-	-	-	-	-	17	-	4	-	-
Taken to doctor	100	-	-	-	-	-	-	-	-	-
Other	-	50	-	-	-	-	-	4	-	-
Don't know	-	-	-	-	-	-	-	4	-	-
Median hours partying before OD (range)*	120 n=1	10 n=1	6.75 (3-24)	4 (.2-48)	12 (8-48)	n/a	18 (6-24)	6 (3-72)	15 (6-24)	8 (6-10)

Source: EDRS interviews

* of those reporting overdose episode in last six months

6.2 Help-seeking behaviour

One-half (53%) of the 2013 REU sample had accessed health or medical services for any reason in the past six months (Table 49). Those who had accessed health services had done so on a median of three occasions (range 1-54) during the past six months.

The services that were most typically accessed were a GP (78%), dentist (28%) or psychologist (23%).

Just under one-tenth (9%; n=7) had accessed a health or medical service in relation to their drug use during the past six months (Table 49).

Among those who had recently accessed health services in relation to drug use, the most commonly accessed services were a GP (43%), a psychologist (29%), a drug and alcohol worker (29%), a social/welfare worker (14%), and a specialist doctor (14%).

Services had been accessed primarily in relation to ecstasy (29%), cannabis (29%) or other opioids (14%).

An additional 13% (n=10) indicated that they had thought about contacting services for reasons related to drug use. Reasons for not contacting services were: working out the problem oneself (50%), not wishing to stop drug use (30%), 'couldn't be bothered' (10%), and belief that services would not be able to help (10%).

Table 49: Access to health services in the last six months among REU, 2006-2013

	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=75
Accessed any health service in last 6 mths (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	53
Median number of times accessed services (range)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n=40 3 1-54
Services accessed (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n=40
GP								78
Psychologist								23
Psychiatrist								5
Drug/alcohol counsellor								5
Social/welfare worker								10
Dentist								28
Specialist doctor								10
Other health service								10
Emergency Department								5
Hospital (inpatient)								5
Hospital (outpatient)								3
Medical tent/First Aid								5
Ambulance								3
Accessed health service in relation to drug use (%)	22	15	14	13	14	13	11	9
Median number of visits related to drug use (range)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n=7 2 1-46
Services accessed in relation to drug use (%)*	n=22	n=15	n=14	n=13	n=14	n=12	n=11	n=7
GP	45	40	50	69	29	50	55	43
First aid	23	7	21	15	14	-	-	14
Ambulance	27	-	7	8	7	-	-	-
Emergency	18	-	21	15	7	17	-	-
Hospitalisation	14	-	-	15	-	-	-	-
Counsellor	14	27	21	23	21	17	9	-
Drug & alcohol worker	14	7	7	23	15	8	18	29
Psychologist	14	13	7	15	39	8	9	29
Psychiatrist	9	-	7	15	17	-	-	-
Telephone counselling	-	-	-	-	8	-	-	-
Internet counselling	-	7	-	8	-	-	-	-
Social/welfare worker	-	-	-	-	-	-	-	14
Specialist doctor	-	-	-	-	-	-	-	14
Other	-	-	-	-	7	-	9	-
Main drug on last visit (%)*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n=7
Alcohol								-
Ecstasy								29
Methamphetamine								-
Cannabis								29
Methadone								-
Polydrug								14
Mephedrone								-
Heroin								-
Other opioids								14

Source: EDRS interviews

*out of the total number of treatment episodes, participants may have attended more than one service

6.3 Mental health problems and psychological distress

6.3.1 Mental health problems

Two-fifths (41%) of the 2013 REU sample reported that they had experienced mental health problems during the six months prior to the interview (Table 50). Of those who had experienced mental health problems, the most common problems experienced were depression (74%), anxiety (55%), paranoia (13%), and post-traumatic stress disorder (PTSD) (13%).

One-fifth of the sample (21%), or one-half (52%) of those who reported experiencing mental health problems, had attended a health professional in relation to these problems during the last six months. This suggests an unmet demand in terms of service provision.

Less than one-tenth of the sample reported being prescribed antidepressants (9%), benzodiazepines (7%) or antipsychotics (3%) for psychological conditions during this time.

Table 50: Self-reported mental health problems in last six months, 2007-2013

	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Experienced mental health problem last 6 months (%)	35	27	30	30	27	34	41
Mental health problem*	n=35	n=27	n=30	n=30	n=20	n=34	n=31
Depression	66	70	67	60	50	50	74
Anxiety (%)	54	70	73	60	60	71	55
Paranoia (%)	14	15	20	17	10	32	13
Panic (%)	9	-	7	10	20	15	10
Psychosis (%)	6	11	-	3	5	3	-
OCD (%)	6	15	3	3	-	-	7
Bipolar disorder (%)	3	11	-	10	15	3	3
Eating disorder (%)	3	-	-	-	-	-	-
Self-harm (%)	3	-	-	-	-	-	-
Schizophrenia (%)	-	4	-	-	-	3	3
Mania (%)	-	4	-	-	-	3	-
Personality disorder (%)	-	4	-	-	5	-	3
Phobia (%)	-	-	3	-	-	-	7
PTSD (%)	-	-	-	-	-	-	13
Attended mental health professional (%)	34	48	53	33	19	14	21
Prescribed antidepressants (%)	17	19	30	3	7	1	9
Prescribed benzodiazepines (%)	9	22	20	3	7	4	7
Prescribed antipsychotics (%)	3	7	-	3	3	1	3

Source: EDRS interviews

* among those who had experienced a mental health problem

6.3.2 Psychological distress

The Kessler Psychological Distress Scale (K10) is a 10-item questionnaire designed to measure the level of distress and severity associated with psychological symptoms in population surveys, and it has been shown to be a marker for possible clinical diagnosis of anxiety or affective disorders (Andrews & Slade, 2001). Participants were asked to rate the extent to which they had experienced particular psychological symptoms (e.g., How often did you feel depressed?) in the preceding month on a five-point Likert scale.

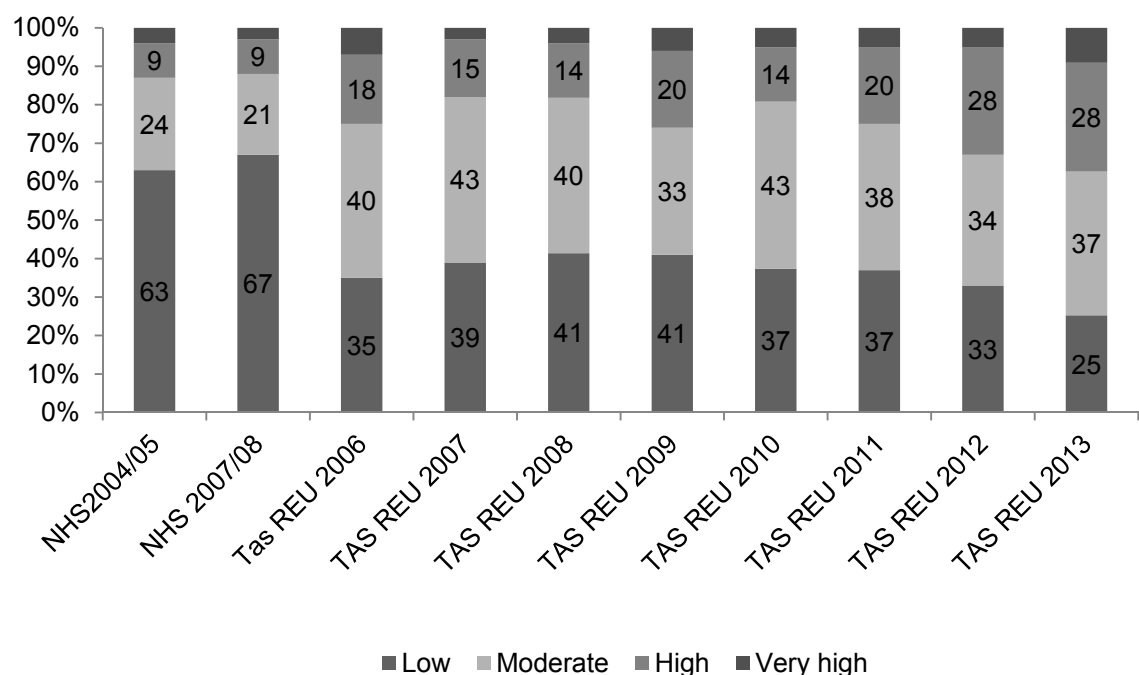
Among a normative Australian population sample, the mean K10 score was 14.2 with a median of 12 (range 0-50) (Andrews & Slade, 2001). Among the REU interviewed in 2013, the mean K10 score was higher at 20.3 (SD=6.6) and the median was 19 (range 10-50) out of a possible score of 50.

K10 scores can also be grouped into four categories of psychological distress: low (10-15); moderate (16-21); high (22-29); and very high (30-50). K10 scores of 30 or more (the very high category) have a specificity of 0.99 (correct rejection rate) and sensitivity of 0.24 (hit rate) for the identification of a current anxiety or affective disorder meeting DSM-IV criteria (Andrews & Slade, 2001). In the 2007 Australian National Survey of Mental Health and Well-being, 80% of those with a K10 score of 30 or greater met criteria for a DSM-IV mental disorder in the preceding 12 months, with 67% meeting criteria for an anxiety disorder and 54% for an affective disorder (ABS, 2008). Individuals with high levels of psychological distress have increased rates of experience of mental health problems and may benefit from intervention with a health professional (Andrews & Slade, 2001).

In the current sample, 9% of REU participants had a score of 30 and above and therefore very high levels of psychological distress. One-quarter scored in the high category (28%), almost two-fifths (37%) scored in the moderate category, and one-quarter (16%) scored in the low category (Figure 33).

Figure 33 shows a comparison between the EDRS sample with data from the 2004/05 and 2007/08 National Health Surveys which were based on large normative samples (n=19,501 and n=15,751 respectively) from the general Australian adult population (18-85+) (ABS, 2006, 2010). The proportion of the 2013 EDRS sample with scores categorised as very high is significantly higher than the 2007/08 NHS sample (9%, 95%CI 5-18% vs. 3.5%, 95%CI 3.2-3.8%, $\chi=5.85$, $p=.016$). Similarly, the proportion with scores categorised as high is significantly greater than that of the 2007/08 NHS sample (28%, 95%CI 19-39% vs. 8.5%, 95%CI 8.1-9.0, $\chi^2=33.69$, $p<.001$).

Figure 33: Responses to the K10 questionnaire in the National Health Survey 2004/05-2007/08 and EDRS, 2006-2013



Source: EDRS interviews, 2006-2013; National Health Survey, 2004/05, 2007/08

6.4 Other self-reported problems associated with ERD use

6.4.1 Recurrent drug-related problems

REU were asked if their drug use had caused recurrent problems during the six months preceding the interview (Table 51). These questions were chosen to be consistent with diagnostic criteria for substance abuse disorders, and are based on the Comprehensive International Diagnostic Interview (CIDI). Around two-fifths (42%, 95%CI 32-54%) reported any recurrent drug-related problem, suggestive of possible substance abuse, which is similar to the proportion in 2012 (39%, 95%CI 30-49%).

Table 51: Self-reported recurrent drug-related problems in last six months, 2007-2013

	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Any recurrent drug problem (%)	57	53	42	35	59	39	43
Responsibility problems (home/work/school) (%)	39	39	26	23	27	33	33
Risk problems (risk to self or others) (%)	26	28	19	22	40	21	19
Relationship/social problems (%)	25	14	15	13	15	19	27
Legal/police problems (%)	3	2	5	3	5	3	1

Source: EDRS interviews

One-third of the sample (33%) indicated that their drug use had recurrently interfered with their responsibilities at home, at work, or at school (Table 51). These problems were most often attributed to alcohol (36%), ecstasy (32%) or cannabis (20%) (Table 52).

Almost one-fifth (19%) had recurrently found themselves in a situation where they were under the influence of a drug and could have put themselves or others at risk (Table 51). These risk-related problems were most commonly attributed to alcohol (71%) (Table 52).

One-quarter of the sample (27%) reported that their drug use caused them to have repeated problems with family, friends, or people at work or school (Table 51). These social problems were most commonly attributed to alcohol (35%) or ecstasy (30%) (Table 52).

A very small proportion of the EDRS sample (1%) reported that they had experienced recurrent drug-related legal problems.

Table 52: Main drug attributed to problems experienced in the last six months, 2013

	Responsibility problems n=25	Risk problems n=14	Social problems n=20
Ecstasy (%)	32	-	30
Cannabis (%)	20	14	15
Methamphetamine (%)	4	7	10
Alcohol (%)	36	71	35
Other (%)	8	7	10

Source: EDRS interviews

6.4.2 Self-reported symptoms of ecstasy dependence

REU were asked about how they had felt about their ecstasy use during the 12 months preceding the interview using a version of the Severity of Dependence Scale (SDS) (Gossop et al., 1995) adapted for ecstasy use. The scale consisted of five multiple choice questions that were rated on a scale from 0 to 3, resulting in a range of possible scores from 0-15 where high scores suggest greater psychological dependence. Participants were asked if they thought that their ecstasy use was out of control, if the prospect of missing a dose had 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.

Findings in relation to ecstasy dependence should be interpreted with caution due to the fact that there has been limited research of this syndrome (see Topp, Hall, & Hando, 1997; Degenhardt, Bruno & Topp, 2010). The properties of the SDS are discussed in Bruno et al. (2009) and Bruno, Gomez, and Matthews (2009). It should also be taken into consideration 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.

The median ecstasy SDS score was 0 (range 0-6). One-half of participants (51%) obtained a score of zero on the ecstasy SDS, and almost two-fifths (19%) obtained a score of 1 on the scale (Table 53). Thus, 70% respondents reported no or few symptoms of dependence in relation to ecstasy use.

A score of 3 or more on the SDS provides a good balance between sensitivity and specificity for identifying problematic ecstasy use (Bruno, Gomez, & Matthews, 2009). One-fifth (19%) of the 2013 REU sample had a score of 3 or above on the ecstasy SDS and one-tenth (11%) had a score of 4 or more.

Table 53: Self-reported symptoms of ecstasy dependence, 2007-2013

	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=74
Median SDS score (range)	2 (0-10)	2 (0-11)	1 (0-9)	0 (0-8)	0 (0-7)	1 (0-7)	0 (0-6)
% SDS score ≥ 3	34	30	18	15	12	41	19
% SDS score ≥ 4	24	13	14	7	5	33	11

Source: EDRS interviews

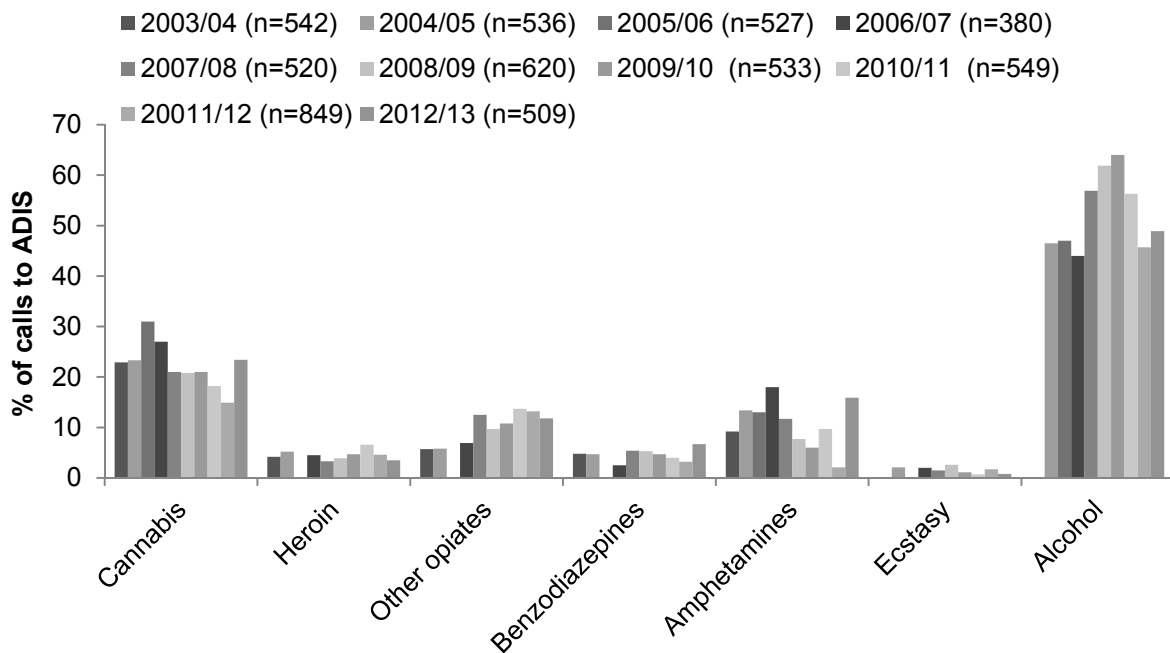
6.5 Drug treatment indicator data

6.5.1 Alcohol and Drug Information Service data

The Tasmanian ADIS is a telephone information and referral service that is administered by Turning Point Alcohol and Drug Centre in Victoria (Turning Point, 2001-2009). Detailed information in regard to drugs used was not included in the 2003/04, 2005/06 and 2007/08 ADIS reports, thus calls pertaining to ecstasy (along with cocaine and hallucinogens) are not available for these reporting periods. Calls in relation to cocaine are not available after the 2000/01 reporting period.

A small but consistent number of calls (between 4 and 17 calls per annum) have been recorded in relation to ecstasy between the 2000/01 and the 2011/12 reporting periods (Figure 34), with four calls (0.8% of all calls) recorded in 2012/13.⁶ Figures 34 and 35 show that calls in relation to ecstasy account for a very small percentage (between 0.7% and 2.6%) of the total calls made to the service. For the 2012/13 reporting period, almost half (49%) of all calls related to alcohol, followed by cannabis (23%), and amphetamines (16%), a pattern in keeping with the overall trends in previous years (Figure 34).

Figure 34: Percentage of inquiries to ADIS for each drug type, 2003/04-2011/12

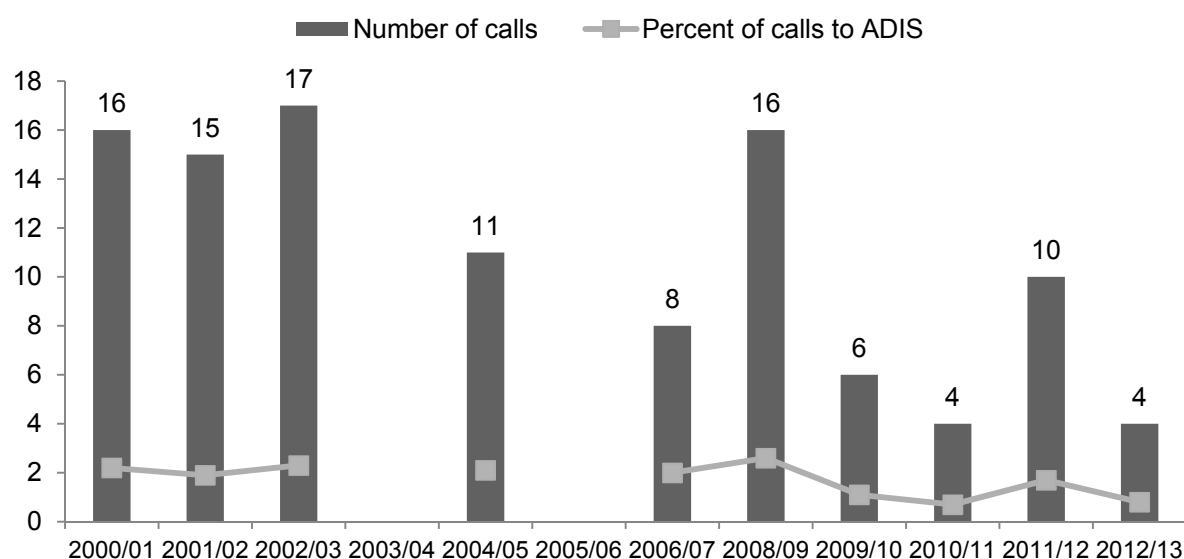


Source: ADIS Tasmania reports, Turning Point Alcohol and Drug Centre

Note: 2005/06 data were only provided for amphetamines, cannabis, and alcohol. Calls in relation to alcohol are not reported prior to 2004/05. Calls referring to ecstasy were not specified in the 2003/04 and 2005/06 reports.

⁶ Data from calls made to the Turning Point-administered ADIS have been reported over differing time periods due to the requirements of the Department of Health and Human Services; however, for comparative purposes (and since this annual data are the only information available to the authors), these slightly differing reporting periods were each treated as financial year periods.

Figure 35: Number of calls and percentage of inquiries to ADIS with regard to ecstasy, 2000/01-2011/12



Source: ADIS Tasmania reports, Turning Point Alcohol and Drug Centre

Note: Calls referring to ecstasy were not specified in the 2003/04 and 2005/06 reports.

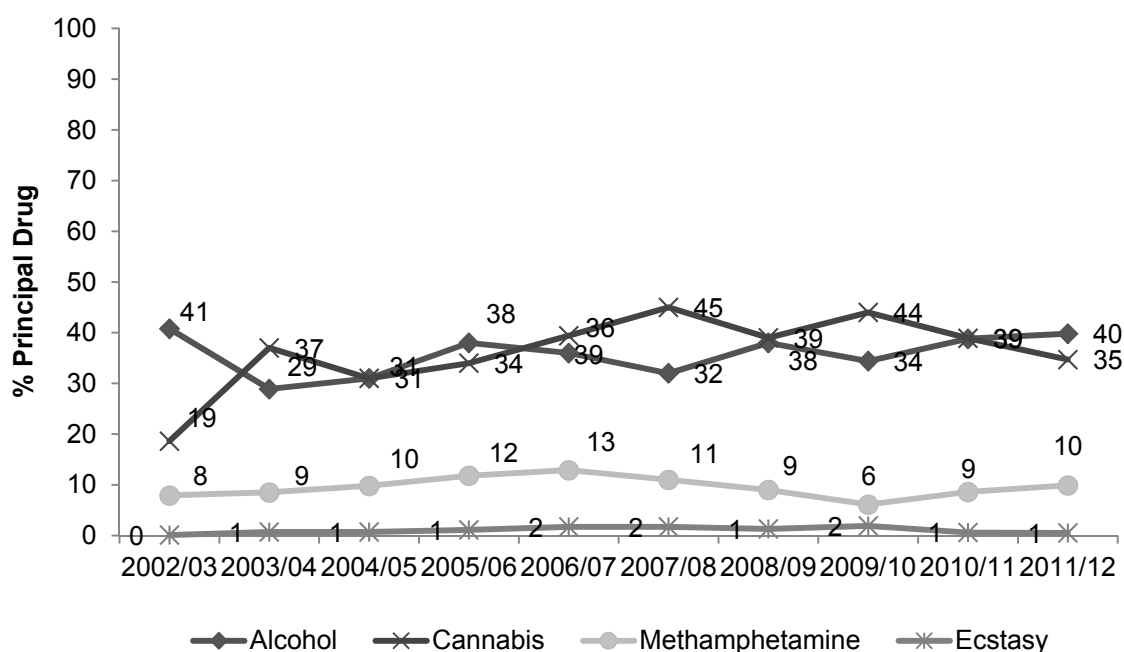
6.5.2 NMDS treatment episode data

Figure 36 shows the proportion of treatment episodes in which the principal drug of concern was alcohol, cannabis, methamphetamine or ecstasy, based on findings from the NMDS for alcohol and other drug treatment services in Tasmania (AIHW). Data for the 2012/13 financial year were not available at the time of publication.

Of all drug treatment episodes reported to the NMDS in Tasmania during 2011/12, two-fifths had alcohol (40%) or cannabis (39%) as the principal drug of concern, and one-tenth involved meth/amphetamine (10%). Treatment episodes in which ecstasy was the principal drug of concern accounted for 0.5% of all episodes (equating to approximately eight treatment episodes out of a total of 1,554).

With regard to all treatment episodes, the most common treatment was counselling (62%) followed by information and education (12%) and assessment only (9%).

Figure 36: Tasmanian Alcohol and Other Drug Treatment Services Minimum Data Set: Closed treatment episodes by principal drug of concern, 2002/03-2011/12



Source: AIHW

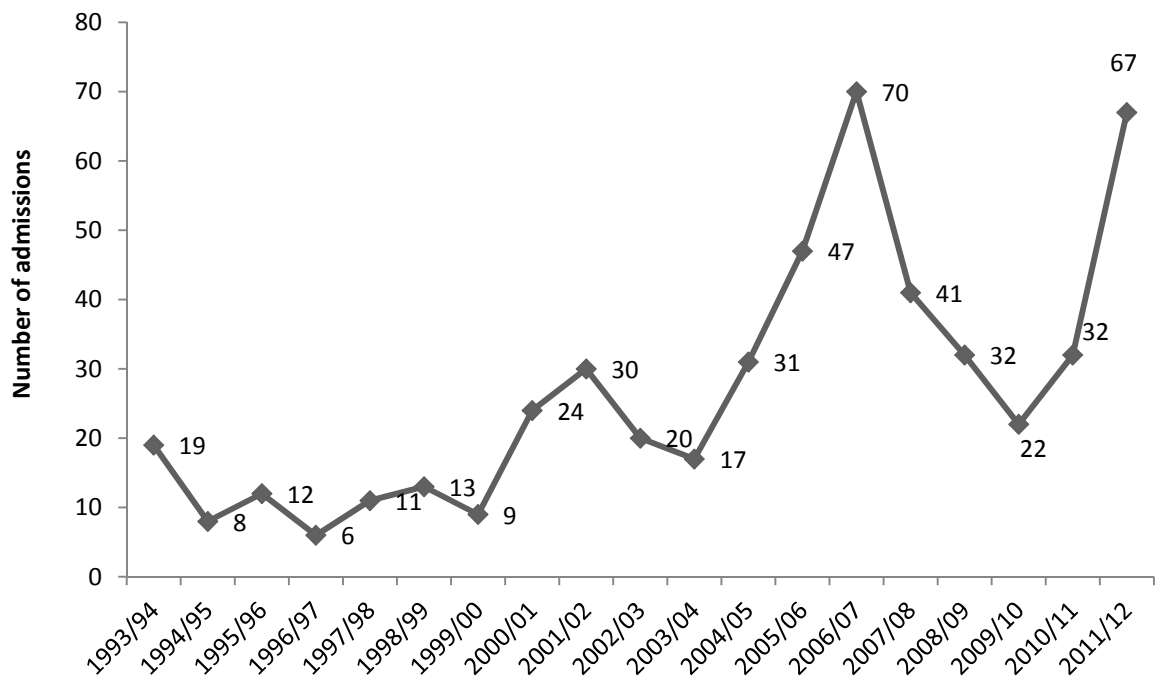
6.6 Hospital admission indicator data

Hospital morbidity data in relation to use of drugs have been provided by the AIHW for the 1993/04 to 2011/12 financial year periods. Data for the 2012/13 period was unavailable at the time of publication. These data relate to Tasmanian public hospital admissions, for individuals aged between 15 and 54 years, where use of each substance was recorded as the 'principal diagnosis' – namely, where the effect of the substance was established, after study, to be chiefly responsible for occasioning the patient's episode of care in hospital (with the exception of admissions for psychosis and withdrawal). These figures were based on diagnoses coded according to the International Classification of Diseases (ICD) 10, second edition. It is important to note that data from the state's single public specialist detoxification centre are only included in this dataset from June 2002. Data is provided for hospital admissions in relation to cannabis, methamphetamine and cocaine. Hospital admission data for opioids can be found in the 2013 IDRS report (de Graaff, Peacock & Bruno, 2014). There are no objective hospital admission data in relation to substances such as ecstasy, ketamine, GHB, LSD, and MDA in Tasmania.

6.6.1 Cannabis

Tasmanian public hospital admissions where cannabis use was noted as the principal diagnosis are presented in Figure 37. The number of cases remained relatively stable between 2007/08 and 2010/11 (22-41 cases), however, in 2011/12 there was a substantial increase with 67 cases reported. When the population-adjusted rates of Tasmanian admissions are compared with those nationally (Figure 38), Tasmanian admission rates were lower than those seen nationally between 2008/09 and 2010/11, but were substantially higher in 2011/12 reporting period (255 vs 180 per million population).

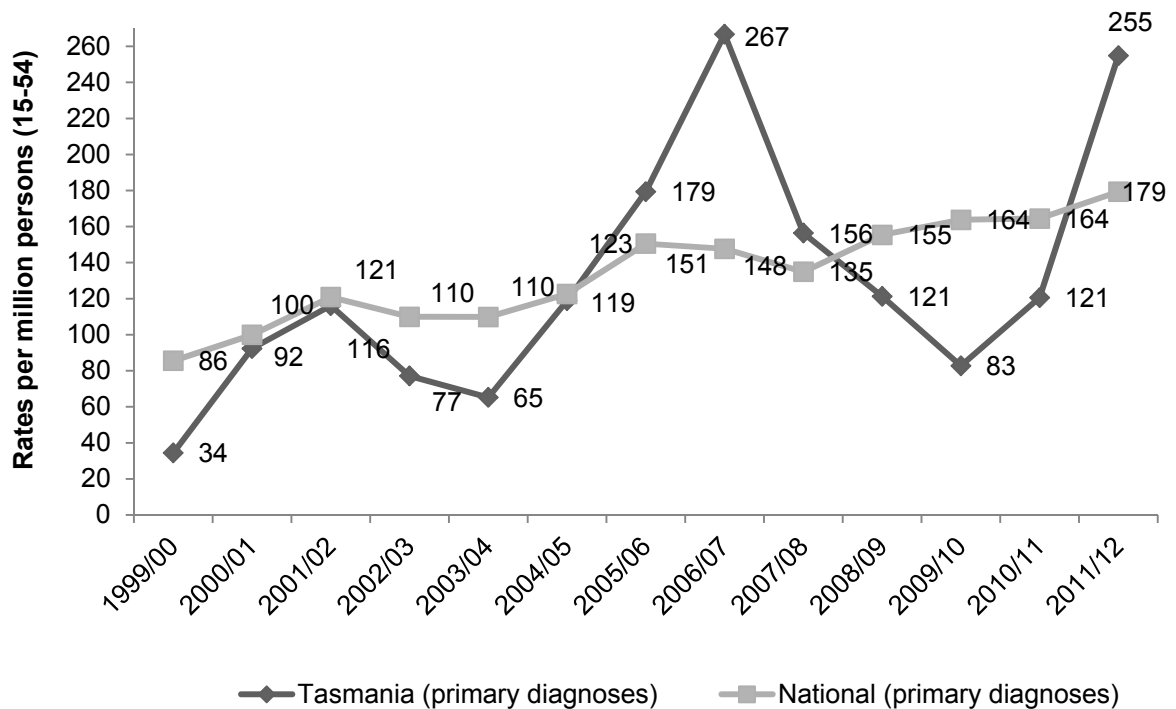
Figure 37: Public hospital admissions (aged 15-54) in Tasmania where cannabis use was noted as the primary factor contributing to admission, 1993/94-2011/12



Source: AIHW (Roxburgh & Burns, in press)

Note: 2012/13 data not available at the time of publication

Figure 38: Public hospital admissions (aged 15-54) where cannabis was noted as the primary contribution to admission, rates per million population for Tasmania and Australia, 1999/00-2011/12



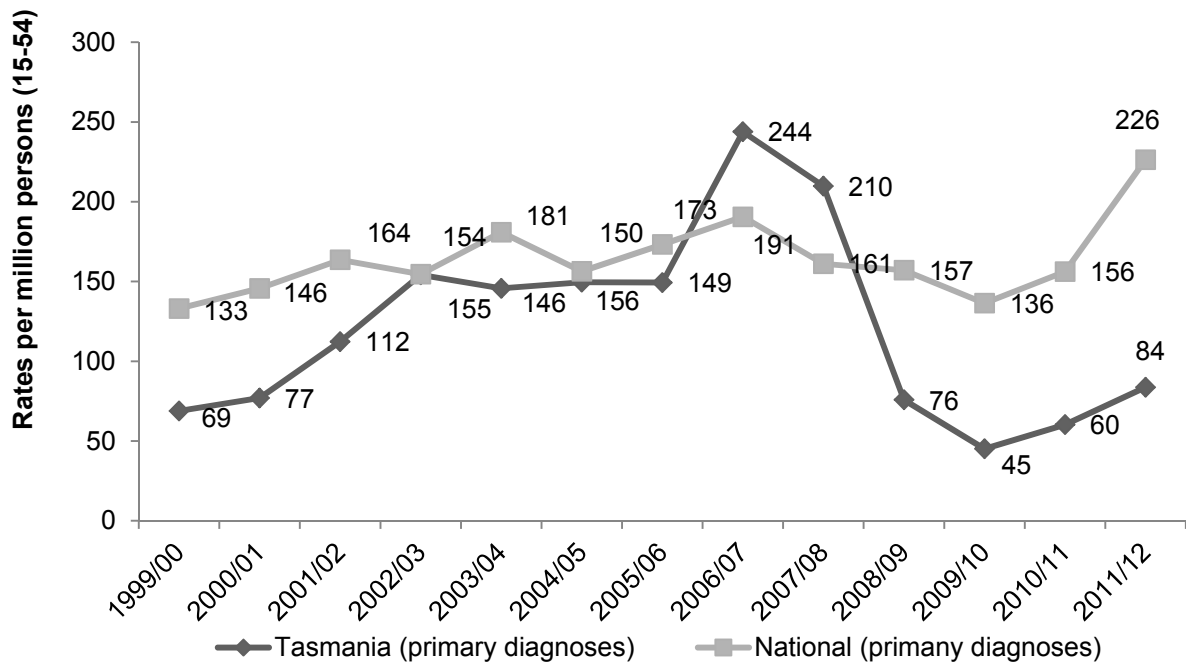
Source: AIHW (Roxburgh & Burns, in press)

Note: 2012/13 data not available at the time of publication

6.6.2 Methamphetamine

Tasmanian public hospital admissions where methamphetamine use was noted as the principal diagnosis (rates per million population) are presented in Figure 39. Since 2008/09, the rate of admissions in Tasmania has been well below the national admission rate, with a rate of 84 (per million persons) reported in Tasmania in 2011/12 compared to a rate of 226 nationally. While both national and Tasmanian rates were higher in 2011/12 relative to the previous two years, this increase was greater nationally when compared to the Tasmanian figures.

Figure 39: Public hospital admissions (aged 15-54) where methamphetamine was noted as the primary factor contributing to admission, rates per million population for Tasmania and Australia 1999/00-2011/12



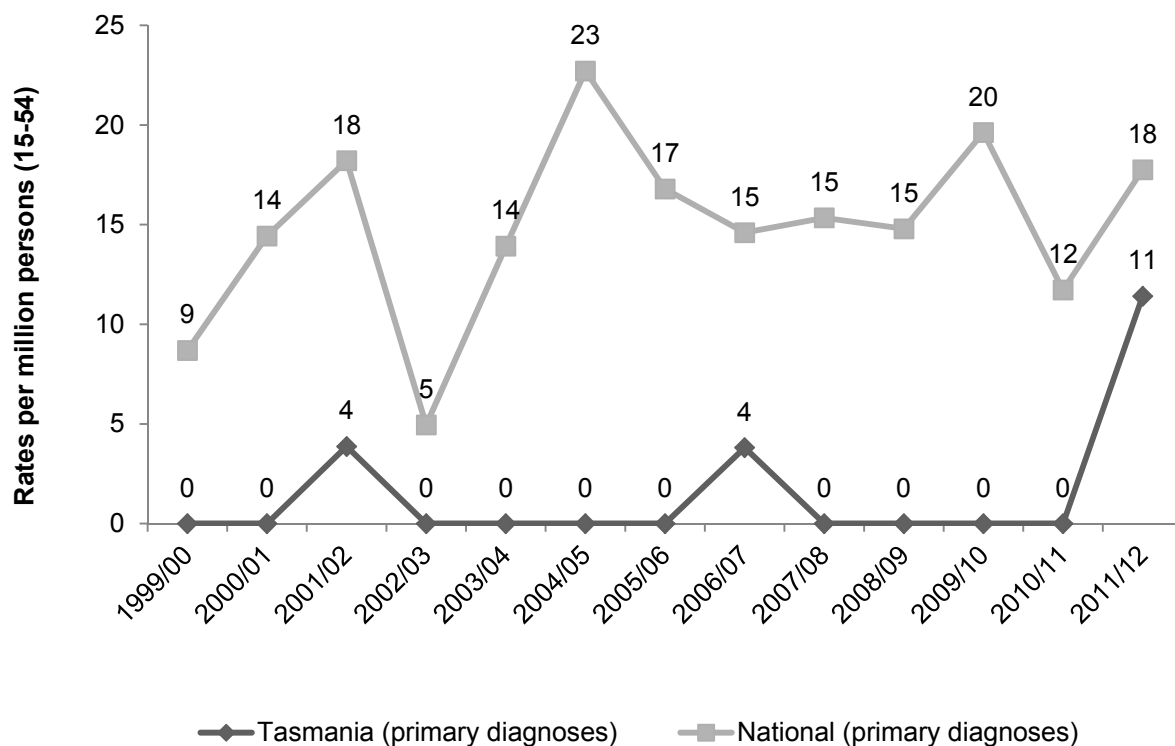
Source: AIHW (Roxburgh & Burns, in press)

Note: 2012/13 data not available at the time of publication

6.6.3 Cocaine

When the local rates of cocaine-related public hospital admissions amongst those aged between 15 and 54 years are compared to the national Australian rate (Figure 40), local cases where cocaine was noted as the primary factor contributing to the admission remain substantially less than that of the national rate between 1999/00 and 2010/11. In 2011/12 there was an increase in the Tasmanian admission rate for cocaine; however, this still remained below the national rate (11 vs. 18 per million population).

Figure 40: Public hospital admissions (aged 15-54) where cocaine was noted as the primary factor contributing to admission, rates per million population for Tasmania and Australia, 1999/00-2011/12



Source: AIHW (Roxburgh & Burns, in press)

Note: 2012/13 data not available at the time of publication

7.0 RISK BEHAVIOUR

Summary:

- **Injecting drug use.** Around one-tenth (11%) of the 2013 REU sample had recently used substances intravenously. This was reported on a median frequency of 5.5 occasions (range 1-72) during the last six months or just under monthly on average. Methamphetamine, heroin, and other opioids were the most common drugs injected in the last six months. Sharing of needles and equipment was relatively uncommon.
- **Sexual risk behaviour.** Almost three-fifths (56%) of REU reported penetrative sex with a casual partner during the six months preceding the interview and just over one-half (53%) reported sex with a casual partner while under the influence of drugs, most commonly alcohol, ecstasy, or cannabis. When under the influence of drugs, two-fifths (43%) reported always using protective barriers with a casual partner and one-fifth (18%) never used protective barriers. One-half (55%) of those who reported sex with a casual partner indicated that they did not use any protective barriers on the last occasion in the previous six months.
- Two-fifths of the sample (45%) had never had a sexual health check-up. A majority (87%) of the sample had never been diagnosed with a sexually transmitted infection (STI) and the remainder had been diagnosed in the last year (4%) or more than a year ago (7%). The most commonly diagnosed STI was chlamydia (67%).
- **Drug driving.** Of those who had driven a car, almost one-quarter (26%) reported driving at a time when they perceived themselves to be over the legal alcohol limit during the last six months, and one-half (55%) reported driving within an hour of taking illicit drugs in the last six months. Most commonly, participants reported driving under the influence of cannabis (82%), ecstasy (25%) or methamphetamine (14% powder, 4% base, 4% crystal).
- The proportion of REU reporting DUI of ecstasy and methamphetamine has declined since 2006. DUI of cannabis declined between 2006 and 2009, increased in 2011 and has remained relatively stable since this time.
- One-half (51%) of recent drivers indicated that the introduction of saliva testing had changed their drug driving behaviour. Among those who had changed their behaviour, the most common changes in behaviour included: not driving after using drugs (65%), waiting for a few hours before driving (23%), using a taxi (15%), using a bus (12%) and organising another driver (12%).
- **Alcohol Use Disorders Identification Test (AUDIT).** One-third (29%) of REU who completed the AUDIT scored in zone 4 (those in this zone may be referred to evaluation and possible treatment for alcohol dependence) which is similar to the proportion in 2012 (33%). A further 11% scored in zone 3 (harmful or hazardous drinking), two-fifths (45%) scored in zone 2 (alcohol use in excess of low-risk guidelines⁷), and just 11% scored in zone 1 (a level reflecting low-risk drinking or abstinence).
- **Binge drug use.** One-third (33%) had recently binged on ecstasy or related drugs (a continuous period of use for more than 48 hours without sleep), on a median of two occasions (range 1-14) in the last six months. Substances most commonly used in a binge session of use were alcohol (88%), cannabis (72%), ecstasy (68%), methamphetamine (powder 44%; base 4%; crystal 20%), energy drinks (28%) and LSD (24%).

⁷ It should be noted that this threshold for low-risk is based on standards employed in the 2007 NDSHS, which represents a threshold substantially higher than that specified by the National Health and Medical Research Council in their revised guidelines. However, the thresholds used in the Household Survey have been reported here in order to facilitate comparisons with such national indicators.

7.1 Injecting drug use

Around two-fifths (18%) of the 2013 REU participants had used substances intravenously at some stage of their lives (Table 54), which is similar to the proportion among previous REU cohorts (8-22%). The median age of first injection was 21 years (range 15-27).

Around one-tenth (11%) of the 2013 sample had used substances intravenously during the six months preceding the interview, relatively similar to the proportions observed among the 2004-2011 REU samples (3-13%). There was no significant difference in the proportion of males (12%) and females (9%) or younger (11%) or older (11%) participants (based on a median split for age) who reported recent intravenous drug use.

Table 54: Injecting drug use among REU, 2005-2013

	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2013 n=76
Ever injected (%)	19	18	10	15	14	8	22	12	18
Age first injected (range)	18 16-29	18 15-33	18 14-29	20 16-31	20 17-28	19 17-23	19 16-23	19.5 15-30	21 15-27
Injected last 6 months (%)	8	9	6	7	12	3	13	6	11

Source: EDRS interviews

7.1.1 Lifetime injecting drug use and context to initiation

Table 55 shows the drugs ever injected and drug first injected for those reporting intravenous use of drugs at some stage of their life (n=14).

Over one-half (57%) of lifetime injectors had first injected methamphetamine (50% powder, 7% crystal), one-fifth (21%) had first injected heroin, and one-fifth (21%) had first injected other opioids (includes opium, morphine and pethidine).

Lifetime injection of methamphetamine (93% any form, 93% powder, 21% base, 29% crystal), heroin (64%), and other opioids (36%) was most common, followed by ecstasy (43% pills, 36% powder, 29% capsules), buprenorphine (29%), and methadone (21%).

Table 55: Injecting drug use history among REU injectors, 2013

	Ever injected (%) n=14	First drug injected (%) n=14
Methamphetamine (any form)	93	57
Methamphetamine powder	93	50
Methamphetamine base	21	-
Crystal methamphetamine	29	7
Pharmaceutical stimulants	14	-
Ecstasy pills	43	-
Ecstasy powder	36	-
Ecstasy capsules	29	-
Heroin	64	21
Methadone	21	-
Buprenorphine	29	-
Cocaine	14	-
LSD	7	-
Ketamine	-	-
MDA	7	-
Other opioids*	36	21
Benzodiazepines	7	-
Alcohol	14	-
Over-the-counter codeine	7	-

Source: EDRS interviews

* Includes opium, morphine, and pethidine

7.1.2 Recent injecting drug use and injecting risk behaviours

Around one-tenth (11%) of the 2013 sample had injected a drug in the six months prior to the interview. Table 56 shows that the most commonly injected drugs in the last six months were methamphetamine (88% powder, 13% base), heroin (38%) and other opioids (38%). The frequency of injection for each drug was variable and ranged from one occasion to four or five times a month within the preceding six months.

Table 56: Recent injecting drug use patterns (recent injectors) among REU, 2013

	% injected last 6 months n=8	Median days injected last 6 months* (range)	% last drug injected n=6
Methamphetamine powder	88	3 (1-24)	63
Methamphetamine base	13	1 n=1	-
Crystal methamphetamine	-	-	-
Ecstasy	25	7.5 (4-11)	-
Methadone	13	1 n=1	-
Buprenorphine	25	12 (10-14)	-
Heroin	38	5 (3-6)	25
Other opioids	38	24 (3-30)	13
MDA	13	4 (n=1)	-

Source: EDRS interviews

* of those who had injected in the preceding six months

Those who had recently injected had done so on a median of 5.5 occasions (range 1-72 times) in the six months preceding the interview, or approximately once a month on average (Table 57). Recent injectors had typically injected with close friends (75%) and had last injected at their friend's home (63%).

Table 57: Context and patterns of injection during the last six months among REU, 2005-2013

	2005 n=8	2006 n=9	2007 n=6	2008 n=7	2009 n=12	2010 n=3	2011 n=10	2012 n=6	2013 n=8
Median times injected (range)	58 1-350	120 1-400	81 4-150	15 1-90	5 1-120	6 2-40	17.5 6-90	7.5 1-35	5.5 1-72
Usually inject with (%)									
Close friends	63	44	67	57	58	67	50	100	75
Regular sex partner	38	33	17	-	25	-	30	17	-
Casual sex partner	-	11	17	-	-	33	-	-	-
Acquaintances	13	22	33	14	-	33	-	17	13
No-one	13	-	17	43	25	33	10	-	13
Relative	-	11	17	-	-	-	-	-	-
Location of last injection* (%)	n/a	n/a	n/a	n/a					
Home					50	100	60	17	38
Friend's home					42	-	30	67	63
Car					8	-	-	-	-
Dealer's home					-	-	10	-	-
Street					-	-	-	-	-
Public toilet					-	-	-	17	-
Venue toilet					-	-	-	-	-
Work					-	-	-	-	-

Source: EDRS interviews

* question not asked prior to 2009

Around two-fifths (63%) had recently injected whilst under the influence of and/or coming down from ecstasy and related drugs during the six months preceding the interview on a median of four days (range 2-6 days) during this time (Table 58).

One recent injector reported sharing of needles and four participants reported sharing equipment such as spoons/containers and tourniquets in the last six months, a practice which increases the risk of exposure to blood-borne viral infections (BBVIs).

Recent injectors reported obtaining needles from a NSP, chemist or friend in the last six months.

Table 58: Recent injecting risk behaviour and obtaining needles in last six months, 2005-2013

	2005 n=8	2006 n=9	2007 n=6	2008 n=7	2009 n=12	2010 n=3	2011 n=10	2012 n=6	2013 n=8
Injected under influence or coming down from ERD (%)	76	89	67	43	33	67	80	50	63
Median times injected under influence (range)*	n=6 5 2-120	n=8 8 2-120	n=4 18 4-50	n=3 15 3-20	n=4 13 1-12	n=2 1.5 1-2	n=7 5 1-20	n=3 3 1-5	n=5 4 2-6
Used needle after someone (%)	13 n=1	-	17 n=1	14 n=1	8 n=1	-	-	17 n=1	13 n=1
Shared equipment (%)									
None	38	56	50	43	83	67	89	67	50
Spoons/containers	13	22	17	14	8	33	-	17	25
Tourniquets	38	33	-	43	-	33	11	17	38
Filters	-	-	-	29	-	-	-	17	-
Water	38	11	17	29	8	-	-	17	-
Needle source (%)									
NSP	88	89	50	43	33	-	90	33	50
Chemist	25	56	67	71	50	100	10	33	38
Friend	25	44	50	-	17	-	-	33	50
Dealer	25	22	-	29	8	-	-	-	13
Partner	-	11	-	-	-	-	-	-	-
Outreach	-	-	-	-	-	-	10	-	-
Hospital	-	-	-	-	-	-	-	-	13

Source: EDRS interviews

* of those that had injected under the influence

7.2 Sexual risk behaviour

Penetrative sex was defined as the penetration of the vagina/anus by the penis/hand. Participants were given the option of self-completing this section of the report due to the personal nature of the questions.

Almost three-fifths (56%) of the 2013 REU sample reported having penetrative sex with a casual partner during the six months preceding the interview (Table 59). The number of casual sexual partners was typically one to five partners during this time.

Just over half (53%) of the sample had engaged in penetrative sex with a casual partner while under the influence of ERD during the last six months (Table 60), with two-fifths (41%) doing so on six or more occasions. These respondents most commonly reported having sex under the influence of ecstasy (63%), followed by alcohol (48%) cannabis (25%), or methamphetamine powder (8%).

Of those who had sex with a casual partner under the influence of drugs in the preceding six months, almost one-fifth (18%) reported that they never used protective barriers (Table 60). Two-fifths reported that they always used protective barriers (43%) and the remainder reported inconsistent use of protective barriers (39%).

Over one-half (55%) of those who reported sex with a casual partner (while under the influence of drugs) indicated that they did not use any protective barriers on the last occasion in the last six months. Common reasons for not using protective barriers on this occasion included: it was not mentioned (22%), lack of availability (22%), personal preference (17%), being on a contraceptive (17%), and intoxication (11%).

Over two-fifths (45%) of the 2013 REU sample had never had a sexual health check-up (Table 59). The majority of the sample (87%) had never been diagnosed with an STI and smaller proportions had been diagnosed with an STI in the last year (4%) or more than a year ago (7%). The most commonly diagnosed STI were chlamydia (67%) and thrush (33%).

Table 59: Prevalence of sexual activity, protective barrier use, and sexual health among REU, 2006-2013

	2006 n=100	2007 n=98	2008 n=99	2009 n=99	2010 n=100	2011 n=75	2012 n=100	2013 n=75
Casual sex last 6 mths (%)	45	54	60	54	60	64	60	56
No. casual partners*	n/a	n/a	n=59	n=54	n=60	n=48	n=60	n=42
One partner (%)			18	33	25	23	12	38
Two partners (%)			23	20	28	21	22	19
Three-five partners (%)			41	35	35	38	48	29
Six-ten partners (%)			14	9	8	15	12	14
More than ten partners (%)			3	2	3	4	7	-
Casual sex with drugs/alcohol (%)	34	40	47	49	55	59	58	53
Number of times[#]	n/a	n/a	n=52	n=49	n=55	n=44	n=58	n=40
Once (%)			10	18	9	2	5	15
Twice (%)			19	14	15	18	17	20
Three-five times (%)			40	16	38	16	38	25
Six-ten times (%)			12	29	16	27	21	33
More than ten times (%)			19	22	22	36	19	8
Drugs used last time[#]	n/a	n/a	n=52	n=49	n=55	n=44	n=58	n=40
Ecstasy (%)			65	67	53	48	55	63
Cannabis (%)			19	20	24	34	41	25
Alcohol (%)			98	90	91	89	64	48
Meth. powder (%)			10	6	4	14	14	8
Meth. base (%)			-	4	-	-	-	-
Crystal meth (%)			-	4	-	-	3	-
Cocaine (%)			2	6	7	2	2	3
LSD (%)			-	2	4	9	7	5
GHB (%)			-	-	-	-	-	-
Amyl nitrite (%)			6	4	-	2	-	-
Nitrous oxide (%)			-	4	2	-	-	-
Methadone (%)			-	4	-	5	-	3
Benzodiazepines (%)			2	4	-	-	2	3
Mushrooms (%)			-	4	-	-	3	-
Pharm. stimulants (%)			-	2	-	2	-	5
MDA (%)			-	-	2	5	-	-
Mephedrone (%)			-	-	13	-	-	-
Methylone (%)			-	-	2	-	-	-
Heroin (%)			-	-	-	2	-	-
Other (%)			-	-	-	-	2	3
Protective barrier use under influence[#]	n=32	n=37	n=52	n=49	n=55	n=43	n=58	n=40
Always (%)	34	24	31	20	22	26	26	43
Never (%)	9	22	15	37	33	19	12	18
Inconsistent or rare use (%)	66	76	69	43	46	56	62	39
Ever sex health check (%)	n=100	n=95	n=99	n=99	n=100	n=75	n=100	n=75
No	51	37	38	33	29	20	28	45
Yes (in the last year)	32	40	40	45	52	56	43	25
Yes (more than 1 year ago)	17	22	21	21	19	24	29	27
Don't know	-	1	-	-	-	-	-	3
Ever diagnosed STI (%)	n=98	n=95	n=99	n=98	n=100	n=74	n=100	n=75
No	92	90	85	81	78	81	78	87
Yes (in the last year)	5	6	6	8	6	1	5	4
Yes (more than 1 year ago)	2	4	9	11	16	18	16	7
Don't know	1	-	-	-	-	-	1	3

Source: EDRS interviews

* of those who had sex with a casual partner in the last six months

of those who had sex with a casual partner while under the influence of alcohol/drugs in last six months

7.3 Driving risk behaviour

Fifty-one of the 76 REU interviewed in 2013 had driven a car during the six months preceding the interview (Table 60). One-quarter (26%) of recent drivers had driven while they perceived themselves to be over the legal alcohol limit during this time. The median frequency of driving over the limit was one occasion (range 1-20) in the last six months. Almost one-third (29%) had been random breath tested (once or more) during the previous six months, and 7% (n=1) were over the legal blood alcohol limit at least once during this time.

Over one-half (55%) of those that had recently driven a car had driven soon after taking a drug in the last six months, which is similar to the proportion in 2012 (47%). Of those who had driven under the influence of drugs, the median number of times in the last six months was eight (range 1-160) which is fewer than in 2012 (30 times, range 1-180) but similar to the years prior to 2012 (2-6 times). Of those who had driven under the influence in the last six months, the drugs most commonly used were cannabis (75%), ecstasy (14%), and methamphetamine powder (7%).

Over one-tenth (16%) reported that they had been saliva tested for drugs by police during the last six months. One-quarter of these (25%, n=2) reported a positive saliva test to cannabis during this time.

One-half (51%) of recent drivers indicated that saliva testing had changed their drug driving behaviour. Among those who had changed their behaviour, the most common changes in behaviour included: not driving after using drugs (65%), waiting for a few hours before driving (23%), using a taxi (15%), using a bus (12%) and organising another driver (12%).

REU were asked to estimate how many drivers would be caught out of the next 100 drivers who drive after taking drugs in Tasmania. A median of four out of 100 drivers (range 0-80) was estimated, with almost one-fifth (16%) estimating that none would be caught.

REU were asked to estimate how many they would drive after taking drugs in the next six months. A median of no occasions (range 0-100) was estimated, with two-thirds (65%) indicating 'no occasions'.

To account for any changes in the prevalence of drug use in the general population and among EDRS cohorts, trends in DUI of drugs can be examined by comparing the proportion reporting DUI among those who had recently used each substance in the last six months (see Figure 41). Overall, there has been decline in the proportion reporting DUI of ecstasy and methamphetamine between 2006 and 2013. DUI of cannabis declined between 2006 and 2009, increased in 2011 and has remained relatively stable since this time.

Those who had recently driven under the influence of ecstasy, cannabis or methamphetamine were asked further questions in regard to their perceived level of impairment on the last occasion that they had driven under the influence. Those who had last driven under the influence of cannabis (n=21) had done so less than one hour after taking the drug (range 0-4). A majority perceived that that it had had no impact on their driving (62%), or that their driving had been slightly impaired (19%), or slightly improved (19%). Sample sizes in relation to ecstasy and methamphetamine were too small for meaningful interpretation.

Table 60: Driving under the influence (DUI) of alcohol and other drugs among REU who had driven a car in the last six months, 2005-2013

Variable	2006 n=81	2007 n=76	2008 n=86	2009 n=87	2010 n=88	2011 n=65	2012 n=75	2013 n=51
Driven over legal alcohol limit last 6 mths (%)	48	37	49	59	48	37	47	26
Median times driven over legal limit last 6 mths (range) [#]	n=39 3 1-60	n=28 2 1-56	n=42 3 1-24	n=51 4 1-30	n=42 3 1-24	n=24 2 1-20	n=35 2 1-14	n=13 1 1-20
% breath tested last 6 mths If tested, % over limit (≥1)	n/a	38 7	40 -	56 15	61 7	50 -	40 10	29 7
% driven soon after taking any drug in last 6 mths	78	51	63	51	39	40	47	55
Median times DUI of drugs in last 6 mths (range) [*]	n=63 5 1-180	n=39 2 1-180	n=54 6 1-150	n=44 3 1-180	n=34 3 1-180	n=26 6 1-180	n=35 30 1-180	n=28 8 1-160
% saliva tested last 6 mths If tested, % tested positive	n/a	n/a	2 -	2 -	5 -	- -	11 -	16 25
Drugs DUI last 6 mths (%)* [^]	n=63	n=39	n=54	n=44	n=34	n=26	n=35	n=28
Cannabis	52	46	52	48	59	81	83	82
Ecstasy	89	85	83	71	62	27	51	25
Meth. powder	27	33	13	7	12	23	46	14
Meth. base	24	8	4	7	6	4	9	4
Crystal meth	10	-	2	9	-	4	3	4
Benzodiazepines	5	3	6	5	-	4	-	7
Psychedelic mushrooms	8	8	6	5	6	4	-	-
LSD	2	10	13	11	9	8	11	4
Amyl nitrite	-	3	4	-	-	-	-	-
Nitrous oxide	5	5	4	7	-	-	-	-
Cocaine	6	5	2	2	3	-	9	-
Ketamine	-	3	-	-	-	-	-	-
Other opioids	-	3	2	2	3	12	-	4
Pharmaceutical stimulants	2	-	2	-	-	-	-	4
GHB	2	-	-	-	-	-	-	-
Methadone	2	-	2	-	3	-	-	-
2CI/2CB/2CE	2	-	-	2	-	-	-	-
Mephedrone	-	-	-	-	12	-	-	-
Methylone	-	-	-	-	3	-	-	-
Heroin	-	-	-	-	-	8	-	4

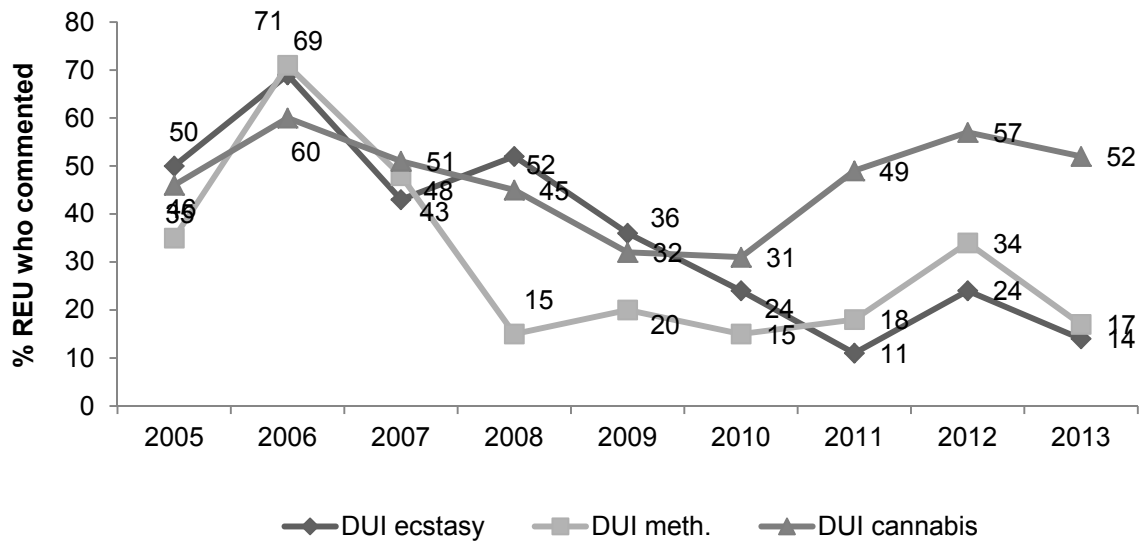
Source: EDRS interviews

[#] of those who had driven while over the legal limit of alcohol in the last six months

^{*} of those who had driven under the influence of drugs in the last six months

[^] drugs used on any occasion of DUI of drugs, not necessarily simultaneously

Figure 41: Proportion of REU who had DUI of ecstasy, methamphetamine and cannabis among those who had used each substance in the last six months, 2005-2013



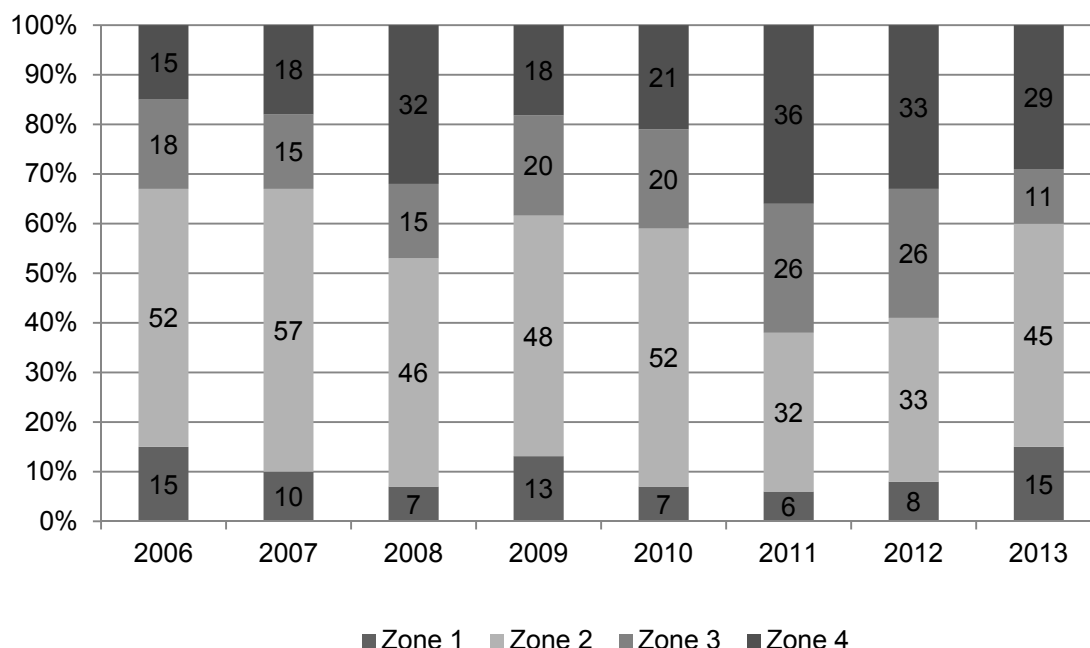
Source: EDRS interviews

7.4 AUDIT

REU also completed the AUDIT during interviews. The AUDIT was designed by the World Health Organization as a brief screening scale to identify individuals with alcohol problems, including those in early stages (Saunders et al., 1993). It is a 10-item scale, designed to assess three conceptual domains: alcohol intake, dependence, and adverse consequences (Reinert & Allen, 2002). Total scores of 8 or more are recommended as indicators of hazardous and harmful alcohol use, as well as possible alcohol dependence (Babor et al., 2001). Higher scores indicate greater likelihood of hazardous and harmful drinking; such scores may also reflect greater severity of alcohol problems and dependence, as well as a greater need for more intensive treatment (Babor et al., 2001).

The overall mean score on the AUDIT was 15.5 (median=14, range 2-36, SD=7.7). Of those REU who completed the AUDIT (n=75), a large majority (85%) scored 8 or more, a level at which alcohol intake may be considered hazardous. The total AUDIT score places respondents into one of four zones, or risk levels. Figure 42 shows the proportion of REU categorised within each of the AUDIT risk categories between 2006 and 2013. In 2013, just 15% of the REU that completed the AUDIT scored in zone 1 (a level reflecting low-risk drinking or abstinence). Just over two-fifths (45%) scored in zone 2 (alcohol use in excess of low-risk guidelines⁸), a further 11% scored in zone 3 (harmful or hazardous drinking) and 29% (95%CI 20-40%) scored in zone 4 (those in this zone may be referred to evaluation and possible treatment for alcohol dependence). The proportion categorised in zone 4 in 2013 was similar to the proportion in 2012 (33% 95%CI 25-43%).

Figure 42: Proportion of REU categorised with each AUDIT risk zone, 2006-2013



Source: EDRS interviews

⁸ It should be noted that this threshold for low-risk is based on standards employed in the 2007 NDSHS, which represents a threshold substantially higher than that specified by the National Health and Medical Research Council in their revised guidelines. However, the thresholds used in the Household Survey have been reported here in order to facilitate comparisons with such national indicators.

7.5 Binge drug use

Table 61 shows that one-third (33%) of the 2013 REU sample had recently binged on ERD (i.e., used them for more than 48 hours continuously without sleep). Those that had recently binged had done so on a median of two occasions (range 1-14) during the six months preceding the interview. The median length of the longest period of continuous use during this time was two days (range 2-4 days). Of those who had recently binged, the substances used most commonly during any one binge session of use were alcohol (88%), cannabis (72%), ecstasy (68%), methamphetamine (powder 44%; base 4%; crystal 20%), energy drinks (28%) and LSD (24%). A majority (72%) reported use of tobacco in a binge session of use. Among those who had used alcohol in a binge session of use, a majority (96%) reported typical use of more than five standard drinks in a binge session.

Table 61: Binge drug use among REU, 2006-2013

Variable	2006 n=98	2007 n=100	2008 n=96	2009 n=100	2010 n=100	2011 n=72	2012 n=100	2013 n=76
Binged on any stimulant drug last 6 mths (%) [#]	46	38	38	27	24	22	31	33
Median times binged in last 6 mths (range)*	3 (1-24)	3 (1-24)	2 (1-15)	2 (1-48)	2 (1-20)	2.5 (1-60)	2 (1-24)	2 (1-14)
Median length (days) biggest binge last 6 mths (range)*	2.5 (2-6)	2.5 (2-6)	2.3 (2-5)	2 (2-5)	2 (2-3)	2 (2-4)	2 (2-12)	2 (2-4)
Drugs used in binge session (%)*								
Ecstasy	93	100	92	96	79	63	87	68
Meth. powder	49	58	47	26	29	38	48	44
Meth. base	36	21	11	11	8	6	3	4
Crystal meth.	36	5	14	19	-	6	13	20
Pharm. stimulants	2	8	3	4	8	-	3	20
Cocaine	27	11	19	19	33	13	10	16
LSD	16	13	31	11	21	25	32	24
Ketamine	-	5	3	-	-	6	7	4
MDA	-	-	-	4	-	6	3	4
GHB	4	3	-	4	-	-	-	-
Amyl nitrite	2	8	3	4	4	-	3	16
Nitrous oxide	20	32	17	11	4	6	7	8
Cannabis	53	45	50	41	42	56	55	72
Alcohol	60	76	81	85	83	81	94	88
Benzodiazepines	-	-	-	-	8	6	3	20
Mushrooms	27	16	17	11	8	6	13	4
2CI	11	3	-	-	-	6	-	-
Other opioids	-	-	3	-	-	6	-	-
Mephedrone	-	-	-	-	33	-	-	4
Methylone	-	-	-	-	4	-	-	-
DOI	-	-	-	-	4	-	-	-
BZP	-	-	-	-	4	-	-	-
OTC codeine	-	-	-	-	-	6	-	-
Energy drinks	n/a	n/a	n/a	n/a	25	38	65	28
Other	-	-	-	-	-	-	6	12

Source: EDRS interviews

used for 48 hours continuously without sleep

* among those who had binged in the last six months

8.0 CRIMINAL ACTIVITY, POLICING AND MARKET CHANGES

Summary:

- **Criminal activity.** One-third (35%) of the 2013 REU sample reported taking part in any criminal activity in the last month. The most common crimes were drug dealing (21%) and property crime (19%). Over one-tenth (17%) of REU had been arrested during the preceding 12 months. Arrests were generally for non-drug related offences.
- **Arrests and seizures by Tasmania Police.** There was a substantial increase in the number of both consumer and provider arrests and seizures in relation to ecstasy between 2006/07 and 2009/10 relative to any previous years. Between 2010/11 and 2012/13 the number of arrests and seizures has been substantially lower than the years prior to this.
- The number of methamphetamine-related arrests increased substantially in the 2006/07 and 2007/08 periods. Following a reduction in arrests between 2008/09 and 2010/11, there was an increase in 2011/12 compared to 2010/11 (156 vs. 104). In 2012/13, there was a slight reduction in both consumer and provider arrests relative to 2011/12, with 120 arrests reported in total (79 consumers and 41 providers). The number of methamphetamine-related seizures increased gradually between 1999/00 and 2006/07, decreased or remained stable between 2006/07 and 2009/10, and increased or remained stable since this time. Over the past two years there have been a greater number of seizures (232-256 seizures) relative to the four years prior to this (111-169 seizures).
- The number of cannabis-related arrests was relatively stable between 2006/07 and 2010/11, but has decreased over the past two years. In contrast, the number and weight of seizures has remained relatively stable, with a slight increase in both the weight and number of seizures observed in 2012/13 relative to 2011/12.
- **Illicit drug diversions/cautions.** The total number of drug diversions or cautions and the number diverted to health interventions were substantially lower in 2010/11 compared to 2009/10. While this reduction was in part due to policy changes made in relation to offenders under the age of 18 in accordance with the *Youth Justice Act 1997*, there were further reduction in total diversions/cautions in 2011/12 (869 diversions) and 2012/13 (778 diversions) relative to 2010/11 (1,132 diversions). A majority of diversions were in relation to cannabis with less than 10 reported for ecstasy over the past three years.
- **Drug-related charges in Tasmanian courts.** There has been a downward trend in the total number of drug-related offences over the past two reporting periods. This decline is largely due to decreases in the number of offences relating to the possession of illicit drugs (188 individuals in 2010/11 compared to 116 in 2012/13), dealing/trafficking of illicit drugs (114 individuals in 2010/11 compared to 65 in 2012/13), and the cultivation of illicit drugs (107 individuals in 2010/11 compared to 73 in 2012/13). The number of individuals incarcerated at Hobart Prison in relation to drug offences was also considerably lower in 2012/13 (47 individuals) compared to 2011/12 (81 individuals).
- **Tasmanian roadside drug testing data.** A consistent number of random drug tests have been conducted on Tasmanian roads over the last three reporting periods, with 1,698 tests conducted in 2012/13. Over the last two reporting periods, the proportion of negative tests results have been lower relative to 2010/11, with two-thirds of tests (69%) returning negative results in 2012/13.
- Cannabis was the most commonly detected drug, with 57% of all OFT tests and 76% of all blood tests returning positive results. Positive results for amphetamine were also common in both OFT (44%) and blood tests (33%), while methamphetamine was more commonly detected in blood tests relative to OFT (39% vs. 17%). Few OFT or blood tests returned a positive result for the presence of MDMA/ecstasy.

8.1 Reports of criminal activity among REU

Just over one-third (35%) of the 2013 REU sample self-reported engaging in some type of crime within the last month (Table 63).

One-fifth (21%) reported dealing drugs for cash profit, with the majority doing so on a less than weekly basis in the last month (n=11), and few (n=3) doing so on a weekly basis or more often (n=2). On the last occasion of drug dealing, 36% reported that they were under the influence of drugs at the time (80% cannabis, 40% ecstasy, 40% >5 standard drinks of alcohol, 20% methamphetamine). The main reasons for drug dealing on the last occasion were: to help a friend out (50%) and financial reasons (36%).

Just under one-fifth (19%) reported committing a property crime in the last month. The majority of those that had recently committed property crime had done so on a less than weekly basis (n=9), with few committing property crime weekly (n=2), or more frequently (n=3). On the last occasion of committing a property crime, 31% (n=3) reported that they were under the influence of drugs at the time (33% methamphetamine, 33% cannabis, 33% alcohol). The main reason for committing property crime was financial reasons (64%).

Smaller proportions of the sample reported committing fraud (3%) or violent crime (3%) during the last month.

More than one-tenth of the sample (17%) had been arrested during the 12 months preceding the interview. These participants had been arrested for a variety of offences (see Table 62). Few participants had been arrested for alcohol or drug-related offences.

Table 62: Criminal activity reported by REU, 2005-2013

	2005	2006	2007	2008	2009	2010	2011	2012	2013
	n=100	n=100	n=100	n=100	n=100	n=100	n=75	n=100	n=76
Any criminal activity in last month (%)	15	26	28	28	24	24	28	26	35
Drug dealing	8	21	24	24	18	15	11	18	21
Property crime	4	5	11	6	11	8	15	12	19
Fraud	3	3	1	2	1	-	5	6	3
Violent crime	2	1	5	2	1	5	3	2	3
Arrested last 12 months (%)	9	8	10	6	10	13	16	14	17
Property crime	1	1	1	-	3	-	4	3	1
Drug use/possession	1	1	1	1	3	2	3	-	-
Violent crime	1	1	2	-	1	-	1	1	3
Dealing/trafficking	2	-	-	-	1	1	-	-	1
Driving offence	-	-	-	-	2	-	1	-	-
DUI alcohol	2	2	3	2	3	4	1	3	3
DUI drugs	1	-	-	-	1	-	-	-	-
Other reason	2	2	5	4	4	8	9	8	11

Source: EDRS interviews

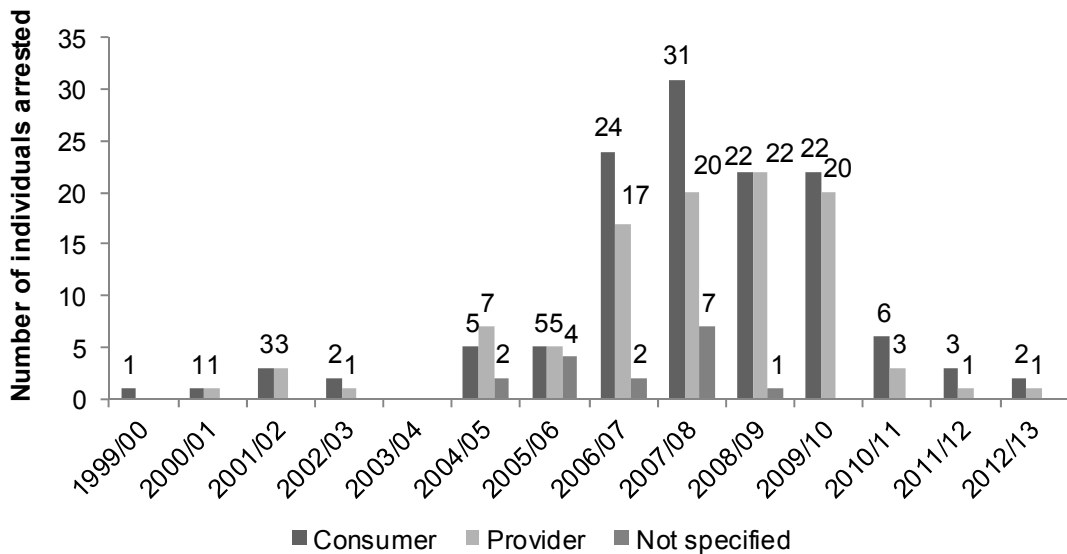
8.2 Drug-related arrests and seizures made by Tasmania Police

8.2.1 Ecstasy

Figure 43 shows 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 2012/13. There were few ecstasy-related police incidents between the 1999/00 and 2005/06 financial years. A substantial increase in the number of ecstasy-related arrests can be seen between 2006/07 and 2009/10 relative to all previous years. In 2010/11 and 2011/12 there was a substantial decrease in the number of both consumer and provider arrests relative to recent years and this trend continued in 2012/13 with just three ecstasy-related arrests reported (two consumer and one provider)⁹.

Figure 44 shows that there were no ecstasy tablets seized by Tasmania Police prior to the 1999/00 financial year. Since this time the number of tablets and the number of seizures have increased, with considerable increases observed in the number and total weight of seizures in the 2003/04 and 2006/07 reporting periods and a substantial increase in the total number of tablets seized during the 2008/09 period (4,478 tablets). In 2009/10 there was a considerable decrease in both the number of seizures and the total number of tablets seized and the number of seizures continued to reduce substantially in 2010/11 and 2011/12. In 2012/13, the number of seizures and the total number of tablets seized was slightly higher with a total of 144 tablets/capsules seized across 10 seizures¹⁰.

Figure 43: Number of police incidents recorded for ecstasy possession/use (consumers) and deal/traffic (providers), 1999/00-2012/13



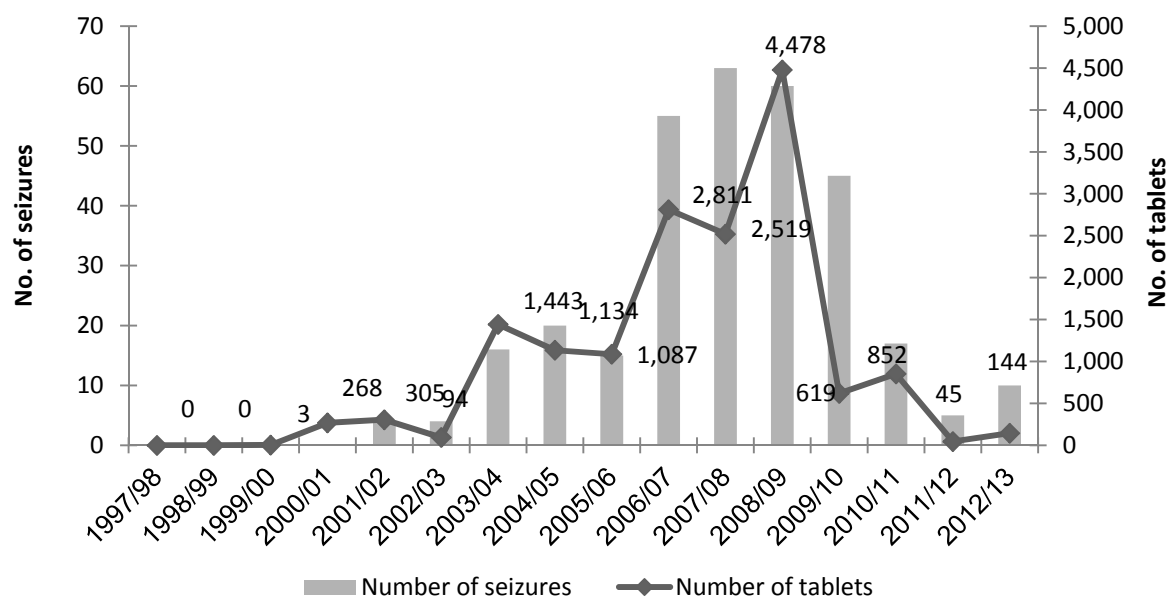
Source: State Intelligence Services, Tasmania Police

Note: Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

⁹ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

¹⁰ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

Figure 44: Total number of tablets suspected to contain ecstasy seized by Tasmania Police, 1997/98-2012/13



Source: State Intelligence Services, Tasmania Police

Note: Number of seizures was not available for the 1999/00 and 2000/01 periods; data includes only those seizures that were recorded in tablet/capsule form; totals may differ from those reported in the Department of Police and Emergency Management and ACC annual reports due to differences in counting rules

8.2.2 Methamphetamine

Arrest data for methamphetamine-related offences indicate a marked increase in the total number of arrests in 2006/07 and 2007/08 (177-179 arrests) relative to previous years (28-89 arrests) (Table 63). While a reduced number of arrests was reported between 2008/09 and 2010/11 (104-128 arrests) an increase in the total number of arrests was reported in 2011/12 (161 arrests). This increase was largely attributable to an increase in the number of consumer arrests, with 100 arrests reported compared to 56 in 2010/11. In 2012/13, there was a slight reduction in both consumer and provider arrests relative to 2011/12, with 120 arrests reported in total (79 consumers and 41 providers)¹¹.

Tasmania Police seizures (Figure 45) of drugs suspected to be methamphetamine have varied somewhat in recent years. There were notable increases in both the weight and number of seizures between 2001/02 and 2006/07 (seizures for 2005/06 were only reported to ACC for part of the financial year). The number of methamphetamine seizures decreased between 2006/07 and 2009/10 with a large peak in the weight of seizures observed in 2008/09. Since 2009/10 the number of seizures has increased or remained stable, with a decline in the total weight of seizures observed over the past two years. In addition to the 232 seizures coded in grams in 2012/13 (Figure 45), there were eight seizures totalling 332 tablets, two seizures totalling 23 capsules and two seizures totalling five units of powder¹².

¹¹ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

¹² 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

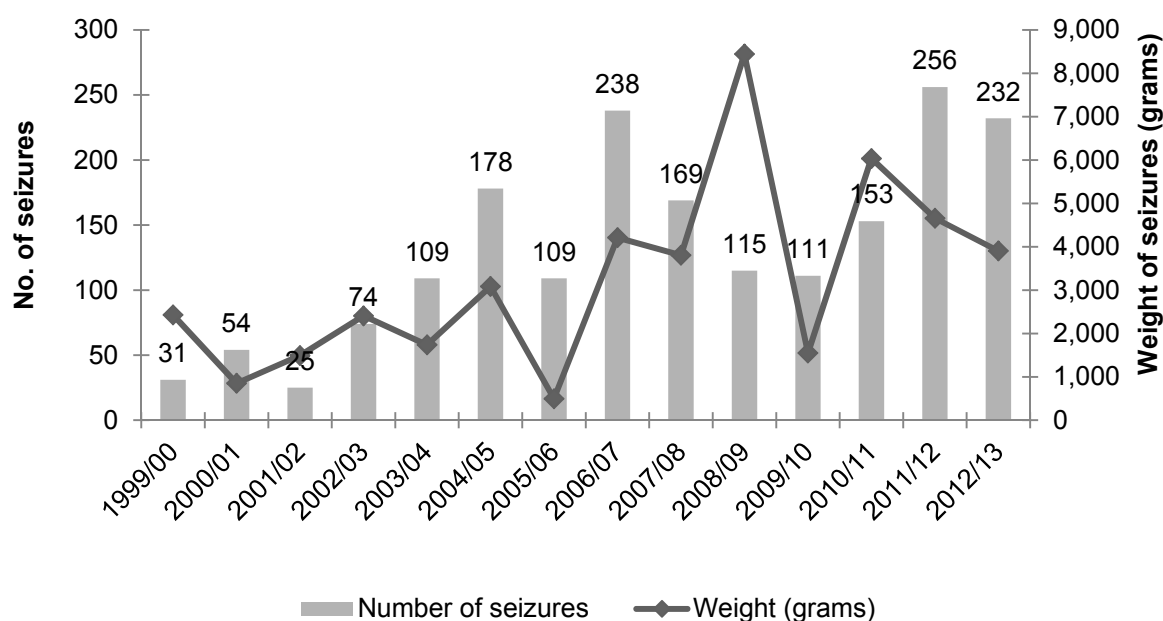
Table 63: Consumer and provider arrests for methamphetamine and related substances, 1999/00-2012/13

	1999 /00	2000 /01	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11	2011 /12	2012 /13
Consumer	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Female	4	9	18	8	10	9	10	24	26	10	16	12	23	18
Male	14	51	53	34	21	34	33	84	81	37	61	44	77	61
Unknown	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	20	60	71	42	31	43	43	108	107	47	77	56	100	79
Provider														
Female	0	1	6	2	1	3	9	14	13	7	9	5	8	8
Male	7	9	12	17	7	23	25	55	57	61	42	40	53	33
Unknown	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	8	10	18	19	8	26	34	69	70	68	51	45	61	41
Total Arrests	28	70	89	66	39	69	83	179	177	117	128	104	161	120

Source: ACC and State Intelligence Services, Tasmania Police

Note: 2012/13 data were provided by Tasmania Police State Intelligence Service and are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules. Cases here relate to both arrest and summons charges. '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. The sum of consumer and provider arrests may not equal total arrests due to missing data.

Figure 45: Weight and number of methamphetamine seizures made by Tasmania Police, 1999/00-2012/13



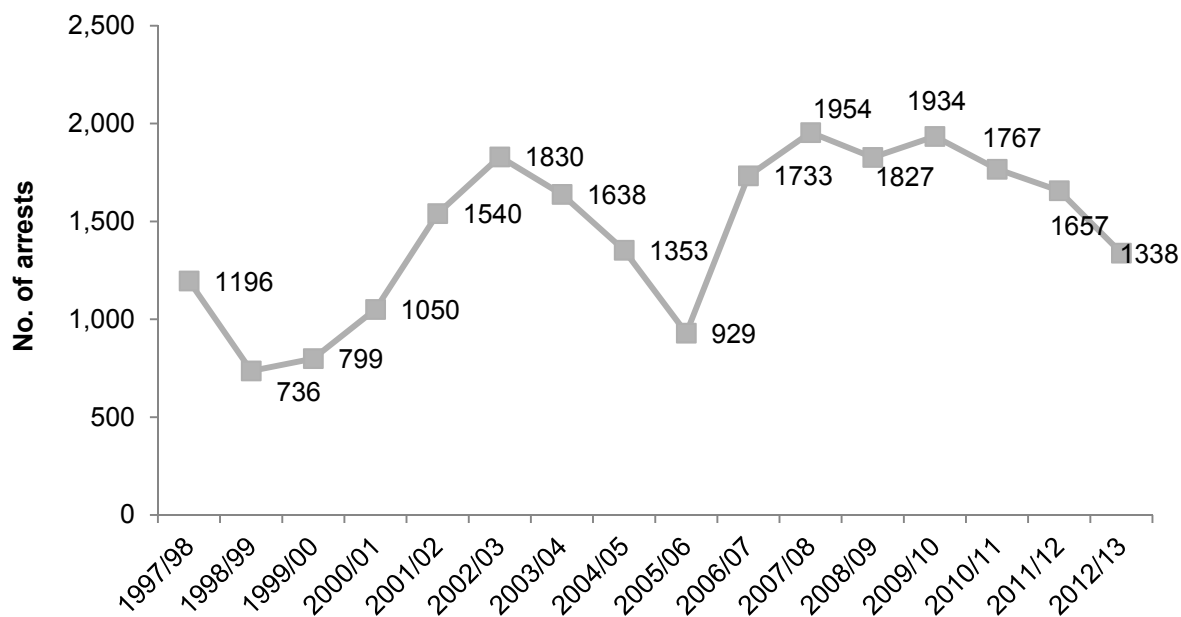
Source: ACC and State Intelligence Services, Tasmania Police

Note: Seizures for 2005/06 were only reported to the ACC for part of the financial year. 2012/13 data were provided by Tasmania Police State Intelligence Service, include only seizures weighed in grams, and are preliminary and subject to revision. In 2012/13 there were an additional 12 seizures coded in units other than grams. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

8.2.3 Cannabis

Figure 46 shows the number of cannabis-related arrests made by Tasmania Police between 1997/98 and 2012/13. Cautions and arrests relating to cannabis increased steadily from 736 in 1998/99 to 1,830 in 2002/03. This trend reversed in 2003/04, declining to 929 cases in 2005/06 (although arrests for 2005/06 were only reported to the ACC for part of the financial year). A substantial increase in cannabis-related arrests was observed in 2006/07 and rates remained relatively stable until notable decreases were observed in 2011/12 and 2012/13¹³.

Figure 46: Number of arrests (including cautions and diversions) for cannabis-related offences in Tasmania, 1997/98-2012/13



Source: ACC and State Intelligence Services, Tasmania Police

* arrests for 2005/06 were only reported to the ACC for part of the financial year

Note: 2012/13 data were provided by State Intelligence Services and are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

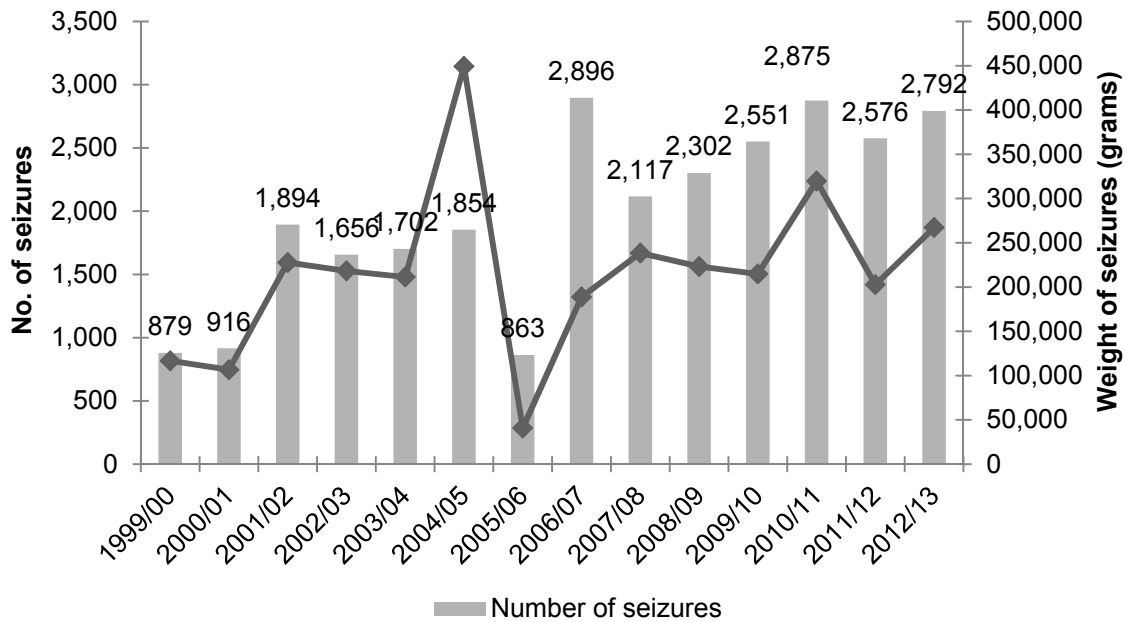
Figure 47 shows cannabis seizures made by Tasmania Police, between 1999/00 and 2012/13. The volume of cannabis seized has remained relatively stable over time, with notable peaks observed in 2004/05 and 2010/11. There was a gradual increase in the number of seizures between 2007/08 and 2010/11, and a slight decline in 2011/12. In 2012/13 there was an increase in both the weight and number of seizures relative to 2011/12. In addition to the seizures coded in grams in 2012/13 (Figure 47), Tasmania Police reported an additional 571 seizures including 465 seizures of plants (totalling 3,087 plants)

¹⁴

¹³ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

¹⁴ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

Figure 47: Seizures of cannabis by Tasmania Police, 1999/00-2012/13



Source: ACC and State Intelligence Services, Tasmania Police

Note: Seizures for 2005/06 were only reported to the ACC for part of the financial year. Data in 2012/13 were provided by Tasmania Police State Intelligence Service, includes only plant-related seizures that were weighed in grams, and are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

8.2.4 Cocaine

Tasmania Police have reported few seizures or arrests in relation to cocaine between the 1999/00 and 2012/13 financial years (Table 64). In 2012/13 reporting period there was no seizures or arrest in relation to cocaine¹⁵.

Table 64: Consumer and provider arrests for cocaine, 2000/01-2012/13

	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Arrests (n)													
Consumer	2	1	0	0	0	0	0	0	1	1	0	1	0
Provider	0	0	0	0	0	0	1	0	0	2	1	1	0
Total	2	1	0	0	0	0	1	0	1	3	1	2	0
Seizures (n)	1	0	0	0	0	1	2	0	2	3	3	7	0
Weight (g)	1	0	0	0	0	1	7	0	7	46	28	64.6	-

Source: ACC and State Intelligence Services, Tasmania Police

Note: 2012/13 data were provided by Tasmania Police State Intelligence Service and are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

8.2.5 Hallucinogens

ACC data for hallucinogens includes tryptamines such as LSD and psilocybin (mushrooms). There have been a small number of arrests and seizures in Tasmania in relation to

¹⁵ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

hallucinogens between 1999/00 and 2011/12 (Table 65). In the 2012/13 period Tasmania police reported three provider arrests in relation to LSA and five seizures of LSA totalling 174 tabs (Table 65)¹⁶.

Table 65: Consumer and provider arrests for hallucinogens, 2000/01-2012/13

	2000/ 01	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007 /08	2008/ 09	2009/ 10	2010/ 11	2011/ 12	2012/ 13
Arrests (n)													
Consumer	1	0	0	1	0	1	1	1	2	7	6	1	0
Provider	0	1	1	0	1	2	1	2	0	1	2	2	3
Total	1	1	1	0	1	3	2	3	2	8	8	3	3
Seizures (n)	0	0	0	1	3	0	2	1	2	1	3	0	5

Source: ACC and State Intelligence Services, Tasmania Police

Note: 2012/13 data were provided by Tasmania Police State Intelligence Service and are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

8.2.6 Ketamine

There are few objective data on seizures and arrests in relation to ketamine in Tasmania as it is not listed as a separate drug in the illicit drug data reports (ACC). However, drug-specific data provided by Tasmania Police indicates that there was one seizure of 1.5 grams of ketamine in 2005/06.

8.2.7 GHB

There are 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 (ACC). In 2010/11, a single seizure of 1,000 ml of GHB was reported by Tasmania Police.

8.2.8 MDA

The ACC reports seizures and arrests for drugs classed as phenethylamines which includes MDMA (ecstasy) as well as 3,4-methylenedioxyethylamphetamine (MDEA), 3,4-methylenedioxyamphetamine (MDA) and paramethoxyamphetamine (PMA). Thus, there are no data from Tasmania Police that relate specifically to MDA, though it is possible that some MDA-related seizures and arrests are inadvertently reported in relation to ecstasy.

8.3 Illicit drug diversion data

The Tasmanian IDDI, which primarily but not exclusively relates to cannabis consumer offences, has been well supported by police, with well in excess of 1,000 diversions made per annum between 2002/03 and 2006/07 (Figure 48). A notable increase in diversions was apparent in 2007/08 (1,681 diversions) with this level maintained in the subsequent reporting periods (1,528-1,609). There was a reduction in the total number of diversions between 2009/10 (1,609 diversions) and 2010/11 (1,132 diversions).

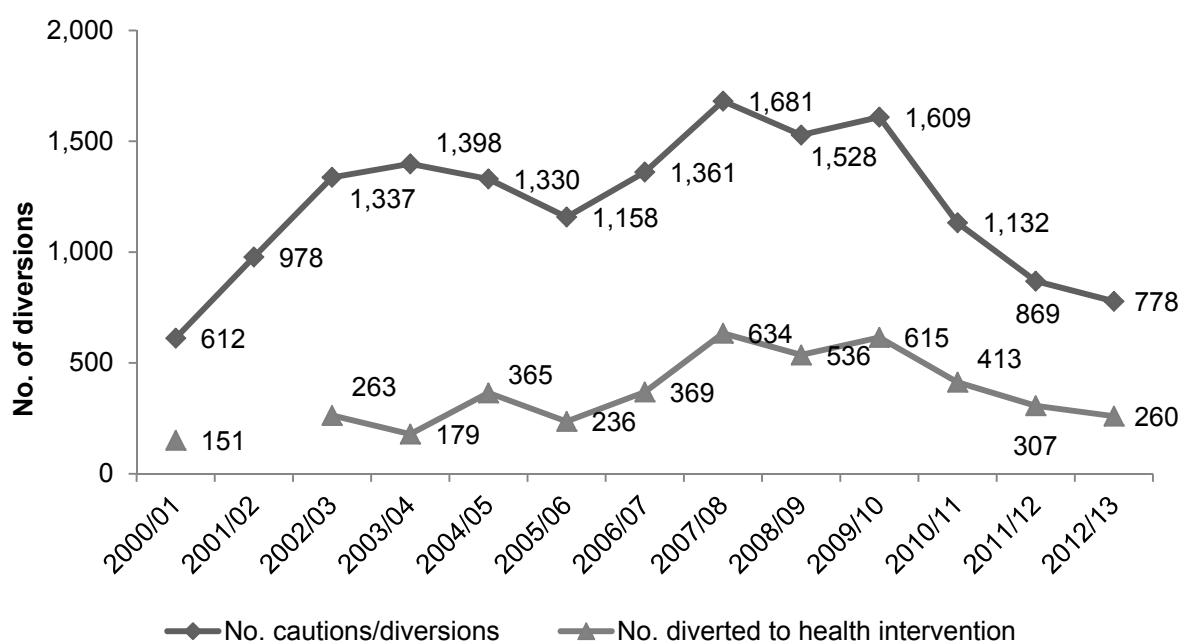
The reductions observed in 2010/11 were in part due to a change in the way IDDI cautions and diversions were made: at the end of 2010, following advice from the Solicitor General, Tasmania Police made a policy decision that minor drug offenders under the age of 18 years would be dealt with in accordance with the *Youth Justice Act 1997* and encouraged to access appropriate health interventions, but would not be included in IDDI. As a result, data from the second half of the 2010/11 does not include persons less than 18 years of age.

¹⁶ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

Since 2010/11 there have been further reductions in both the total number of diversions (869 in 2011/12 vs. 778 in 2012/13)¹⁷ and in the number of second-level and third-level diversions (to health interventions) (307 in 2011/12 vs. 260 in 2012/13).

While the majority of diversions were for cannabis-related offences, there were six diversions in relation to ecstasy in the 2012/13 reporting period compared to five in 2011/12, eight in 2010/11, and 25 in 2009/10.

Figure 48: Drug diversions or cautions issued state-wide by Tasmania Police, 2000/01-2012/13



Source: Department of Police & Emergency Management Corporate Reporting Services, Annual Corporate Performance Reports – Total District Drug Diversions; Alcohol & Drug Service

Note: These figures may differ from data submitted to the ACC if the decision to charge persons was altered to a caution after the figures were forwarded to State Intelligence Services Arrests and cautions for 2005/06 were only reported for part of the financial year; missing data reflects cases where the relevant data were not provided to the authors.

8.4 Drug-related charges in Tasmanian courts

There has been a downward trend in the total number of drug-related offences over the past two years (Figure 49). This decline is largely due to decreases in the number of offences relating to the possession of illicit drugs (188 individuals in 2010/11 compared to 116 in 2012/13), dealing/trafficking of illicit drugs (114 individuals in 2010/11 compared to 65 in 2012/13), and the cultivation of illicit drugs (107 individuals in 2010/11 compared to 73 in 2012/13).

The number of individuals incarcerated at Hobart Prison in relation to drug offences in 2012/13 (47 individuals) was also considerably lower compared to 2011/12 (81), as was the number of offences among those incarcerated (237 in 2011/12 compared to 111 in 2012/13 (Table 66). Data relating to drug-related offences before the Supreme Court were not available for inclusion in the present report.

¹⁷ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

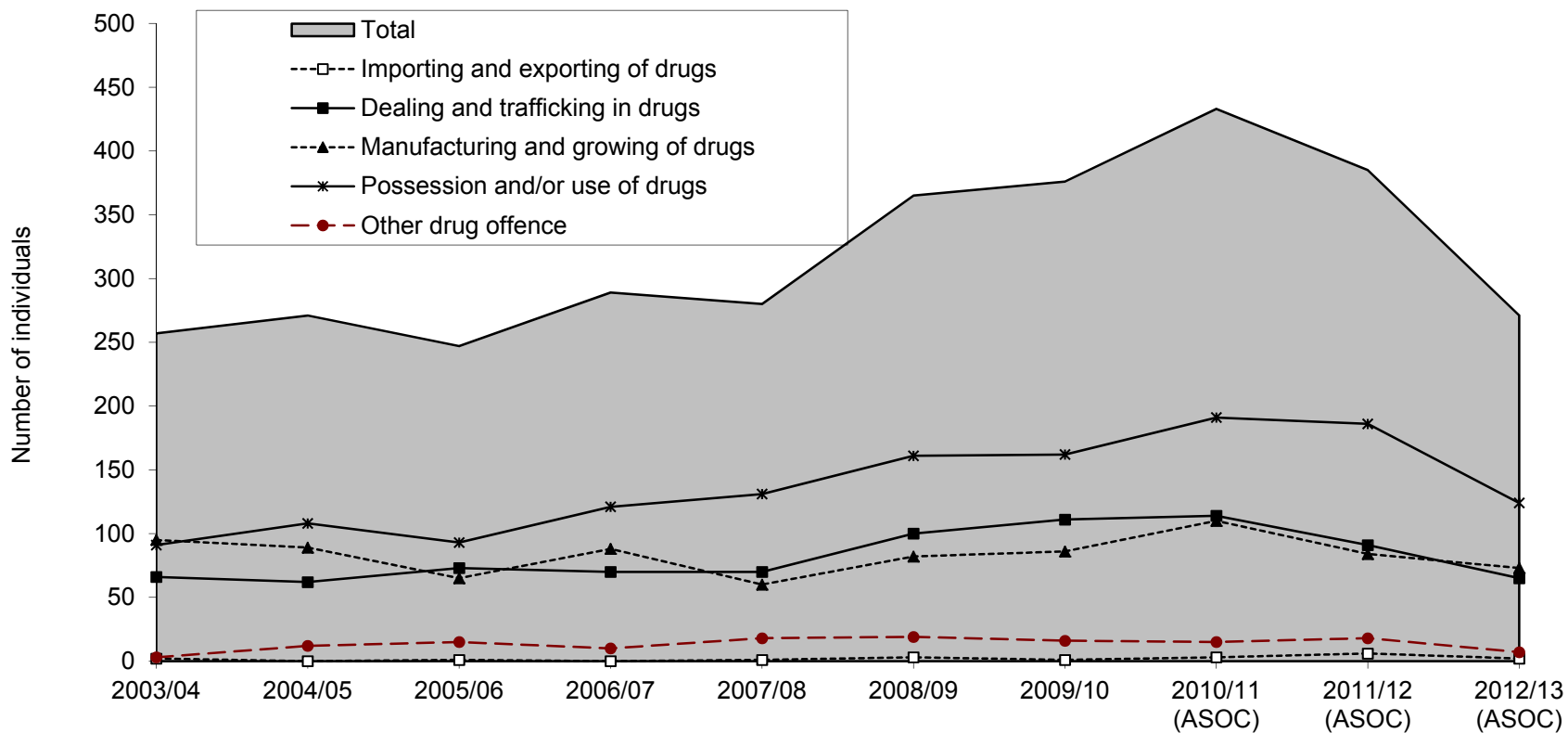
Table 66: Number of individuals before Tasmanian courts or imprisoned on drug charges, 2003/2004-2012/13

	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11	2011 /12	2012 /13
HOBART MAGISTRATES COURT*										
No. individuals (alleged no. of offences):										
Import/export of illicit drugs	2 (2)	0 (0)	1 (1)	0 (0)	1 (1)	3 (4)	1 (1)	3 (3)	6 (13)	2 (6)
Deal or traffic in illicit drugs - commercial quantity	28 (39)	35 (45)	38 (59)	42 (62)	53 (72)	60 (72)	55 (90)	66 (98)	48 (66)	42 (66)
Deal or traffic in illicit drugs - non-commercial quantity	38 (107)	27 (98)	35 (76)	28 (71)	17 (38)	40 (84)	56 (106)	48 (103)	43 (90)	23 (67)
Manufacture of illicit drugs	5 (9)	3 (4)	1 (2)	0 (0)	1 (1)	0 (0)	0 (0)	3 (4)	1 (3)	0 (0)
Cultivation of illicit drugs	90 (111)	86 (105)	64 (78)	88 (104)	59 (77)	82 (100)	86 (99)	107 (143)	83 (103)	73 (87)
Possession of illicit drug	88 (518)	106 (564)	91 (440)	120 (561)	129 (494)	151 (653)	159 (677)	188 (843)	179 (746)	116 (660)
Use of illicit drug	3 (39)	2 (39)	2 (41)	1 (50)	2 (51)	5 (71)	3 (81)	3 (90)	7 (85)	8 (93)
Other Illicit drug offences	3 (122)	12 (135)	15 (129)	10 (150)	18 (151)	19 (184)	16 (169)	15 (214)	18 (191)	7 (150)
HOBART PRISON^										
No. individuals incarcerated	36	55	57	56	n/p	84	53	80	81	47
No. of offences among those incarcerated	83	101	117	128	144	165	121	183	237	111

Sources: Hobart Magistrates Court (Magistrates Court data); Corrective Services (Prison data), Department of Justice, Tasmania

*Hobart Magistrates court data does not include individuals brought before the youth court. ^The number of incarcerations refers to cases presented before both the Supreme and Magistrates courts;

Figure 49: Number of individuals before the Hobart Magistrates Court for drug-related offences, 2003/04-2012/13



Source: Hobart Magistrates Court

8.5 Tasmanian roadside drug testing data

Roadside drug testing was introduced in Tasmania in 2005. Drivers who are selected for drug-testing are required to provide a saliva sample, returning a result in approximately five minutes. Drivers who test positive are then requested to provide a blood sample for confirmation of this result. In Tasmania, drivers are typically tested for cannabis, amphetamine and MDMA. A consistent number of random drug tests have been conducted on Tasmanian roads over the last three reporting periods (Table 67). Over the last two reporting periods, the proportion of negative tests results have been lower relative to 2010/11, with two-thirds of tests (69%) returning negative results in 2012/13¹⁸.

Table 67: Tasmania Police roadside drug testing statistics, 2010/11-2012/13

	2010/11	2011/12	2012/13
Number of random drug tests conducted	1,427	1,678	1,698
Proportion of drivers tested who returned negative tests for prohibited drugs (%)	73.4	65.3	69.1

Source: Department of Police and Emergency Management Annual Reports

Table 68 shows the number of positive drug screens conducted by Tasmania Police for drug driving in 2011/12. It is important to note that in some cases an individual tested positive to both tests; whilst in some cases individuals tested negative to the initial oral fluid test (OFT) and positive to the blood test. Additionally, as the OFT is a screening test, at times this may return a false-positive result. In 2012/13¹⁹, 480 (out of 1,698) roadside drug tests and 498 (out of 523) blood tests returned a positive result. Cannabis was the most commonly detected drug, with 57% of all OFT tests and 76% of all blood tests returning positive results. Positive results for amphetamine were also common in both OFT (44%) and blood tests (33%), while methamphetamine was more commonly detected in blood tests relative to OFT (39% vs. 17%). Few OFT or blood tests returned a positive result for the presence of MDMA/ecstasy.

¹⁸ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

¹⁹ 2012/13 data are preliminary and subject to revision. Totals may differ from those reported in the Department of Police and Emergency Management annual report due to differences in counting rules.

Table 68: Tasmania Police positive roadside drug test results, 2011/12-2012/13

	<i>Oral Fluid Testing</i>		<i>Blood Testing</i>	
	2011/12 n=537	2012/13 n=480	2011/12 n=565	2012/13 n=498
Amphetamine (%)	44	44	33	33
Cocaine (%)	4	3	<1	-
Methamphetamine (%)	7	17	42	39
Cannabis (%)	64	57	73	76
Ecstasy (MDMA) (%)	-	-	<1	2
Opiates (%)	5	8	7	5
Benzodiazepines (%)	n/a	n/a	5	7
Ketamine	n/a	n/a	-	2

Source: Tasmania Police State Intelligence Services.

Note: Multiple drugs may be indicated on one oral fluid or blood test. Differences between OFT and blood test results may be due a negative OFT but positive blood test and positive blood tests returned after breath rather than saliva testing. These results are preliminary and are subject to change, and in some instances further analysis on tests was being conducted at the time of publication.

9.0 SPECIAL TOPICS OF INTEREST

Summary:

- **Exposure to injecting:** Almost three-fifths (58%) of REU reported knowing friends or acquaintances who had ever injected illicit drugs and one-third of REU (32%) had been offered drugs to inject in the last 12 months. One-tenth of REU (9%) had seriously considered injecting a drug. The main reasons that people would consider injecting a drug were out of curiosity and to get a stronger drug effect. The main reasons for not injecting drugs included: not liking this route of administration, social stigma associated with injecting, and fear of needles.
- **NPS Health Module:** The strongest motivating factors associated with mephedrone use were the low availability of alternative drugs and good value for money. Consistent with the illegal status of mephedrone in Hobart and the fact that it is not typically purchased online, legality of mephedrone and its availability on the internet were not strong motivating factors.
- At least two-fifths of those who had used mephedrone in the last six months reported signs of drug tolerance. The most common symptoms of tolerance were: taking in larger amounts than intended (44%), continued to use despite physical or psychological problems (41%), feeling that the usual dose did not have the same effect (39%), a persistent urge to take the drug (33%) and spending a great deal of time getting, taking or recovering from use (33%).
- Symptoms that REU reported having most of the time while under the influence of mephedrone included: the urge to talk (89%), increased energy (89%), clenching jaw or grinding teeth (83%), euphoria (78%), the urge to move (78%), difficulty sleeping (72%), empathy with others (67%), lack of appetite for food (61%), and body sweating (56%). In addition, the urge to talk, urge to move, jaw clenching/teeth grinding, inability to sleep, and lack of appetite were reported to be particularly intense in nature. While three-fifths (61%) had never experienced feelings of panic, these feelings were reported to be particularly intense among those who had experienced them.
- In the days following mephedrone use, around three-fifths (61%) reported that 'most of the time' they felt tired/fatigued, around one-third (33%) reported feeling anxious and one-quarter reported feeling depressed (28%) and emotional/tearful (28%). These symptoms were reported to be particularly intense among one-third or more of those who had experienced depression (42%) tiredness/fatigue (35%) and anxiety (31%).

9.1 Exposure to injecting

The aim of this module was to investigate the experiences with and attitudes toward the practice of injecting among EDRS participants. While the rate of injecting drug use among Tasmanian EDRS participants has remained relatively low and stable over time (between 8% and 22% report ever injecting a drug between 2004-2013), identifying exposure to injecting and attitudes towards the practice of injecting could have important harm reduction implications in the future.

The majority of participants indicated that a few (55%) or none (39%) of their friends/acquaintances had injected a drug illicitly. Smaller proportions indicated that most (3%) or about half (1%) of their friends/acquaintances had injected a drug illicitly. When asked about exposure to injecting in the last 12 months, three-quarters (75%) reported that a friend/acquaintance had injected a drug and smaller proportions reported that a family member (9%) or partner (5%) had injected a drug. Three-fifths (61%) of those who knew someone who had injected reported that they had been in the same room or general space when their friends/acquaintances injected a drug (Table 69).

Almost one-third (32%) of the sample reported that they had been offered drugs to inject in the previous 12 months, and one-tenth (9%) reported that they seriously considered injecting a drug or had already injected a drug (17%) (Table 69). When asked about the likelihood of injecting a drug in the future on a scale of 1-10 (where 1 means extremely unlikely and 10 means extremely likely), almost two-thirds (65%) of the sample reported that it would be extremely unlikely and a small proportion (5%) reported that it would be extremely likely that they would inject a drug in the future.

Table 69: Exposure to injecting, 2013

	2013
Proportion of friends/acquaintances ever injected an illicit drug	n=75
Most	3
About half	1
A few	55
None	39
I don't know	3
Who do you know who has injected in the past 12 months	n=44
A friend/acquaintance (%)	75
Partner (%)	5
A (non-partner) family member (%)	9
No one (%)	23
Friends/Acquaintances ever injected around you	n=44
Yes (%)	61
No (%)	39
Have you been offered drugs to inject in the last 12 months	n=75
Yes (%)	32
No (%)	68
Have you ever seriously considered injecting a drug	n=75
Yes (%)	9
No (%)	73
I have already injected a drug (%)	17

Source: EDRS interviews

Participants were asked about their attitudes toward the practice of injecting drugs and the reasons for considering to inject and not to inject a drug. Around two-fifths (37%) reported that they would not consider injecting a drug and smaller proportions reported that the main reason for considering injecting a drug would be curiosity (21%) and to have a stronger drug effect (21%). Around one-third (30%) of the sample reported that the main reason for not injecting a drug was because it was not the preferred route of administration. Smaller proportions reported the main reason for not injecting a drug was the social stigma associated with injecting (15%), fear of needles (10%), not using drugs that are injectable (5%), and concerns about dependence (4%) (Table 71).

Table 70: Reasons for considering injecting a drug, 2013

What would be your main reason for injecting a drug?	n=75
Would not consider (%)	37
Curiosity (%)	21
To have a stronger drug effect (%)	21
Get high/have fun (%)	4
Peer pressure/influence (%)	9
Preferred route of administration (%)	1
Other (%)	5
What would be your main reason for not injecting a drug?	n=75
Fear of needles (%)	10
Not my preferred ROA (%)	30
Don't use drugs that are injectable (%)	5
Concerns about dependence (%)	4
Social stigma associated with injecting (%)	15
Concerns about BBVI's (%)	3
I will continue to inject no matter what (%)	7
Concern about injection related injury (%)	1
I don't know how to inject myself (%)	1
No access to injecting equipment (%)	3
Other (%)	22

Source: EDRS interviews

9.2 NPS Health Module

New psychoactive substances such as mephedrone, 2CB, MDPV and methylone are an issue due to the relatively short history of use compared to traditional illegal drugs. As drug manufacturers continually adapt their products to evade legislative control, little is known about the effects of and risks associated with NPS. In the last six months one-quarter (24%) of the Tasmanian EDRS sample had used mephedrone and smaller proportions reported using 2CB (5%), MDPV (4%) and methylone (1%). It is important that the effects and risks of NPS use are continually monitored to improve our understanding of these drugs, to minimise harm and educate users. This module aims to investigate the motivations for using four common NPS (mephedrone, 2CB, MDPV, methylone), the addictive properties of these drugs and the feelings experienced both during and in the days following mephedrone use. Due to small numbers reporting use of 2CB (n=4), MDPV (n=3) and methylone (n=1), only figures for mephedrone are reported.

Participants were asked to rate some motivating factors to mephedrone use on a scale of 0-10, where 0 was equal to no influence on drug use and 10 was equal to maximum influence on drug use. The results are presented as the proportion of participants rating each factor as low (rated as 1-5), high (rated as 6-10) or no influence (rated as 0) on mephedrone use. The majority of the sample gave a high rating to 'there was no other drug available at the time' (71%) and 'it was good value for money (70%)' as motivating factors. Smaller proportions rated 'higher purity compared to traditional illegal stimulants' (41%) and 'better high compared to traditional illegal stimulants' (42%) as highly motivating factors, however similar proportions (35% and 47% respectively) also rated these factors as having no influence. The factors which were rated by the majority of the sample as no influence on mephedrone use were 'it was legal to buy it' (88%), 'easy to buy on internet and delivered' (82%) and 'a single dose doesn't last too long' (77%) (Table 71).

Table 71: Factors rated as having no influence (0), low (1-5) influence or high (6-10) influence on mephedrone use, 2013

Motivating factors to mephedrone use (n=17)	No influence	Low influence	High influence
Legal to buy it (%)	88	12	0
Easy to buy on the internet and delivered to home (%)	82	6	12
High purity compared to traditional illegal stimulants (%)	35	24	41
Good value for money (%)	12	18	70
Better high compared to traditional illegal stimulants (%)	47	12	42
Fewer side effects than traditional illegal stimulants (%)	53	24	24
Single dose doesn't last too long (%)	77	12	12
No other drug available at the time (%)	18	12	71

Source: EDRS interviews

While there is little research regarding the possibility of mephedrone addiction or drug dependence there is some evidence that mephedrone induces strong feelings of cravings in most users (Brunt et al., 2010; Measham et al., 2010). Participants were asked whether they experienced signs of increased drug tolerance. Around two-fifths reported that they had taken the drug in larger amounts than they had intended (44%), continued to take the drug despite physical or psychological problems (41%), and had found that the usual dose has not has the same effect (39%). One-third (33%) experienced a persistent desire or strong urge to take mephedrone, and around one-fifth reported that they had given up important activities because of mephedrone use (22%) or taken mephedrone or another drug to relieve drug withdrawals (22%) (Table 73).

Table 72: Symptoms of potential mephedrone tolerance and/or addiction, 2013

	2013 n=18
Usual dose does not have same effect as when first started (%)	39
Taken mephedrone in larger amounts than intended (%)	44
Persistent desire or strong urge to take mephedrone (%)	33
Continued to take mephedrone despite physical or psychological problems (%)	41
Spent a great deal of time getting mephedrone taking it or recovering (%)	33
Given up social/occupational/recreational activities due to mephedrone (%)	22
Been concerned about use of mephedrone (%)	11
Taken mephedrone or another stimulant to help relieve drug withdrawals (%)	22
Wanted to cut down/take mephedrone less often but not successful (%)	11
Friends and family expressed concern about use of mephedrone (%)	6

Source: EDRS interviews

Participants were asked about the frequency with which they may have experienced a range of feelings when taking mephedrone and how intense these feelings were (Table 73). The majority of the sample reported that most of the time they experienced an urge to talk (89%), increased energy (89%), clenching jaw or grinding teeth (83%), euphoria (78%), urge to move (78%), hard to sleep (72%), empathy with others (67%), no appetite for food (61%), and body sweating (56%). The majority of participants reported the most intense feelings were an urge to talk (61%), inability to sleep (69%), and lack of appetite for food (65%). The feelings that were never experienced by the majority of the sample were skin rash (94%), anger/aggression (89%), skin discolouration (red/blue) (89%), seeing things not there (78%), hearing things not there (78%), chest pain (72%), and vomiting (72%). While three-fifths (61%) had never experienced feelings of panic, these feelings were reported to be particularly intense among those who had experienced them.

In addition to feelings experience while intoxicated, participants were also asked about the frequency with which they experienced a range of feelings in the days following mephedrone use and how intense these feelings were (Table 74). Around three-fifths (61%) reported that most of the time they felt tired/fatigued in the days following use, around one-third (33%) reported feeling anxious, and one-quarter reported feeling depressed (28%) or emotional/tearful (28%). Large proportions reported that sometimes they had a stuffy nose (56%), were unable to concentrate (50%) and were irritable (44%) in the days following mephedrone use. These symptoms were reported to particularly intense among one-third or more of those who had experienced depression (42%) tiredness/fatigue (35%) and anxiety (31%). A large majority of the sample reported never experiencing an increased appetite (83%), unusual sweat smell (78%), or lost memory of session (78%) in the days following use.

Table 73: Frequency and intensity of feelings while under the influence of mephedrone in the previous 6 months (n=18), 2013

	Frequency (%)				Intensity (%)			
	Never	Once	Some-times	Most time	n	Mild	Mod-erate	Intense
Euphoria	0	0	22	78	18	17	61	22
Increased energy	0	0	11	89	18	6	61	33
Improved concentration	28	0	44	28	13	39	39	23
Empathy with others	6	0	28	67	17	24	41	35
Urge to talk	0	0	11	89	18	11	28	61
Urge to move	0	0	22	78	18	6	44	50
Increased sexual desire	22	0	61	17	14	50	36	14
Restless or anxious	28	17	22	33	13	31	23	46
Angry/aggressive	89	0	6	6	2	50	50	0
Agitated	56	11	28	6	8	63	25	13
No appetite	6	6	28	61	17	6	29	65
Forgetting things	44	6	44	6	10	60	40	0
Panicky	61	11	22	6	7	29	14	57
Paranoid	50	6	39	6	9	22	33	44
Blurred vision	22	17	44	17	14	50	29	21
Seeing things not there	78	6	11	6	4	25	50	25
Hearing things not there	78	6	11	6	4	25	50	25
Body sweating	6	0	39	56	17	35	41	24
Overheating	22	0	44	33	14	36	36	29
Heat racing/erratic	11	0	50	39	16	19	63	19
Shortness of breath	50	6	39	6	9	78	11	11
Headache	50	22	22	6	9	56	11	33
Chest pain	72	11	11	6	5	20	40	40
Clenching jaw/ grinding teeth	6	0	11	83	17	18	35	47
Shaky hands, fingers	22	6	56	17	14	50	43	7
Fingers/toes cold or numb	61	11	28	0	7	43	57	0
Skin discolouration	89	0	11	0	2	50	50	0
Skin rash	94	6	0	0	1	0	100	0
Vomiting	72	11	17	0	5	40	40	20
Hard to sleep	11	0	17	72	16	6	25	69

Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

Table 74: Frequency and intensity of feelings in the days following mephedrone use in the previous six months (n=18), 2013

	Frequency (%)				n	Intensity (%)		
	Never	Once	Sometimes	Most time		Mild	Moderate	Intense
Increased appetite	83	0	17	0	3	33	67	0
Stuffy nose	22	0	56	22	14	36	57	7
Tired/fatigued	6	0	33	61	17	12	53	35
Unusual sweat smell	78	0	0	22	4	0	0	100
Anxious	28	11	28	33	13	15	54	31
Depressed	33	11	28	28	12	25	33	42
Emotional/tearful	39	6	28	28	11	27	27	46
Irritable	17	28	44	11	15	40	60	0
Unable to concentrate	11	17	50	22	16	44	44	13
Lost memory of session	78	6	17	0	4	100	0	0
Urge to take more	50	0	39	11	9	22	67	11

Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

10.0 REFERENCES

- Andrews, G. & Slade, T. (2001). Interpreting scores on the Kessler Psychological Distress Scale (K10). *Australian and New Zealand Journal of Public Health*, 25, 494-497.
- Ashton, M. (1999). The danger of warnings. *Drug and Alcohol Findings*, 1, 22-24.
- 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 Bureau of Statistics (1997). *1995 National Health Survey, SF-36 Population Norms Australia*. Canberra: ABS.
- Australian Bureau of Statistics. (2001). *Information Paper: Use of the Kessler Psychological Distress Scale in ABS Health Surveys, Australia, 2001*. Canberra: ABS.
- Australian Bureau of Statistics. (2006). *2004-05 National Health Survey: Summary of Results*. Canberra: ABS.
- Australian Bureau of Statistics. (2008). *2007 National Health Survey of Mental Health and Wellbeing: Summary of Results*. Canberra: ABS.
- Australian Bureau of Statistics. (2009). *National Health Survey: Summary of Results 2007-2008*. Canberra: ABS.
- Australian Crime Commission (2003). *Australian Illicit Drug Report 2001-02*. Canberra: ACC.
- Australian Crime Commission (2004). *Australian Illicit Drug Report 2002-03*. Canberra: ACC.
- Australian Crime Commission (2005). *Australian Illicit Drug Report 2003-04*. Canberra: ACC.
- Australian Crime Commission (2006). *Australian Illicit Drug Report 2004-05*. Canberra: ACC.
- Australian Crime Commission (2007). *Australian Illicit Drug Report 2005-06*. Canberra: ACC.
- Australian Crime Commission (2008). *Australian Illicit Drug Report 2006-07*. Canberra: ACC.
- Australian Crime Commission (2009). *Australian Illicit Drug Report 2007-08*. Canberra: ACC.
- Australian Crime Commission (2010). *Australian Illicit Drug Report 2008-09*. Canberra: ACC.
- Australian Crime Commission (2011). *Australian Illicit Drug Report 2009-10*. Canberra: ACC.
- Australian Crime Commission (2012). *Australian Illicit Drug Report 2010-11*. Canberra: ACC.
- Australian Crime Commission (2013). *2011-12 Illicit Drug Report*. Canberra: ACC.

- 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 (2000). *1998 National Drug Strategy Household Survey: State and Territory Results*. AIHW cat. no. PHE 26. Canberra: AIHW (Drug Statistics Series).
- Australian Institute of Health and Welfare (2002a). *2001 National Drug Strategy Household Survey: First Results*. AIHW cat. no. PHE 35. Canberra: AIHW (Drug Statistics Series).
- Australian Institute of Health and Welfare (2002b). *2001 National Drug Strategy Household Survey: State and Territory Supplement*. AIHW cat. no. PHE 37. Canberra: AIHW (Drug Statistics Series).
- Australian Institute of Health and Welfare (2005a). *2004 National Drug Strategy Household Survey: First Results*. AIHW cat. no. PHE 57. Canberra: AIHW (Drug Statistics Series).
- Australian Institute of Health and Welfare (2005b). *2004 National Drug Strategy Household Survey: State and Territory Supplement*. AIHW cat. no. PHE 61. Canberra: AIHW (Drug Statistics Series).
- Australian Institute of Health and Welfare (2012). *Australia's Health 2012: The Thirteenth Biennial Health Report of the Australian Institute of Health and Welfare*. AIHW Cat. no. AUS 156. Canberra: AIHW.
- Australian Institute of Health and Welfare (2008a). *2007 National Drug Strategy Household Survey: First Results*. AIHW cat. no. PHE 98. Canberra: AIHW (Drug Statistics Series).
- Australian Institute of Health and Welfare (2008b). *2007 National Drug Strategy Household Survey: State and Territory Supplement*. AIHW cat. no. PHE 102. Canberra: AIHW (Drug Statistics Series).
- Australian Institute of Health and Welfare (2011). *2010 National Drug Strategy Household Survey: Report*. AIHW cat. no. PHE 145. Canberra: AIHW (Drug Statistics Series: Number 25).
- Australian Institute of Health and Welfare (2008c). *Alcohol and Other Drug Treatment Services in Tasmania: Findings from the National Minimum Data Set (NMDS) 2006/07*. Canberra: AIHW.
- Babor, T.F., Higgins-Biddle, J.C., Saunders, J.B., & Monteiro, M.G. (2001). *AUDIT – The Alcohol Use Disorders Identification Test: Guidelines for use in Primary Health Care*. Geneva: World Health Organization.
- Black, E., Dunn, M., Degenhardt, L., Campbell, G., George, J., Kinner, S., Matthews, A., Quinn, B., Newman, J., & White, N. (2008). *Australian Trends in Ecstasy and Related Drug Markets 2006: Findings from the Ecstasy and related Drugs Reporting System (EDRS)*. Australian Drug Trends Series No. 10. Sydney: NDARC, University of New South Wales.
- Brandt, S. D., Sumnall, H. R., Measham, F., & Cole, J. C. (2010). Second generation mephedrone: The confusing case of NRG-1. *British Medical Journal*, 341, c3564 doi: 3510.1136/bmj.c3564 (Published 3566 July 2010).
- 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*. Technical Report No. 142. Sydney: NDARC, University of New South Wales.
- Breen C., Degenhardt L., White B., Bruno R., Chanteloup F., Fischer J., Johnston J., Kinner S., Moon C., Proudfoot P., & Weekley J. (2004). *Australian Party Drug Trends 2003: Findings of the Party Drugs Initiative*. Monograph No. 52. Sydney: NDARC, University of New South Wales.
- Bruno, R. & McLean, S. (2004a). *Tasmanian Drug Trends 2003: Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No. 178. Sydney: NDARC, University of New South Wales.
- Bruno, R., & McLean, S. (2004b). *Tasmanian Party Drug Trends 2003: Findings from the*

- Party Drugs Initiative (PDI)*. Technical Report No. 186. Sydney: NDARC, University of New South Wales.
- Bruno, R. (2005). *Tasmanian Drug Trends 2004: Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No. 215. Sydney: NDARC, University of New South Wales.
- Bruno, R. (2006). *Tasmanian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No. 245. Sydney: NDARC, University of New South Wales.
- Bruno, R., Matthews, A., Topp, L., Degenhardt, L., Gomez, R., & Dunn, M. (2009). Can the Severity of Dependence Scale be usefully applied to 'ecstasy'? *Neuropsychobiology, Special Issue: Psychobiology of MDMA*, 60, 137-147.
- Bruno, R., Gomez, R., & Matthews, A.J. (2009). Choosing a cut-off on the severity of dependence scale for ecstasy use. Poster presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Darwin, Australia.
- Bruns, J., Jr., & Hauser, W. A. (2003). The epidemiology of traumatic brain injury: A review. *Epilepsia*, 44, Suppl 10, 2-10.
- Brunt, T. M., Poortman, A., Niesink, R. J. M., & Van den Brink, W. (2010). Instability of the ecstasy market and a new kid on the block: Mephedrone. *Journal of Psychopharmacology*, 24, doi: 10.1177/0269881110378370
- Bryant, F.B., & Smith, B.D. (2001). Refining the architecture of aggression: A measurement model for the Buss-Perry Aggression Questionnaire. *Journal of Research in Personality*, 35, 138-167.
- Byard, R., Gilbert, J., James, R., & Lokan, R. J. (1998). Amphetamine derivative fatalities in South Australia – is “ecstasy” the culprit? *American Journal of Medical Pathology*, 19, 261-265.
- 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.
- Commonwealth of Australia (2007). *Inquiry into the Manufacture, Importation and use of Amphetamines and Other Synthetic Drugs (AOSD) in Australia*. Parliamentary Joint Committee on the Australian Crime Commission. Canberra: The Parliament of the Commonwealth of Australia.
- Corrigan, J. D., Bogner, J., & Holloman, C. (2012). Lifetime history of traumatic brain injury among persons with substance use disorders. *Brain Injury*, 26(2), 139-150.
- Cummins, R.A., Woerner, J., Gibson, A., Lai, L., Weinberg, M., & Collard, J. (2008). *Australian Unity Wellbeing Index Survey 20, Part A: The Wellbeing of Australians – Money, Debt and Loneliness*. Melbourne: Australian Centre on Quality of Life, Deakin University.
- de Graaff, B. & Bruno, R. (2007). *Tasmanian Drug Trends 2006: Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No. 273. Sydney: NDARC, University of New South Wales.
- de Graaff, B. & Bruno, R. (2008). *Tasmanian Drug Trends 2007: Findings from the Illicit Drug Reporting System (IDRS)*. Australian Drug Trends Series No. 5. Sydney: NDARC, University of New South Wales.
- de Graaff, B. & Bruno, R. (2009). *Tasmanian Drug Trends 2008: Findings from the Illicit Drug Reporting System (IDRS)*. Australian Drug Trends Series No. 23 Sydney: NDARC, University of New South Wales.
- de Graaff, B. & Bruno, R. (2010). *Tasmanian Drug Trends 2009: Findings from the Illicit Drug Reporting System (IDRS)*. Australian Drug Trends Series No 41. Sydney: NDARC, University of New South Wales.

- de Graaff, B. & Bruno, R. (2011). *Tasmanian Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Australian Drug Trends Series No. 59. Sydney: NDARC, University of New South Wales.
- de Graaff, B. & Bruno, R. (2012). *Tasmanian Drug Trends 2011: Findings from the Illicit Drug Reporting System (IDRS)*. Australian Drug Trends Series No. 77 Sydney: NDARC, University of New South Wales.
- de Graaff, B. & Bruno, R. (2013). *Tasmanian Drug Trends 2012: Findings from the Illicit Drug Reporting System (IDRS)*. Australian Drug Trends Series No 95. Sydney: NDARC, University of New South Wales.
- de Graaff, B., Peacock, A., & Bruno, R. (2014). *Tasmanian Drug Trends 2013: Findings from the Illicit Drug Reporting System (IDRS)*. Australian Drug Trends Series. Sydney: NDARC, University of New South Wales.
- Degenhardt, L., Darke, S. & Dillon, P. (2003). The prevalence and correlates of gamma-hydroxybutyrate (GHB) overdose among Australian users. *Addiction*, 98, 199-204.
- Degenhardt, L., Bruno, R., & Topp, L. (2010). Is ecstasy a drug of dependence? *Drug and Alcohol Dependence*, 107, 1-10.
- Dunn, M., Degenhardt, L., Campbell, G., George, J., Johnston, J., Kinner, S., Matthews, A., Newman, J., & White, N. (2007). *Australian Trends in Ecstasy and Related Drug Markets 2006: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Monograph No. 61. Sydney: NDARC, University of New South Wales.
- Fetherston, J. and Lenton, S., 2006. *West Australian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*, Technical Report No. 252. Sydney: NDARC, University of New South Wales.
- Gossop, M., Darke, S., Griffiths, P., Hando, J., Powis, B. F., Hall, W., & Strang, J. (1995). The severity of dependence scale (SDS): Psychometric properties of the SDS in English and Australian samples of heroin, cocaine, and methamphetamine users. *Addiction*, 90, 607-614.
- Hamida, S. B., Tracqui, A., de Vasconcelos, A. P., Szwarc, E., Lazarus, C., Kelche, C., Jones, B. C., & Cassel, J. C. (2008). Ethanol increases the distribution of MDMA to the rat brain: Possible implications in the ethanol-induced potentiation of the psychostimulant effects of MDMA. *The International Journal of Neuropsychopharmacology*, Published online by Cambridge University Press 02 Dec 2008 doi:10.1017/S1461145708009693.
- Hando, J., Darke, S., Degenhardt, L., Cormack, S., & Rumbold, G. (1998). *Drug Trends 1997. A Comparison of Drug use and Trends in Three Australian states: Results from a National Trial of the Illicit Drug Reporting System (IDRS)*. Research Monograph No. 36. Sydney: NDARC, University of New South Wales.
- Heatheron, T.F., Kozlowski, L.T., Frecker, R.C., Rickert, W.S., & Robinson, J. (1989). Measuring the heaviness of smoking using self-reported time to first cigarette and number of cigarettes smoked per day, *British Journal of Addiction*, 84, 791-800.
- James, D., Adams, R. D., Spears, R., Cooper, G., Lupton, D. J., Thompson, J. P., et al. (2010). Clinical characteristics of mephedrone toxicity reported to the UK national poisons information service. *Emergency Medicine Journal*, doi:10.1136/emj.2010.096636.
- Johnston, J., Barratt, M.J., Fry, C.L., Kinner, S., Stoové, M., Degenhardt, L., George, J., Jenkinson, R., Dunn, M., & Bruno, R. (2006). A survey of regular ecstasy users' knowledge and practices around determining pill content and purity: Implications for policy and practice. *International Journal of Drug Policy*, 17, 646-672.
- Kelly, M. P., Johnson, C. T., Knoller, N., Drubach, D. A., & Winslow, M. M. (1997). Substance abuse, traumatic brain injury and neuropsychological outcome. *Brain Injury*, 11(6), 391-402.
- Matthews, A., & Bruno, R. (2005). *Tasmanian Trends in Ecstasy and Related Drug Markets 2004: Findings from the Party Drugs Initiative (PDI)*. Technical Report No. 225. Sydney: NDARC, University of New South Wales.
- Matthews, A., & Bruno, R. (2006). *Tasmanian Trends in Ecstasy and Related Drug Markets*

- 2005: *Findings from the Party Drugs Initiative (PDI)*. Technical Report No. 251. Sydney: NDARC, University of New South Wales.
- Matthews, A., & Bruno, R. (2007). *Tasmanian Trends in Ecstasy and Related Drug Markets 2006: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Technical Report No. 281. Sydney: NDARC, University of New South Wales.
- Matthews, A., & Bruno, R. (2008). *Tasmanian Trends in Ecstasy and Related Drug Markets 2007: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Australian Drug Trends Series No. 14. Sydney: NDARC, University of New South Wales.
- Matthews, A., & Bruno, R. (2009). *Tasmanian Trends in Ecstasy and Related Drug Markets 2008: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Australian Drug Trends Series No. 32. Sydney: NDARC, University of New South Wales.
- Matthews, A., & Bruno, R. (2010). *Tasmanian Trends in Ecstasy and Related Drug Markets 2009: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Australian Drug Trends Series No. 50. Sydney: NDARC, University of New South Wales.
- Matthews, A.J. & Bruno, R. (2010). *Mephedrone use among regular ecstasy consumers in Australia*. Ecstasy and Related Drug Trends Bulletin, December 2010. Sydney: NDARC, University of New South Wales.
- Matthews, A., & Bruno, R. (2011). *Tasmanian Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Australian Drug Trends Series No. 68. Sydney: NDARC, University of New South Wales.
- Matthews, A., & Bruno, R. & Peacock, A. (2012). *Tasmanian Trends in Ecstasy and Related Drug Markets 2011: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Australian Drug Trends Series No. 86. Sydney: NDARC, University of New South Wales.
- Matthews, A., & Bruno, R. (2013). *Tasmanian Trends in Ecstasy and Related Drug Markets 2012: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Australian Drug Trends Series No. 104. Sydney: NDARC, University of New South Wales.
- Matthews, A. J., Bruno, R., Johnston, J., Black, E., Degenhardt, L., & Dunn, M. (2008). Factors associated with driving under the influence of alcohol and drugs among an Australian sample of regular ecstasy users. *Drug and Alcohol Dependence*, 100(1-2), 24-31.
- Measham, F., Moore, K., Newcombe, R., & Welch, Z. (2010). Tweaking, bombing, dabbing and stockpiling: The emergence of mephedrone and the perversity of prohibition. *Drugs and Alcohol Today* 10(1), 14-21.
- Newcombe, R.G. (1998). Interval estimation for the difference between independent proportions: Comparison of eleven methods. *Statistics in Medicine*, 17, 873-890.
- Perkes, I., Schofield, P. W., Butler, T., & Hollis, S. J. (2011). Traumatic brain injury rates and sequelae: A comparison of prisoners with a matched community sample in Australia. *Brain Injury*, 25(2), 131-141.
- Reinert, D.F., & Allen, J.P. (2002). The Alcohol Use Disorders Identification Test (AUDIT): A review of recent research. *Alcoholism: Clinical and Experimental Research*, 26 (2), 272-279.
- Ritter, A., Lancaster, K., Grech, K., & Reuter, P. (2011). *An assessment of illicit drug policy in Australia (1985 to 2010): Themes and trends*. Drug Policy Modelling Program Monograph 21. Sydney: NDARC, University of New South Wales.
- Roxburgh, A., & Burns, L. (in press). *Drug-related Hospital Stays in Australia, 1993-2012*. Sydney: NDARC, University of New South Wales.
- Saunders, J.B., Aasland, O.G., Babor, T.F., de la Fuente, J.R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO

- collaborative project on early detections of persons with harmful alcohol consumption. *Addiction*, 88, 793-804.
- Secretariat of the Parliamentary Joint Committee on the Australian Crime Commission (2007). *Inquiry into the Manufacture, Importation and Use of Amphetamines and Other Synthetic Drugs (AOSD) in Australia*. Canberra: Commonwealth of Australia.
- Sindicich, N., Burns, L., George, J., Kong, F., Matthews, A., Rainsford, C., Rowe, P., Scott, L. & White, N. (2009) *Australian Trends in Ecstasy and Related Drug Markets 2008: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Australian Drug Trends Series. Sydney: NDARC, University of New South Wales.
- Skiba, D., Monroe, J., Wodarski, J.S. (2004). Adolescent substance use: Reviewing the effectiveness of prevention strategies, *Social Work*, 49.
- Stafford, J., Degenhardt, L., Agliotis, M., Chanteloup, F., Fischer, J., Matthews, A., Newman, J., Proudfoot, P., Stoove, M., & Weekley, J. (2005). *Australian Trends in Ecstasy and Related Drug Markets 2004: Findings from the Party Drugs Initiative (PDI)*. Monograph No. 57. Sydney: NDARC, University of New South Wales.
- Stafford, J., Degenhardt, L., Dunn, M., Fischer, J., George, J., Johnston, J., Matthews, A., Newman, J., Proudfoot, P., & Weekley, J. (2006). *Australian Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. Monograph No. 58. Sydney: NDARC, University of New South Wales.
- Tait, R. J., Anstey, K. J., & Butterworth, P. (2010). Incidence of self-reported brain injury and the relationship with substance abuse: Findings from a longitudinal community survey. *BMC Public Health*, 10, 171.
- Tandberg D. *Improved Confidence Intervals for the Difference between Two Proportions and Number Needed to Treat (NNT)*, Version 1.49, available at: <http://www.cebm.net/index.aspx?o=1023>.
- The Vaults of Erowid, (2010). <http://www.erowid.org.html>.
- Topp, L. & Churchill, A. (2002). Australia's Dynamic Methamphetamine Markets. *Drug Trends Bulletin*, June, 2002. Sydney: NDARC, University of New South Wales.
- Topp, L., Hall, W., & Hando, J. (1997). *Is there a dependence syndrome for ecstasy?* Technical Report No. 51. Sydney: NDARC, University of New South Wales.
- Topp, L., & Mattick, R.P. (1997). Choosing a cut-off on the Severity of Dependence Scale (SDS) for amphetamine users. *Addiction*, 92, 839-845.
- Turning Point (2001). *ADIS & DACAS Annual Report 1999/00*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2009). *ADIS & DACAS Annual Report 2007/08*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2002). *ADIS & DACAS Annual Report 2000/01*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2003). *ADIS & DACAS Annual Report 2001/02*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2004). *ADIS & DACAS Annual Report 2002/03*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2005). *ADIS & DACAS Annual Report 2003/04*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2006). *ADIS & DACAS Annual Report 2004/05*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2007). *ADIS & DACAS Annual Report 2005/06*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2008). *ADIS & DACAS Annual Report 2006/07*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2009). *ADIS & DACAS Annual Report 2007/08*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2010). *ADIS & DACAS Annual Report 2008/09*. Melbourne: Turning Point Alcohol and Drug Centre.

- Turning Point (2011). *ADIS & DACAS Annual Report 2009/10*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2012). *ADIS & DACAS Annual Report 2010/11*. Melbourne: Turning Point Alcohol and Drug Centre.
- Turning Point (2013). *ADIS & DACAS Annual Report 2011/12*. Melbourne: Turning Point Alcohol and Drug Centre.
- 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.
- West, S.L., & O'Neal, K.K. (2004). Project D.A.R.E. outcome effectiveness revisited. *American Journal of Public Health, 94*, 1027-1029.
- Winstock, A. R., Marsden, J., Mitcheson, L. (2010). What should be done about mephedrone? *British Medical Journal, 340*, c1605, doi:1610.1136/bmj.c1605.
- Wood, D. M., Greene, S. L., & Dargan, P. I. (2010). Clinical pattern of toxicity associated with the novel synthetic mephedrone. *Emergency Medicine Journal*, June 26th (advance publication), doi: 10.1136/emj.2010.092288.