

A. Matthews & R. Bruno

**TASMANIAN TRENDS IN ECSTASY AND  
RELATED DRUG MARKETS 2012**  
Findings from the  
Ecstasy and Related Drugs Reporting System  
(EDRS)

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# **TASMANIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2012**



## **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
ADF	Australian Drug Foundation
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AGDH&A	Australian Government Department of Health and Ageing
AOSD	amphetamines and other synthetic drugs
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(s)	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
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
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
PDI	Party Drugs Initiative (now EDRS)
PCP	phencyclidine
PMA	paramethoxyamphetamine
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
TASPOL	Tasmania Police
TAS	Tasmania
95%CI	95% confidence interval

## **EXECUTIVE SUMMARY**

### **Demographic characteristics of REU**

The sample of 100 REU interviewed in 2012 were typically in their early twenties (range 18-57 years) and just over one-half were male (55%). Participants were generally well educated and either employed (on a full- or part-time/casual basis) or currently engaged in study. A majority of participants (85%) had completed Year 12, and 43% had completed tertiary qualifications (university or trade/technical). One-half (50%) were employed (either full-time or part-time/casual) and two-fifths (39%) were currently students. Few participants had come into contact with drug treatment agencies (5%). These demographic characteristics are generally similar to previous cohorts. However, there were significantly more full-time students (35% vs. 11%) and significantly fewer who had already completed a university degree (19% vs. 42%), when compared to 2011.

### **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 benzodiazepines, LSD, nitrous oxide, cocaine, mushrooms or amyl nitrite. Compared to 2011, a significantly smaller proportion reported recent use of MDA (4% vs. 21%), mephedrone (10% vs. 35%) and opioids other than heroin, methadone or buprenorphine (4% vs. 16%) in 2012.

### **Ecstasy**

On average participants had been using ecstasy for 5 years and had first used ecstasy at around 17 years of age (range 13-29 years) compared to an age of 19-20 years among previous samples.

Ecstasy had typically been used in tablet (92%) or capsule (75%) form in the last six months, with use of ecstasy powder less common (30%). The proportion reporting recent use of ecstasy capsules increased significantly in 2010 and has remained stable since this time.

Ecstasy was typically swallowed, but snorting of ecstasy was also common. In 2010 there was a significant increase in the snorting of ecstasy tablets (89% vs. 71%) and capsules (82% vs. 38%) relative to 2009 and this has been maintained in 2011 and 2012.

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 fortnightly with a median of two tablets taken in a typical session. Younger participants reported a higher median frequency of use (18 days) relative to older participants (10 days).

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-quarter had recently used ecstasy weekly or more frequently (23%) and/or had used ecstasy in a 'binge session' (a continuous 48 hour period of drug use without sleep) (27%), and almost one-fifth (17%) reported using more than two tablets in a typical session of 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 of neurological and neuropsychological harm.

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. High levels of concomitant binge alcohol and ecstasy use is an issue of concern. There is an increased risk of dehydration when alcohol is combined with ecstasy, and larger quantities of alcohol can be consumed when under the influence of psycho-stimulants without experiencing immediate effects of intoxication; however, the harms associated with this use still occur. Moreover, there is emerging evidence from animal studies that alcohol may dramatically alter the pharmacology of 3,4-methylenedioxymethamphetamine (MDMA) in the brain (Hamida et al., 2008), which may exacerbate the potential for neurological harm from the drug.

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 \$18-40) or one capsule (range \$5-40). No recent price changes were noted and three-quarters (74%) of the sample indicated that price had recently remained stable.

Ecstasy was reported to be medium (47%) or low (20%) in purity, 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 in purity.

The proportion reporting that ecstasy was 'easy' or 'very easy' to obtain was significantly higher in 2012 (86%) relative to the decreased availability reported in 2010 (63%) and 2011 (70%). Recent availability was reported to have remained stable (73%) or to have become 'easier' (14%) in the past six months.

In summary, while there was evidence for a reduction in the perceived purity and availability of ecstasy in Hobart in recent years, the perceived purity and availability of ecstasy seems to be returning to baseline levels in 2012.

### **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 private party or a public bar. Over one-half (57%) indicated they typically purchased ecstasy both for themselves and others, with a median of three tablets (range 1-160 tablets) purchased per 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**

Two-thirds (64%) of the 2012 REU sample had used some form of methamphetamine in the preceding six months, which is similar to the proportion in 2011 (52%, 95%CI 41-63%) but significantly higher relative to 2010 (48%, 95%CI 38-58%). This upward trend in recent use is in contrast to the downward trend observed among both REU and the general population (NDSHS, 2007) in recent years.

Methamphetamine was used on a median of three days during this period (once every two months on average) in relatively small amounts (1-2 points).

Recent use of methamphetamine powder was most common (61%), with low levels of use of methamphetamine base (16%) and crystal methamphetamine (10%). The proportion reporting recent use of methamphetamine powder (61%) in 2012 was greater than the proportion between 2009 and 2011 (40-47%) but similar to the years prior to this (62-77%). Methamphetamine powder was typically swallowed or snorted; base was typically swallowed, smoked or injected, whereas crystal was typically smoked.

The median last purchase price for one 'point' (0.1 g) of methamphetamine powder was \$50 (range \$20-\$100) which is higher than previous years (\$35-40). The median last purchase price for one gram of methamphetamine powder (\$300) was also higher than the prices reported between 2009 and 2011 (\$250-255).

Methamphetamine powder was reported to be 'low' or 'medium' in purity, with a greater proportion indicating that it was low in purity in 2012 (40%) in comparison to previous years (3-23%).

Methamphetamine powder was considered 'easy' or 'difficult' to obtain among those who commented, with a significant reduction observed in the proportion perceiving that it was 'easy' or 'very easy' to obtain in 2012 (53%) when compared to previous years (71-90%).

In summary, there were indications of increased use, increased price, and decreased purity and availability of methamphetamine powder in 2012. Small sample sizes in relation to crystal and base and low levels of recent use among the current cohort both indicate low availability of these forms in 2012.

## **Cocaine**

One-quarter (26%, 95%CI 18-35%) of the 2012 sample had used cocaine during the six months preceding the interview which was not significantly different to the proportion in 2011 (39%, 95%CI 28-50%) but significantly fewer relative to 2010 where almost one-half of the sample reported recent use (49%, 95%CI 39-59%). This downward trend in recent use is in contrast to the upward trend observed in Tasmanian in recent years.

Cocaine was most typically snorted and was used on a median frequency of two days (range 1-20 days) in the last six months compared to a median of 1 day among the 2011 sample. An average of 0.5 grams was used in a typical session. Cocaine was typically last used at a nightclub, a public bar, or a private residence.

The median last purchase price for one gram of cocaine was stable at \$300 (range \$200-400) and no recent price trends were noted.

Cocaine was primarily reported to be 'low' (46%) or 'medium' (46%) in purity and this purity was reported to have remained 'stable' (46%) or to have 'decreased' (36%) in the last six months. The proportion reporting that cocaine was 'low' in purity was greater in 2012 compared to 2011 (46% vs. 26%).



The majority of those who commented on the availability of cocaine indicated that it was currently 'difficult' (57%) or 'very difficult' (43%) to obtain, and availability was reported to have remained stable in the last six months.

Cocaine had most commonly last been 'used but not purchased' or had been purchased from friends.

### **LSD and other psychedelics**

Over three-fifths (67%) of the 2012 sample had used LSD at some stage of their lives. Almost one-third (30%, 95%CI 22-40%) had used LSD in the six months preceding the interview which is similar to the proportion in 2011 (43%, 95%CI 32-54) and 2010 (27%, 95%CI 19-36).

LSD had been used on a median of 3 days (range 1-30 days) in the preceding six months. Two tabs or drops of liquid LSD (range 0.5-4) was taken orally in a typical session of use, which is higher than the median of one tab/drop observed in previous years.

LSD was last used at a dance party or at private residences such as the consumer's own home or a friend's home, or a private party.

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' (56%) or 'medium' (35%) and to have remained stable during the last six months.

A large majority of those commenting indicated that LSD was 'very easy' (31%) or 'easy' (42%) to obtain and that availability had recently been stable (74%).

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

One-quarter of the sample (26%) had used psychedelic mushrooms on a median of 2.5 days (range 1-24 days) in the last six months.

### **Cannabis**

Over three-fifths of the REU sampled (69%) had used cannabis during the six months preceding the interview.

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%).

Among the REU sampled, cannabis had typically been smoked, with around half recently ingesting the drug. The median frequency of cannabis use was 120 days (range 1-180) or approximately five days per week, compared to a significantly lower median frequency in previous years (11-25 days). Daily cannabis smoking was reported among one-third (32%) of the entire sample which is also significantly greater than previous years (5-17%).

The median quantities used on the last day of use during this time were 8 cones (range 1-30) or 1 joint (range 0.2-6).

The median last purchase price for one ounce of hydroponically-grown ('hydro') cannabis was \$300 (range \$150-350) compared to a median of \$250 (range \$70-320) for 'bush'

grown cannabis. The median last purchase weight for one \$25 bag of 'hydro' was 1.5 grams (range 1.2-2.5 g), compared to a median of 2 grams (1.5-2.3 g) for 'bush'.

The potency of 'hydro' was reported to be high (55%) and the potency of 'bush' was reported to be medium (56%) 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**

A large majority (98%) of the 2012 REU sample had recently consumed alcohol, on an average of three to four days a week in the last six months. A majority (96%) had used alcohol at least weekly (but not daily), which is significantly greater than the 2011 sample (87%), and 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).

### **Tobacco**

Tobacco had recently been used by four-fifths (80%) of the sample. Almost one-half (49%) reported daily use in the last six months, which is a significant increase relative to the last 5 years (31-36%) and higher than the 2010 population estimate for this age group (20-29) both in Tasmania (25.5%) and nationally (18%).

### **Mephedrone and other emerging psychoactive substances**

The proportion of REU reporting recent use of mephedrone in 2012 (10%) was significantly fewer relative to both 2011 (27%, 95%CI 18-38%) and 2010 when almost one-half of the sample reported recent use (47%, 95%CI 38-57%). Mephedrone was snorted or swallowed on a median of 2.5 days (range 1-12 days) in the last six months. Of those who commented on the last source of mephedrone (n=10), a majority had last obtained mephedrone from a friend (80%), dealer (10%), or acquaintance (10%) with none reporting that they had obtained the drug from the internet.

Recent use of other emerging psychoactive substances (EPS) was relatively low. The most commonly used substances in the last six months were DMT (6%), DXM (4%) and synthetic cannabinoids (4%). In addition, over one-tenth of the sample reported recent use of capsules of 'unknown contents' (16%) or use of 'herbal highs' (8%).

### **Patterns of other drug use**

Consistent with previous years, less than one-tenth reported recent use of ketamine (4%), or GHB/GBL/1,4B (2%) and just 4% reported recent use of MDA which is a significant reduction relative to the increase in recent use (21%) observed among the 2011 sample.

One-quarter (24%) reported recent use of amyl nitrite and frequency of use was relatively low at two days in the last six months or approximately once every three months.

One-quarter (27%) reported low frequency (less than monthly) use of nitrous oxide.

Almost one-third (31%) of REU had used benzodiazepines during the last six months, with one-quarter (25%) reporting illicit (non-prescribed) use and one-tenth (10%) 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 was relatively low in frequency, at 5 days (range 1-90 days) in the last six months.

A small proportion of the sample (4%) had recently used antidepressants; 4% reported recent licit use and 1% reported recent illicit use.

The use of other pharmaceuticals and opioid drugs was relatively rare among the regular ecstasy users interviewed in the current study, and those that had recently used these drugs had generally done so infrequently. One-fifth (20%) of REU reported recent illicit use of pharmaceutical stimulants (such as dexamphetamine or methylphenidate) in 2012. The median frequency of use was 3 days (range 1-20 days) in the last six months, with a median of 2 tablets (range 1-7.5) taken in a typical session of use. Only small proportions of the 2012 sample had recently used heroin (1%), methadone (4%), buprenorphine (2%) or 'other opioids' (restricted pharmaceuticals and alkaloid poppy derivatives). Less than one-tenth reported recreational use of stimulant based (5%) over-the-counter preparations and 16% reported recent non-pain use of over-the-counter codeine preparations.

### **Health-related issues**

**Overdose.** Less than one-tenth (4%) of the 2012 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 the years prior to 2011. In 2012, 4% reported a recent overdose episode on a stimulant drug (e.g., cocaine, ecstasy and other stimulants) and 2% reported a recent overdose on a depressant drug (primarily alcohol). 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.** Despite regular substance use, just over one-tenth (11%) 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 (55%) or a drug and alcohol worker (18%). Participants were most likely to access services in relation to the use of alcohol (50%), cannabis (30%), or ecstasy use (10%). The main issues involved in these treatment episodes were mental health problems (27%), acute physical problems (18%), and cutting down use (18%).

**Mental health problems.** One-third (34%) of the 2012 REU sample reported experience of mental health problems during the six months prior to the interview, most commonly anxiety (71%) and/or depression (50%). Just two-fifths (41%) of those who had experienced mental health problems had attended a health professional in relation to these problems during this time.

**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' was similar to the general Australian population (5% vs. 3.5%); however, the proportion of REU with scores classified as 'high' was significantly greater than the general population (28% vs. 8.5%). 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.** Almost two-fifths (39%) of the 2012 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-fifth (21%) 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, almost one-fifth (19%) reported repeated problems with family, friends, or people at work or school, and a very small proportion (3%) reported recurrent drug-related legal problems. Problems were most commonly attributed to cannabis and alcohol.

**Ecstasy dependence.** Two-fifths (41%) of REU reported experiencing significant symptoms of dependence in relation to ecstasy, compared to a smaller proportion over the past three years (12-18%).

#### **Drug treatment data**

While a consistent 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), 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 0.6% of all treatment episodes in the 2010/11 period (equating to approximately 10 treatment episodes out of a total of 1,653).

#### **Tasmania hospital admission data**

There has been a substantial reduction in Tasmanian cannabis-related hospital admissions over the last three reporting periods with 22 cases reported in 2009/10. The Tasmanian admission rate observed in 2008/09 and 2009/10 is considerably lower than national rates (per million population).

In 2008/09 there was a substantial reduction in Tasmanian admissions in relation to methamphetamine, with a rate well below the national admission rate observed for this period (76 vs. 157 admissions per million population). This disparity was also observed in 2009/10 (45 vs. 136 admissions per million population), along with decreased rates of admissions both nationally and in Tasmania.

There has been very few hospital admissions recorded in Tasmania in relation to cocaine.

#### **Risk behaviours**

**Injecting drug use.** Less than one-tenth (6%) of the 2012 REU sample had recently used substances intravenously, on a median frequency of 7.5 days (range 1-35) during the last six months (or just over monthly on average). Methamphetamine, ecstasy, other opioids, and pharmaceutical stimulants were the most common drugs injected in the last six months. Sharing of needles and equipment was relatively uncommon.

**Blood-borne viral infections.** Three-fifths (64%) of the 2012 REU sample had been vaccinated for hepatitis B and one-third had been tested for hepatitis C (35%), or for HIV (35%).

**Sexual risk behaviour.** Three-fifths (60%) of REU reported penetrative sex with a casual partner during the six months preceding the interview and almost three-fifths (58%) reported sex with a casual partner while under the influence of drugs, most commonly alcohol, ecstasy, or cannabis. When under the influence of drugs, only around one-quarter (26%) reported 'always' using protective barriers with a casual partner and one-tenth (12%) 'never' used protective barriers. One-half (50%) 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.

One-quarter of the sample (28%) had never had a sexual health check-up. A majority (78%) of the sample had never been diagnosed with a STI and the remainder had been diagnosed in the last year (5%) or more than a year ago (16%). The most commonly diagnosed STI was Chlamydia (91%).

**Drug driving.** Of those who had driven a car, almost one-half (47%) reported driving at a time when they perceived themselves to be over the legal alcohol limit during the last six months, and one-half (47%) reported driving within an hour of taking illicit drugs in the last six months. Most commonly, participants reported driving under the influence (DUI) of cannabis, ecstasy or methamphetamine powder.

The proportion of REU reporting DUI of ecstasy and methamphetamine has gradually declined since 2006 but a reversal of this trend was noted in 2012. DUI of cannabis has remained relatively stable over time but has increased over the past two years.

**Alcohol Use Disorders Identification Test (AUDIT).** One-third (33%) 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 2011 (36%) but significantly greater than the proportion categorised in zone 4 in the two years prior to this (18-21%). A further 26% scored in zone 3 (harmful or hazardous drinking), one-third (33%) scored in zone 2 (alcohol use in excess of low-risk guidelines<sup>1</sup>), and just 8% scored in zone 1 (a level reflecting low-risk drinking or abstinence).

**Binge drug use.** One-third (31%) had recently 'binged' on ecstasy or related drugs (a continuous period of use for more than 48 hours without sleep), on a median of 2 occasions (range 1-24) in the last six months. Substances most commonly used in a binge session of use were alcohol (94%), ecstasy (87%), energy drinks (65%), cannabis (55%), methamphetamine (powder 48%; base 3%; crystal 13%), and LSD (32%).

**Criminal activity, policing and market changes.** Around one-quarter (26%) of the 2012 REU sample reported taking part in any criminal activity in the last month. The most common crimes were drug dealing (18%) and property crime (12%). Over one-tenth (14%) of REU had been arrested during the preceding 12 months. Arrests were generally for non-drug related offences.

## **Law enforcement data**

**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. In 2010/11 and 2011/12 a substantial reduction in both the number of arrests and the number of seizures was noted relative to recent years.

The number of methamphetamine-related arrests substantially increased 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). The number of methamphetamine-related seizures increased gradually between 1999/00 and 2006/07. Since this time the number of seizures has reduced or remained stable; however, an increase in the number of seizures was noted in both 2010/11 (153 seizures) and 2011/12 (256 seizures) relative to the two years prior to this (111-115 seizures).

Since 2006/07 the number of cannabis-related arrests has remained relatively stable while the number of seizures has increased gradually with a slight decline observed in 2011/12 with 2,576 seizures reported compared to 2,875 in 2010/11.

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<sup>1</sup> 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.

**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 was a further reduction in total diversions/cautions in 2011/12 relative to 2010/11 (869 vs. 1,132).

**Drug-related charges in Tasmanian courts.** The number of individuals before the Hobart Magistrates Court in relation to drug offences in 2011/12 was stable or slightly lower in comparison to 2010/11. Data prior to 2010/11 is not directly comparable due to the introduction of a new data coding system (ASOC, 2008). The number of individuals incarcerated at Hobart Prison in relation to drug-related offences was stable in 2011/12 relative to 2010/11 (81 vs. 80).

### **Special topics of interest**

**Heavy Smoking Index.** One-fifth (18%) of daily smokers reported smoking their first cigarette within 5 minutes of waking and one-half (49%) between 5 to 30 minutes of waking. One-half (47%) of daily smokers reported smoking 10 or less cigarettes per day with the remainder smoking more than this. Almost one-fifth (18%) of daily smokers (32%) scored more than 5 on the Fagerstrom test for nicotine dependence, indicating high to very high nicotine dependence, compared to just 5% among the 2011 sample.

**Neurological history.** One-third (33%) of the 2012 EDRS sample reported lifetime experience of traumatic brain injury. Of those who had ever experienced TBI, one-third (36%) had been under the influence of alcohol and one-tenth (12%) had been under the influence of drugs (most commonly cannabis) at the time of the most serious TBI that they had experienced.

**Drug policy.** With regard to heroin policy, there was strong support among REU for Needle and Syringe Programs (93%) and methadone/buprenorphine maintenance programs (73%). With regard to the legalisation of drugs for personal use, there was strong support for the legalisation of cannabis (74%) and two-fifths (38%) supported the legalisation of ecstasy. Two-thirds (64%) supported policy to increase penalties in relation to heroin and between one-fifth and one-third supported increased penalties in relation to cannabis, methamphetamine, cocaine and ecstasy.

**Body image.** Less than one-tenth (8%) of the sample (11% of females and 6% of males) had ever used illicit psychostimulants (most commonly ecstasy or methamphetamine) to lose or maintain weight and 3% reported doing this during the six months preceding the interview. Although the use of illicit psychostimulants for the specific purpose of losing/maintaining weight was relatively low, almost two-fifths (38%) reported that they were concerned about gaining weight if their illicit psychostimulant use was ceased, and this concern was more prevalent among females (42%) relative to males (2%). In addition, over one-tenth (12%, 13% of females and 11% of males) indicated that they were concerned that they had lost too much weight due to IPS use.

## **Implications**

It is important to note that 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 ecstasy and related drugs, and the prevalence of ecstasy and other drug use cannot be inferred from this study. However, the study is designed to identify emerging trends and important issues, and the findings of the 2012 EDRS 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 ecstasy and related drugs 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 interviewed among previous EDRS cohorts were actively seeking harm-reduction information in relation to the substances that they chose to use, 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](http://www.pillreports.com) or [www.bluelight.ru](http://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 health 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 real risk of undermining the potential for successfully reducing health harms amongst this population.

### **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-quarter had recently used ecstasy weekly or more frequently (23%) and/or had used ecstasy in a 'binge session' (a continuous 48 hour period of drug use without sleep) (27%), and almost one-fifth (17%) reported using more than two tablets in a typical session of use.

Given that ecstasy was typically consumed in combination with other drugs among the current REU cohort, 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 the REU interviewed in the present study. A large majority (85%) of the REU sample 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; however, the harms associated with this use still occur. Moreover, there is 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 (96%) of the 2012 REU sample had used alcohol at least weekly during the six months preceding the interview, which is significantly greater than the 2011 sample (87%), and 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 (92%) 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, and there was a significant increase in the proportion categorised in zone 4 (those in this zone may be referred to evaluation and possible treatment for alcohol dependence) in 2011 (36%) and 2012 (33%) relative to 2010 (21%). 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 over four-fifths (80%) of the 2012 sample reporting use in the last six months. Almost one-half (49%) reported daily use in the last six months which is a significant increase relative to the last 5 years (31-36%) and 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.

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

Trends have been noted among recent REU samples that indicate significant changes in the ecstasy and related drug 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 (and in the snorting of ecstasy as a route of administration) since 2010 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 psychoactive drugs in the tryptamine family (e.g., 2CI, 2CB, 2CE, 2C-T-7, DMT), or other substances such as methylone, DOI, DMT, and MDPV in recent years.

'Emerging psychoactive substances' such as mephedrone, methylone and 2CI/2CB/2CE are relatively new substances and little is known about the effects and risks of their use. In 2012 the perceived purity and availability of ecstasy seems to be returning to baseline levels and the proportion reporting recent use of mephedrone has decreased. However, 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 emerging psychoactive substances 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.

### **4. Interventions aimed at increasing awareness of safe sexual practices**

One-half (50%) 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. Several KE also commented on sexual risk-taking behaviour among the REU that they were familiar with. 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, one-quarter (28%) reported that they had never had a sexual health check-up.

### **5. 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, with few reporting recent experience of mental health problems, or high levels of psychological distress, few people accessing health services in relation to drug use, and most not experiencing significant symptoms of dependence in relation to either ecstasy or methamphetamine.

However, there was a subset of this cohort that experienced notable symptoms of dependence, recent mental health problems and clinically significant levels of psychological distress. One-third (34%) of the 2012 REU sample reported recent experience of mental health problems (most commonly depression and/or anxiety), with just two-fifths of these individuals (41%) attending a health professional in relation to these problems, possibly indicating an unmet demand. 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, just over one-tenth (12%) of the sample had recently accessed health services in relation to drug use. The services most commonly accessed by REU were a GP 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 (4%) of the 2012 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.

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

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 greater risk of being arrested as a provider rather than a consumer of the drug. Over one-half (57%) 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 among REU in Tasmania 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 UK 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).

## **7. Evaluation of the impact of, and further targeting of, drug driving interventions among regular drug consumers**

A substantial proportion of the consumers interviewed in the EDRS study in 2012 reported driving while affected by alcohol or drugs (almost one-half of those with access to a vehicle). The proportion of REU reporting DUI of ecstasy and methamphetamine has gradually declined since 2006 but a reversal of this trend was noted in 2012. DUI of cannabis has remained relatively stable over time but has increased over the past two years. Education and law enforcement interventions designed to reduce the prevalence of drug driving are constantly evolving, and monitoring of the impact of such strategies is recommended, particularly where such evaluation could be used to tailor interventions to this demographic.

## **8. 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 'emerging psychoactive substances' 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' (ERDs) in Australia. ERDs are defined as drugs commonly used recreationally in the context of venues such as nightclubs and dance- or music-related events. These drugs primarily include ecstasy, methamphetamine, cocaine, LSD, ketamine and 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 and the Ministerial Council on Drug Strategy as a project under the cost-shared funding arrangement in 2005 and by the Australian Government Department of Health and Ageing since 2006.

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

### 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 ERDs 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 KE and indicator data and to identify emerging trends through comparison with EDRS data collected in Hobart between 2003 and 2011 (Bruno & McLean, 2004b; Matthews & Bruno, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012).

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<sup>2</sup>These reports are available electronically at the National Drug and Alcohol Research Centre 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 regular ecstasy users (REU) in Hobart, interviews with key experts (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 ecstasy and related drugs 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 regular ecstasy users (REU)**

#### **2.1.1 Recruitment**

One hundred regular ecstasy users were interviewed using a structured face-to-face interview between April and June 2012. 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 2012, REU reported hearing about the study through 'snowballing' methods (peer referral) (69%), followed by flyers (19%), street press (10%) and internet (1%). Less than one-fifth (16%) of the 2012 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 65 minutes to complete (range 45-150 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; perceptions of police activity; and general trends in ERD markets. In addition, the following special interest modules were included in 2012: neurological history, body image, and drug policy.

### 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 Tandberg<sup>3</sup> 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 24 years and below, n=56) and an 'older' group (aged over 24 years, n=44). All statistical analyses were conducted using IBM SPSS Statistics 20.0 for Windows (IBM, 2011).

## 2.2 Survey of key experts (KE)

Key experts (KE) who had regular contact with ecstasy users in the six months preceding the interview were eligible to participate in the study. Thirty-one KE participated in semi-structured face-to-face interviews at either their place of work, private residences, locations such as coffee shops or bars or over the phone between July and September 2012. KE included youth workers (n=2), law enforcement personnel (n=4), ambulance/emergency workers (n=1), alcohol and drug counsellors/workers (n=12), NSP workers (n=3), a GP (n=1), a lawyer (n=1), venue security (n=2), bar staff (n=2), and DJs (n=3).

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 and are included in the text of the report. Information from single KE are also 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.

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

*National Drug Strategy Household Surveys (1998, 2001, 2004, 2007, 2010).* The National Drug Strategy Household Survey 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, 1999, 2000, 2002a,b, 2005a,b, 2008a,b, 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 2011/12 reporting period for each drug type and from 2000/01 to 2011/12 for ecstasy.

*Police 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, 2000, 2001, 2002) and Illicit Drug Data Reports provided by the Australian Crime Commission (ACC) (2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012). 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 2011/12 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.

*Public hospital admission data – Australian Institute of Health and Welfare.* The Australian Institute of Health and Welfare has provided hospital morbidity data for 'principal' and 'additional' diagnoses in relation to drug use from the year 1999/00 to 2009/10. Hospital admission data for the 2010/11 and 2011/12 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 for the financial years between 2000/01 and 2010/11. Data for the 2011/12 financial year were not available at the time of publication.

### 3.0 DEMOGRAPHICS

#### Summary:

- The sample of 100 REU interviewed in 2012 were typically in their early twenties (range 18-57 years). Just over one-half of the sample were male (55%).
- A majority of participants (85%) had completed Year 12, and 43% had completed tertiary qualifications after school (university or trade/technical).
- One-half (50%) were employed (either full-time or part-time/casual) and two-fifths (39%) were currently students.
- Few participants had come into contact with drug treatment agencies (5%).
- These demographic characteristics are generally similar to previous cohorts. However, there were significantly more full-time students (35% vs. 11%) and significantly fewer who had already completed a university degree (19% vs. 42%), when compared to 2011.

### 3.1 Overview of REU sample

Table 1 shows the demographic characteristics of REU interviewed for the EDRS in 2012. Just over one-half of the sample was male (55%). The mean age of participants was 24 years (range 18-57 years), and there was no significant difference between the median age of males (25 years) and females (23 years) ( $p > .05$ ).

The majority of participants nominated their sexual identity as heterosexual (81%) and spoke English as their main language (100%). A small proportion (3%) of participants were of Aboriginal and/or Torres Strait Island (A&TSI) descent.

Participants typically lived in their own accommodation (owned or rented) (74%), or were living in their parents' or family's home (23%).

Participants had completed 12 years of school education on average (range 9-12 years), and the majority of participants (85%) had completed Year 12. Two-fifths (43%) had completed tertiary qualifications after school, with one-fifth (19%) having completed a university degree and one-quarter having completed a trade/technical qualification (24%).

One-quarter of participants were either employed on a full-time (25%) or part-time/casual (25%) basis, two-fifths were currently students (35% full-time, 4% part-time), and around one-tenth were currently unemployed (9%). Two-thirds of the sample (67%) reported an annual income between \$13,000 and \$31,199.

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

The demographic characteristics of the 2012 sample were generally similar to those reported among the cohorts between 2003 and 2011. However, in 2012 there were significantly more full-time students (35% vs. 11%,  $\chi^2=12.4$ ,  $p < .001$ ) and significantly fewer who had already completed a university degree (19% vs. 42%,  $\chi^2=10.5$ ,  $p < .01$ ) when compared to 2011.

KE who commented on the demographic characteristics of the ecstasy consumers whom they had regular recent contact with ( $n=7$ ) indicated that this group was representative of a wide range of people from various educational and employment backgrounds including a relatively large proportion of university students. KEs indicated that REU were typically in their early to mid-20s with ages ranging from 16 to 56.

**Table 1: Demographic characteristics of REU sample, 2004-2012**

	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Mean age (range)	23 (18-32)	24 (18-44)	25 (18-61)	23 (17-40)	24 (18-47)	24 (18-42)	23 (17-36)	24 (17-39)	<b>24 (18-57)</b>
Sex (% male)	61	55	58	54	60	64	55	65	<b>55</b>
Heterosexual (%)	93	94	91	93	91	98	96	91	<b>81</b>
English speaking (%)	100	100	99	100	99	100	100	100	<b>100</b>
A&TSI (%)	2	2	2	0	1	-	1	0	<b>3</b>
Accommodation									
Own/rented (%)	82	73	80	70	74	77	69	81	<b>74</b>
Live with family (%)	17	27	19	21	26	21	31	13	<b>23</b>
Boarding house^ (%)	1	-	1	9	-	1	-	1	<b>1</b>
No fixed address (%)	-	-	-	-	-	1	-	4	<b>2</b>
Mean school years* (range)	12 (10-12)	12 (10-12)	12 (9-12)	12 (8-12)	12 (10-12)	12 (10-12)	12 (10-12)	12 (8-12)	<b>12 (9-12)</b>
Tertiary qualifications									
Trade/technical (%)	21	25	28	29	26	22	19	11	<b>24</b>
University (%)	35	26	19	23	27	24	41	42	<b>19</b>
Employment (%)									
Full-time	28	41	33	27	36	27	34	32	25
Part-time/casual	26	19	21	19	23	16	21	23	25
Full-time student	37	31	32	33	19	22	27	11	35
Student/employed	n/a	n/a	n/a	9	16	20	10	16	4
Home duties	-	2	-	-	-	1	-	-	1
Not employed	8	5	14	11	6	14	8	19	9
Annual income (%)	n/a	n/a	n/a	n/a	n/a				
\$1-7,799						3	6	3	1
\$7,800-12,999						11	7	10	13
\$13,000-20,799						26	28	25	26
\$20,800-31,199						27	20	15	27
\$31,200-41,599						11	14	15	11
\$41,600-\$51,999						9	12	10	6
\$52,000+						12	13	23	16
Current drug treatment (%)	1	2	2	-	1	3	1	4	<b>5</b>
Previous prison conviction (%)	1	3	3	1	3	-	1	n/a	<b>3</b>

**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



## 4.0 DRUG USE TRENDS

### 4.1 Drug use history and current drug use

**Summary:**

- REU reported using a range of different drugs in the preceding six months. Recent use of alcohol, tobacco, cannabis, and methamphetamine powder was most common and at least one-quarter had used benzodiazepines, LSD, nitrous oxide, cocaine, mushrooms or amyl nitrite.
- Compared to 2011, a significantly smaller proportion reported recent use of MDA (4% vs. 21%), other opioids (4% vs. 16%) and mephedrone (10% vs. 35%).

Ecstasy was the preferred or favourite drug for almost one-third of participants (32%) followed by cocaine (28%), alcohol (18%), or cannabis (12%). Smaller proportions preferred heroin (3%), methamphetamine powder (3%), LSD (1%), ketamine (1%), tobacco (1%) or benzodiazepines (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 (99%), cannabis (96%), or tobacco (95%) at some stage of their lives, and substantial proportions had ever used methamphetamine powder (87%), psychedelic mushrooms (81%), nitrous oxide (80%), LSD (68%), cocaine (61%), amyl nitrite (53%) or pharmaceutical stimulants (49%).

During the six months preceding the interview, a majority had used alcohol (99%), tobacco (80%), cannabis (69%) and methamphetamine powder (61%), and at least one-quarter had used benzodiazepines (31%), LSD (30%), nitrous oxide (27%) cocaine (26%), mushrooms (26%) or amyl nitrite (24%).

Compared to 2011, a significantly smaller proportion reported recent use of MDA (4% vs. 21%), other opioids (4% vs. 16%) and mephedrone (10% vs. 35%). There were no other changes in recent substance use between the 2011 and 2012 samples.

**Table 2: Percentage of REU reporting lifetime and recent drug use, 2004-2012**

<b>Variable (%)</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100
Alcohol									
Ever used	100	100	100	100	100	100	100	100	<b>99</b>
Use last 6 mths	98	98	95	99	100	99	100	100	<b>98</b>
Cannabis									
Ever used	98	100	100	96	97	98	100	100	<b>96</b>
Use last 6 mths	91	89	82	68	74	76	72	67	<b>69</b>
Tobacco									
Ever used	89	89	94	90	96	92	96	97	<b>95</b>
Use last 6 mths	77	83	81	74	86	77	80	83	<b>80</b>
Meth. Powder									
Ever used	82	89	83	74	84	69	74	76	<b>87</b>
Use last 6 mths	68	77	62	65	59	46	40	47	<b>61</b>
Meth. base									
Ever used	32	35	49	43	31	25	19	16	<b>38*</b>
Use last 6 mths	20	23	40	30	16	14	9	8	<b>16</b>
Crystal meth.									
Ever used	36	29	42	23	33	29	20	25	<b>32</b>
Use last 6 mths	16	10	27	7	15	7	4	5	<b>10</b>
Pharm stim. <sup>#</sup>									
Ever used	39	44	50	40	42	31	22	41	<b>49</b>
Use last 6 mths	14	16	12	19	16	10	9	16	<b>20</b>
Cocaine									
Ever used	32	43	55	54	61	51	75*	75	<b>61</b>
Use last 6 mths	10	20	33	35	35	31	49*	39	<b>26</b>
LSD									
Ever used	51	54	52	40	56	52	46	65*	<b>67</b>
Use last 6 mths	32	31	29	20	41	34	27	43*	<b>30</b>
MDA									
Ever used	20	8	14	8	15	10	14	32*	<b>13*</b>
Use last 6 mths	15	3	3	5	3	8	5	21*	<b>4*</b>
Ketamine									
Ever used	23	24	23	23	26	21	19	32	<b>25</b>
Use last 6 mths	5	11	6	14	6	5	6	8	<b>4</b>
GHB/GBL/1,4B									
Ever used	7	7	9	4	7	11	9	5	<b>10</b>
Use last 6 mths	3	2	3	1	1	3	2	3	<b>2</b>
Amyl nitrite									
Ever used	52	49	41	43	38	67	76	76	<b>53*</b>
Use last 6 mths	23	16	10	20	15	51	51	29*	<b>24</b>
Nitrous oxide									
Ever used	57	69	69	64	62	54	57	59	<b>80*</b>
Use last 6 mths	34	41	39	46	29	32	32	36	<b>27</b>
Benzodiazepines									
Ever used	34	40	48	41	51	36	44	61	<b>45*</b>
Use last 6 mths	23	25	33	25	37	24	27	45*	<b>31</b>
Antidepressants									
Ever used	14	21	20	24	22	16	16	23	<b>16</b>
Use last 6 mths	4	12	9	11	6	10	5	8	<b>4</b>

**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, 2004-2012 (continued)**

<b>Variable (%)</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
<b>Heroin</b>									
Ever used	4	8	10	5	6	6	8	17	<b>10</b>
Use last 6 mths	0	-	2	-	1	3	2	8	<b>1</b>
<b>Methadone</b>									
Ever used	2	5	9	6	3	8	10	8	<b>9</b>
Use last 6 mths	2	1	5	1	2	4	5	4	<b>4</b>
<b>Buprenorphine</b>									
Ever used	-	2	3	1	2	2	5	8	<b>4</b>
Use last 6 mths	-	1	2	1	1	1	1	3	<b>2</b>
<b>Other opioids</b>									
Ever used	19	25	33	23	29	19	19	29	<b>16</b>
Use last 6 mths	8	13	14	8	17	6	4	16*	<b>4*</b>
<b>Mushrooms</b>									
Ever used	60	63	74	66	61	56	58	64	<b>81*</b>
Use last 6 mths	41	40	55	39	31	21	18	23	<b>26</b>
<b>Mephedrone</b>									
Ever used	-	-	-	-	1	14	64*	37	<b>29</b>
Use last 6 mths	-	-	-	-	1	14	47*	35	<b>10*</b>
<b>Over counter codeine<sup>^</sup></b>									
Ever used	n/a	n/a	n/a	n/a	n/a	17	12	n/a	<b>21</b>
Use last 6 mths						9	5	9	<b>16</b>
<b>Over counter stimulants<sup>^</sup></b>									
Ever used	n/a	n/a	n/a	n/a	n/a	10	13	20	<b>12</b>
Use last 6 mths						6	3	5	<b>4</b>

**Source: EDRS interviews**

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

<sup>^</sup> 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 17 years of age (range 13-29 years) compared to an age of 19-20 years among previous samples.
- Ecstasy had typically been used in tablet (92%) or capsule (75%) form in the last six months, with use of ecstasy powder less common (30%). The proportion reporting recent use of ecstasy capsules increased significantly in 2010 and has remained stable since this time.
- Ecstasy was typically swallowed, but snorting of ecstasy was also common. In 2010 there was a significant increase in the snorting of ecstasy tablets (89% vs. 71%) and capsules (82% vs. 38%) relative to 2009 and this has been maintained in 2011 and 2012.
- On average, ecstasy had been used fortnightly with younger participants reporting a higher median frequency of use (18 days) relative to older participants (10 days). One-quarter had recently used ecstasy weekly or more frequently (23%) and/or had used ecstasy in a 'binge session' (a continuous 48 hour period of drug use without sleep) (27%).
- A median of two ecstasy tablets were taken in a typical session of use in the last six months and almost one-fifth (17%) 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 (89%) had used other drugs when last under the influence of ecstasy and almost two-thirds (63%) used other drugs when last coming down from ecstasy. Alcohol, cannabis, and tobacco were the drugs most 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%).

### 4.2.1 Ecstasy use among REU

The mean age of first ecstasy use was 17 years (range 13-29 years) compared to 19-20 years among previous samples. There was no significant difference in the mean age of first use for males (18 years) and females (17 years). Ecstasy had been used by this group for a median of 5.5 years (range 1-18 years) and all participants had been using ecstasy for at least one year.

Ecstasy had typically been used in tablet (92%) or capsule (75%) form in the last six months, with over one-quarter (30%) reporting recent use of ecstasy powder (Table 3). The proportion reporting recent use of ecstasy capsules increased in 2010 (81%, 95%CI 72-87) relative to 2009 (48%, 95%CI 38-58) but has remained stable since this time (75-80%).

The majority of REU had mainly ingested ecstasy orally (75%) in the last six months and one-quarter (24%) reported that they had mainly snorted the drug during this time.

Ecstasy (tablets, powder, capsules) had been used by REU on a median of 14 days (range 6-50 days), or on average fortnightly in the six months preceding the interview (Table 3). There was no significant difference in the median frequency of use for males (17 days, range 6-50) and females (14 days, range 6-35), ( $p>.05$ ), but the median frequency of use was greater for 'younger' (18 days, range 6-50) relative to 'older' (10 days, range 6-48) participants (based on a median split for age). Around one-quarter reported using ecstasy weekly or more frequently (23%, 95%CI 15-33) and a similar proportion (27%, 95%CI 19-36) had recently 'binged' on ecstasy or had used for more than 48 hours continuously without sleep (see also Section 7.6).

Ecstasy tablets had recently been swallowed (100%) or snorted (85%), while smaller proportions had recently injected (2%), or smoked (2%) (ground-up) tablets. The median frequency of use for ecstasy tablets was six days (range 1-10) 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 1-4), and the median number of ecstasy tablets consumed in the heaviest session of use was three tablets (range 1-13). Almost one-fifth (17%) reported consuming more than two tablets in a typical session of use.

Ecstasy capsules had been swallowed (93%), snorted (80%), smoked (7%) or injected (3%) in the last six months. The median frequency of use was 5 days (range 1-48) in the last six months and similar to the median frequency of use in 2011 (6 days).

Ecstasy powder had typically been snorted (80%) or swallowed (73%) on a median of 5 days (range 1-48) during the previous six months, which is similar to the median of 4 observed among the 2011 sample.

The most common last locations of ecstasy use (Table 3) were a nightclub (43%), pub/bar (18%), or private residences (18% private party, 3% friend's home, 8% own home).

The comments of KE were generally consistent with reports of REU. The majority who commented ( $n=6$ ) noted that ecstasy was mainly taken in pill form but that use of ecstasy capsules and powder forms were also common.

**Table 3: Patterns of ecstasy use among REU, 2004-2012**

	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100
Mean age first used ecstasy (range)	20 (15-32)	20 (14-42)	20 (14-55)	19 (14-32)	19 (14-42)	19 (11-30)	19 (13-30)	19 (14-29)	17 (13-29)
<b>Use in last 6 mths</b>									
Forms used (%)									
Tablets/pills	n/a	100	100	100	100	100	96	95	92
Capsules	n/a	28	19	47	18	48	81	80	75
Powder	n/a	18	13	5	6	12	21	26	30
Median days use <sup>#</sup>	12	15	12	12	12	12	11	12	14
Use weekly or more often (%) <sup>#</sup>	24	29	22	23	17	17	10	23	23
Recent binge on ecstasy* (%)	34	37	43	38	33	26	19	14	27
Median pills 'typical' session (range)	2 (.5-12)	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)
Median pills 'biggest' session (range)	3 (1-30)	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)
Used > 2 pills in typical session (%)	18	24	37	21	23	11	15	14	17
<b>Main route (%)</b>									
Swallowed	94	96	95	96	93	89	70	71	75
Snorted	6	3	4	3	6	10	30	29	24
Injected	-	1	1	-	-	1	-	-	1
Shelved/shafted	-	-	-	1	1	-	-	-	0
<b>Last location (%)</b>									
Home	10	13	20	10	11	10	9	4	8
Dealer's home	-	-	1	-	-	-	-	1	1
Friend's home	15	13	22	17	20	7	10	8	3
Rave/dance party	37	16	18	11	7	7	3	4	7
Nightclub	22	40	18	37	36	46	41	37	43
Pub/Bar	2	3	-	-	4	7	20	23	9
Private party	10	8	14	19	6	5	11	14	18
Outdoors	1	1	2	-	1	2	-	3	2
Live music event	1	4	2	6	14	14	6	5	7
Other	2	2	1	-	-	1	-	-	1

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 2012 sample (89%) reported use of other drugs when under the influence of ecstasy on the last occasion of use and two-thirds (63%) 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 (85%), tobacco (54%), and cannabis (24%). Notably, a large majority of the sample (85%) reported drinking more than five standard drinks the last time that they were under the influence of ecstasy.

The drugs most commonly used when coming down from ecstasy on the last occasion were cannabis (44%), tobacco (26%), and benzodiazepines (10%). A significantly greater proportion of the 2012 sample reported drinking more than 5 drinks when coming down from ecstasy on the last occasion of use relative to 2011 (29% vs. 7%).

**Table 4: Drugs used when under the influence of ecstasy and when coming down on last occasion in the last six months, 2009-2012**

	Under the influence of ecstasy				Coming down from ecstasy			
	2009 n=87	2010 n=100	2011 n=71	2012 n=100	2009 n=87	2010 n=100	2011 n=72	2012 n=100
None (%)	5	1	1	<b>11</b>	59	55	49	<b>37</b>
Meth. powder (%)	3	6	9	<b>1</b>	-	-	1	-
Meth. base (%)	5	1	-	-	-	-	-	-
Crystal meth. (%)	2	-	-	<b>1</b>	-	-	-	-
Pharm. stimulants (%)	2	1	-	-	-	-	-	-
Cocaine (%)	2	4	3	<b>3</b>	1	-	-	<b>2</b>
LSD (%)	6	3	9	<b>6</b>	-	-	-	-
Ketamine (%)	-	-	-	-	-	-	-	-
GHB (%)	-	-	-	-	-	-	-	-
Amyl nitrite (%)	6	3	1	<b>1</b>	-	2	-	-
Nitrous oxide (%)	8	3	1	<b>2</b>	1	2	-	-
Cannabis (%)	24	29	32	<b>24</b>	28	29	36	<b>44</b>
Alcohol								
Usually drink (%)	87	94	97	<b>85</b>	14	16	8	<b>35</b>
> 5 std drinks (%)	79	83	92	<b>85</b>	6	4	7	<b>29</b>
Methadone (%)	1	-	1	-	-	-	-	-
Other opioids (%)	-	-	-	-	2	1	-	-
Tobacco (%)	38	48	61	<b>54</b>	18	13	15	<b>26</b>
Antidepressants (%)	-	-	-	-	-	-	-	-
Benzodiazepines (%)	-	2	4	<b>2</b>	6	14	13	<b>10</b>
Mushrooms (%)	2	-	-	<b>3</b>	-	-	-	-
Mephedrone/methylone (%)	2	10	3	<b>1</b>	-	-	1	-
Energy drinks	52	26	24	<b>30</b>	-	-	-	<b>2</b>
OTC codeine	-	-	-	-	-	-	-	<b>3</b>
Other (%)	-	-	4	<b>4</b>	2	-	4	<b>4</b>

Source: EDRS interviews

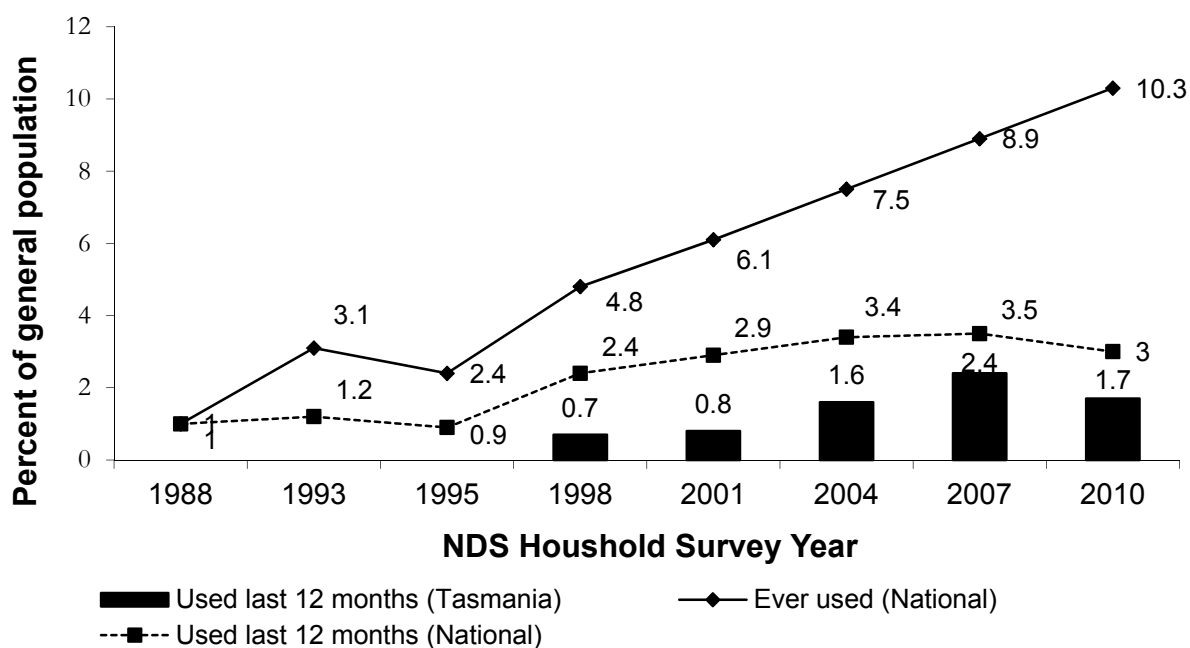
### 4.2.3 Ecstasy use in the general population

Figure 1 shows the prevalence of lifetime and recent ecstasy use in the general population and in Tasmania based on data collected by the National Drug Strategy Household Survey (NDSHS) between 1988 and 2010 (Australian Institute of Health and Welfare, 1999, 2000, 2002a, b, 2005a, b, 2008a, b, 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 Tasmanian sample reporting lifetime use of ecstasy was not available from 2001 onwards as lifetime use was not reported for Tasmania.

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:

- Two-thirds (64%) of the 2012 REU sample had used some form of methamphetamine in the preceding six months which is not statistically different to 2011 (52%, 95%CI 41-63%), but significantly higher relative to 2010 (48% 95%CI 38-58%). This upward trend in recent use is in contrast to the downward trend observed among both REU and the general population (NDSHS, 2007) in recent years.
- Methamphetamine was used on a median of three days during this period (once every two months on average) in relatively small amounts (1-2 points, or 0.1-0.2g).
- Recent use of methamphetamine powder was most common (61%), with low levels of use for methamphetamine base (16%) and crystal methamphetamine (10%).
- The proportion reporting recent use of methamphetamine powder (61%) is greater than the proportion between 2009 and 2011 (40-47%) but similar to the years prior to this (62-77%). Methamphetamine powder was typically swallowed or snorted; base was typically swallowed, smoked or injected, whereas 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 methamphetamine<sup>4</sup> (rather than amphetamine) steadily increased until methamphetamine clearly dominated the market (ABC, 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 methamphetamine<sup>5</sup> 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

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

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

appearing white to off-white in colour, 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 (methylsulfonylmethane, MSM) in the late stages of production. The introduction of MSM 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 the current and 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**

Four-fifths (89%), of the 2012 sample reported lifetime use of methamphetamine and two-thirds (64%, 95%CI 54-72%) had used methamphetamine during the six months preceding the interview which is not significantly different to the proportion in 2011 (52%, 95%CI 41-63%) but significantly higher relative to 2010 (48% 95%CI 38-58%). There was no significant difference in the proportion of males (66%) and females (62%) or younger (68%) and older (59%) participants who had recently used any form of methamphetamine. The median frequency of use of any form of methamphetamine over the last six months was 3 days (range 1-55 days).

Among KE who commented on the forms of methamphetamine currently available in Hobart, powder and base were most commonly noted, while crystal use was considered to be relatively low (n=11).

**Table 5: Patterns of methamphetamine (any form) use among REU, 2004-2012**

	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	85	90	94	81	85	72	78	84	<b>89</b>
Used last 6 mths (%)	76	78	78	70	63	52	48	52	<b>64</b>
Median days use last 6 mths (range)	6 (1-60)	6 (1-140)	6 (1-166)	4 (1-130)	3 (1-41)	3 (1-72)	2 (1-26)	3 (1-48)	<b>3 (1-55)</b>

**Source: EDRS interviews**

*Methamphetamine powder (speed)*

A majority (87%) of the 2012 sample reported lifetime use of methamphetamine powder (Table 6). The median age of first use was 18 years (range 13-24 years), and there was no significant difference between the age of first use for males and females.

Three-fifths (61%) had used methamphetamine powder during the six months preceding the interview, which is greater than the proportion between 2009 and 2011 (40-47%) but similar to the years prior to this (62-77%). There was no significant difference between the proportion of males (62%) and females (60%), or the proportion of 'older' (57%) and 'younger' (64%) participants (based on a median split for age) reporting recent use of methamphetamine powder.

The majority of those who had recently used methamphetamine powder had swallowed (64%) or snorted (77%) the drug during the six months preceding the interview, and smaller proportions reported injecting (7%), or smoking (5%) the drug.

The median frequency of use during the six months preceding the interview was 3 days (range 1-40 days), or, on average, once every three months (Table 6). Three-quarters (77%) of those who had recently used methamphetamine powder had done so once monthly or less. The usual amount used was 2 points (0.2 of a gram) in both a typical session ( $n=33$ ) and the biggest session ( $n=25$ ) of use in the last six months. Other participants ( $n=27$ ) reported using a median of 0.5 grams (range 0.25-2g) in a typical session and 0.9 grams (range 0.25-4 g) in the biggest session of use.

**Table 6: Patterns of methamphetamine powder (speed) use among REU, 2005-2012**

<b>Methamphetamine powder</b>	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	89	83	74	84	69	74	76	<b>87</b>
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)	<b>18 (13-24)</b>
Use last 6 mths (%)	77	62	65	59	46	40	47	<b>61</b>
<b>Of those who used last 6 mths</b>								
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)	<b>3 (1-40)</b>
Route (%).								
Smoked	8	8	8	9	2	3	15	<b>5</b>
Snorted	56	63	49	58	78	65	60	<b>77</b>
Swallowed	86	89	85	78	59	73	69	<b>64</b>
Injected	6	8	9	10	17	5	18	<b>7</b>
Shaft/shelved	-	2	2	-	-	-	-	-
Median points used								
Typical session (range)	1 (0.2-5)	1 (.25-5)	1 (.25-5)	1 (0.5-4)	2 (.25-4)	2 (.25-4)	2 (.5-5)	<b>2 (1-3)</b>
Biggest session (range)	1.5 (0.2-5)	2 (.13-6)	2 (.25-5)	2 (0.5-6)	2 (0.5-6)	2 (.25-8)	2 (.5-6)	<b>2 (1-6)</b>

Source: EDRS interviews

#### *Methamphetamine base*

Almost two-fifths of the 2012 sample (38%, 95%CI 29-48%) had used methamphetamine base at some stage of their lives (Table 7), which is significantly greater relative to 2011 (16% 95%CI 9-26%) and 2010 (19%, 95%CI 13-28%). The median age of first use of methamphetamine base was 19 years (range 13-35 years).

Almost one-fifth (16%) of the 2012 sample had used methamphetamine base in the six months preceding the interview, which is not significantly different to 2010 and 2011 (8-9%). There was no significant difference in the proportion of males (13%) and females (20%) or the proportion of 'older' (14%) and 'younger' (18%) participants (based on a median split for age) who had recently used base ( $p>.05$ ).

The majority of those who had recently used methamphetamine base had swallowed (100%), smoked (19%), or injected (13%) the drug. The median frequency of use was two days (range 1-20 days), or once every three months. The median quantity of methamphetamine base used in the preceding six months was 2 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, 2005-2012**

<b>Meth. base</b>	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	35	49	43	31	25	19	16	<b>38</b>
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)	<b>19 (13-35)</b>
Use last 6 mths (%)	23	40	30	16	14	9	8	<b>16</b>
<b>Of those who used last 6 mths</b>								
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)	<b>2 (1-20)</b>
Route (%).								
Smoked	-	3	3	-	14	33	-	<b>19</b>
Snorted	39	15	13	25	14	33	-	<b>6</b>
Swallowed	91	88	90	88	79	78	50	<b>100</b>
Injected	22	20	7	19	50	11	50	<b>13</b>
Shaft/shelved)	4	-	-	-	-	-	-	<b>-</b>
Median points								
Typical session (range)	1 (.25-5)	2 (0.5-3)	2 (0.5-3)	2 (.5-4)	1 (.25-5)	1.5 (.25-3)	2 (2-2)	<b>2 (.5-3)</b>
Biggest session (range)	1 (.25-10)	2 (.5-10)	2 (.5-6)	2 (0.5-5)	2 (.5-5)	2 (.25-3)	4 (2-4)	<b>2 (1-4)</b>

**Source: EDRS interviews***Crystal methamphetamine*

One-third (32%) of the REU interviewed in 2012 reported lifetime use of crystal methamphetamine (Table 8) and 10% reported use during the six months preceding the interview, similar to the proportion in 2011 (5%). Those who had recently used crystal methamphetamine had smoked, swallowed, or snorted the drug on a median of 1.5 (range 1-12 days) during the preceding six months, with a median of one point (0.1 of a gram) used in a typical session of use.

**Table 8: Patterns of crystal methamphetamine use among REU, 2005-2012**

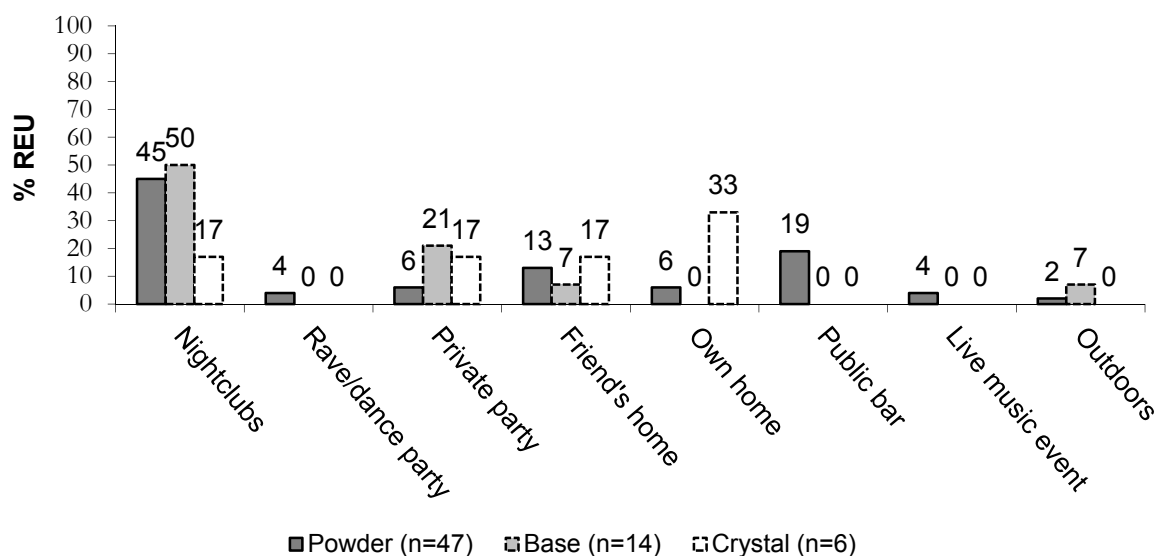
<b>Crystal methamphetamine</b>	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	29	42	23	33	29	20	25	<b>32</b>
Median age of first use (range)	23 (15-29)	23 (15-34)	23 (16-31)	20 (16-30)	21 (13-35)	23 (18-36)	19 (14-30)	<b>20 (15-36)</b>
Use last 6 mths (%)	10	27	7	15	7	4	5	<b>10</b>
<b>Of those who used last 6 mths</b>								
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)	<b>1.5 (1-12)</b>
Route (%).								
Smoked	20	78	43	53	29	100	50	<b>70</b>
Snorted	20	15	14	40	29	-	25	<b>10</b>
Swallowed	40	48	71	33	14	-	25	<b>40</b>
Injected	50	22	14	13	43	-	-	<b>20</b>
Shaft/shelved	-	-	-	-	-	-	-	<b>-</b>
Median points used								
Typical session (range)	1 (0.5-3)	1 (.5-3.5)	2 (0.5-3)	1 (1-4)	1.5 (0.2-4)	5 (n=1)	2.5 (5-15)	<b>1 (1-3)</b>
Biggest session (range)	1 (.5-10)	2 (.5-10)	2 (1-3)	1 (1-3)	3 (0.2-8)	5 (n=1)	2.5 (5-15)	<b>1.75 (1-5)</b>

Source: EDRS interviews

#### *Locations of methamphetamine use*

Figure 2 shows the last location of use for each methamphetamine form 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). Data for crystal and base methamphetamine should be treated with caution due to small sample sizes. The most common locations of last use included public bars, nightclubs, and private residences.

**Figure 2: Location of most recent methamphetamine use by form, 2012**



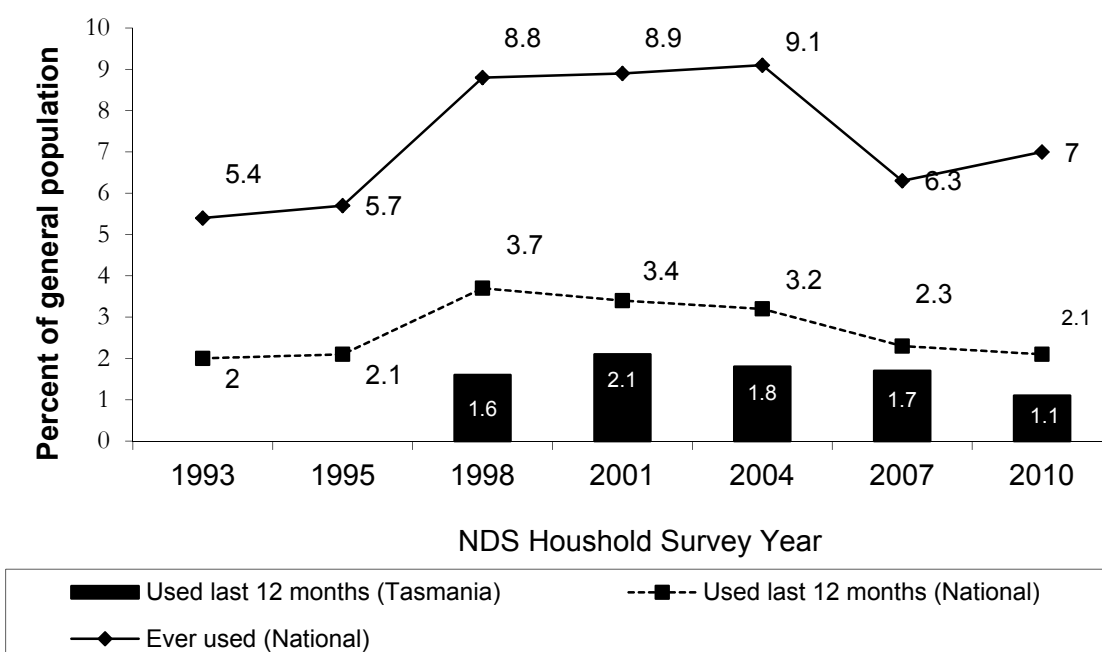
Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

#### 4.3.2 Methamphetamine in the general population

According to the findings of the 2007 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 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: National Drug Strategy Household Survey 1993-2010

## 4.4 Cocaine use

### Summary:

- One-quarter (26%) of the 2012 sample had used cocaine during the six months preceding the interview. This was not significantly different to the proportion in 2011 (39%) but significantly fewer relative to 2010 where almost one-half of the sample reported recent use (49%). This downward trend in recent use is in contrast to the upward trend observed in the Tasmanian general population in recent years.
- Cocaine was most typically snorted and was used on a median frequency of two days (range 1-20 days) in the last six months compared to a median of 1 day among the 2011 sample. An average of 0.5 grams was used in a typical session.
- Cocaine was typically last used at a nightclub, a public bar, or a private residence.

### 4.4.1 Cocaine use among REU

Three-fifths of the 2012 REU sample (61%) had ever used cocaine (see Table 9) which tended to be less than 2011 (75%,  $p=.08$ ). The median age of first use of cocaine was 20 years (range 15-30 years), and the mean age of first use was significantly younger for females (19.5 years) relative to males (21 years),  $F(1,58)=4.85$ ,  $p=.032$ .

One-quarter (26%, 95%CI 18-35%) of the 2012 sample had used cocaine during the six months preceding the interview (see Table 9), which was not significantly different to the proportion in 2011 (39%, 95%CI 28-50%) but significantly fewer relative to 2010 where almost one-half of the sample reported recent use (49%, 95%CI 39-59%). There was no significant difference in the proportion of males (24%) and females (29%) or older (32%) and younger (21%) participants who had recently used cocaine.

The median frequency of cocaine use was 2 days (range 1-20 days) in the preceding six months compared to one day in 2011. One-third (31%) of those who had recently used cocaine had done so on only one occasion in the preceding six months, compared to 54% in 2011.

Those that had recently used cocaine reported using a median of 0.5 grams (range 0.1-2 grams) or a median of 1.5 'points' (range 1-4 points) in a typical session, and 0.5 grams (range 0.1-5 grams) or 3 'points' (range 1-7 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 (96%) or swallowed (54%) the drug.

The most common locations for last use of cocaine (Table 9) were at a nightclub (30%) or public bar (40%), followed by the participants' own home (10%), a friend's home (10%) or live music event (10%).

There were few KE comments in relation to cocaine use, though several KE ( $n=5$ ) 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, 2004-2012**

<b>Cocaine</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	32	43	55	54	61	51	75	75	<b>61</b>
Median age first used (range)	21 (16-32)	20 (15-30)	22 (17-30)	22 (17-31)	21 (18-46)	22 (16-31)	21 (13-30)	22 (15-36)	<b>20 (15-30)</b>
Used in last 6 months (%)	10	20	33	35	35	31	49	39	<b>26</b>
<b>Of those used last 6 mths</b>									
Median days use (range)	2 (1-20)	1 (1-5)	2 (1-6)	2 (1-72)	2 (1-10)	2 (1-24)	3 (1-20)	1 (1-30)	<b>2 (1-20)</b>
Route (%)									
Smoked	-	15	-	3	-	3	2	-	-
Snorted	70	90	94	74	94	94	100	100	<b>96</b>
Swallowed	30	10	39	51	31	55	40	24	<b>54</b>
Injected	10	-	6	-	-	3	-	-	-
Shafted/shelved	-	-	-	-	-	-	-	-	-
Median amounts used per session									
Grams typical (range)	0.5*	0.5*	0.5	0.5	0.5	0.25	0.5	0.5 (0.1-5)	<b>0.5 (0.1-2)</b>
Grams biggest (range)	1.0*	0.5*	1	0.5	0.5	0.25	1	0.5 (0.1-5)	<b>0.5 (0.1-5)</b>
Points typical (range)	1.0*	2	2	2	2*	2*	2	1.75* (1-3)	<b>1.5* (1-4)</b>
Points biggest (range)	0.75*	2	2	2	2*	2*	2	2* (1-3)	<b>3* (1-7)</b>
Location last used (%)	n=6	n=11	n=21	n=19	n=28	n=11	n=23	n=17	<b>n=10</b>
Home	7	18	19	16	7	18	-	12	<b>10</b>
Dealer's home	-	-	5	-	4	-	-	-	-
Friend's home	33	9	33	32	21	9	26	18	<b>10</b>
Rave/dance party	17	9	-	5	4	9	4	-	-
Nightclub	33	18	19	11	25	36	17	29	<b>30</b>
Public bar	-	18	-	-	7	9	26	24	<b>40</b>
Private party	-	-	14	16	29	-	17	6	-
Outdoors	-	-	5	-	-	-	-	-	-
Live music event	-	-	-	11	-	18	4	12	<b>10</b>
Public place	-	9	-	11	4	-	-	-	-
Work	-	9	-	-	-	-	-	-	-
Other	-	9	5	-	-	-	-	-	-

**Source: EDRS interviews**

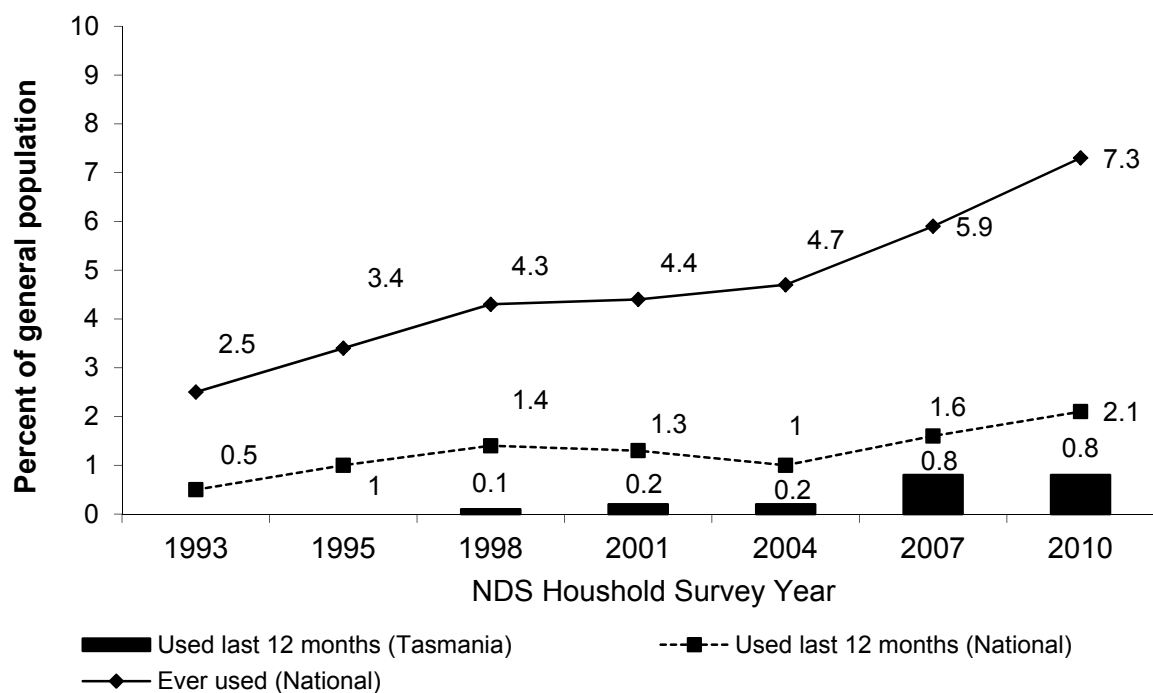
\* n&lt;10

#### 4.4.2 Cocaine use in the general population

According to the findings of the National Drug Strategy Household Survey (Figure 4), the lifetime and past yearly use of cocaine has 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: National Drug Strategy Household Survey 1993-2010

## 4.5 LSD use

### Summary:

- Over three-fifths (67%) of the 2012 sample had used LSD at some stage of their lives. Almost one-third (30%) had used LSD in the six months preceding the interview which is not significantly different to the proportion in 2011 (43%) and 2010 (27%).
- LSD had been used on a median of 3 days (range 1-30 days) in the preceding six months.
- Two tabs or drops of liquid LSD (range 0.5-4) was taken orally in a typical session of use which is higher than the median of one tab/drop observed in previous years.
- LSD was last used at a rave/doof/dance party or at private residences such as the consumer's own home or a friend's home, or a private party.

### 4.5.1 LSD use among REU

Table 10 shows that over three-fifths (67%) of the 2012 REU sample had used LSD at some stage of their lives. The median age of first use was 17 years (range 14-25 years) which is lower than previous years (19-20 years), and there was no significant difference between the mean age of first use for males (18 years) and females (17 years).

Almost one-third (30%, 95%CI 22-40%) of the 2012 sample reported use of LSD during the six months preceding the interview (Table 10) which is not significantly different to the proportion in 2011 (43%, 95%CI 32-54) or 2010 (27%, 95%CI 19-36). There was no significant difference in the proportion of males (35%) and females (24%) or the proportion of 'younger' (38%) and 'older' (21%) participants reporting recent use.

The majority (97%) 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 3 days (range 1-30 days), which is lower than 2011 (3.5 days) but higher relative to the years prior to this. There was no significant difference in the median frequency of use for males and females (3 days).

The median number of tabs/drops of LSD used in a typical session was 2 (range 0.5-4) which is greater than the median of 1 reported in previous years. The number of tabs/drops used in the biggest session of use was 2 (range 1.5-6).

REU were asked which locations they had last used LSD (to be under the influence of the drug, not necessarily the location of ingestion) during the 6 months preceding the interview (Table 10). LSD was last used at a rave/doof/dance party (39%) or at private residences such as the consumer's own home (8%), a friend's home (23%), or a private party (12%).

**Table 10: Patterns of LSD use among REU, 2004-2012**

<b>LSD</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	51	54	52	40	56	52	46	65	<b>67</b>
Median age of first use (range)	19 (14-32)	18 (15-31)	19 (14-35)	19 (13-32)	20 (16-47)	20 (14-30)	19 (15-27)	19 (15-37)	<b>17 (14-25)</b>
Used in last 6 months (%)	32	31	29	20	41	34	27	43	<b>30</b>
<b>Of those used last 6 months</b>									
Median days use (range)	2.5 (1-12)	1 (1-15)	2 (1-15)	2 (1-25)	2 (1-15)	2 (1-15)	2.5 (1-24)	3.5 (1-48)	<b>3 (1-30)</b>
Route (%)									
Smoked	3	-	3	-	-	-	-	-	<b>3</b>
Snorted	-	-	3	-	-	-	-	6	<b>7</b>
Swallowed	100	100	100	100	100	100	100	94	<b>97</b>
Injected	-	-	-	-	-	3	-	3	-
Median tabs/drops									
Typical session (range)	1	1	1	1	1	1	1	1 (.25-5)	<b>2 (0.5-4)</b>
Biggest session (range)	1.25	1	2	2	2	2	1	1 (.25-16)	<b>2 (1.5-6)</b>
Location last used (%)	n=30	n=30	n=26	n=15	n=40	n=31	n=23	n=27	<b>n=26</b>
Home	17	13	23	27	28	23	13	22	<b>8</b>
Dealer's home	-	-	-	-	-	-	-	-	-
Friend's home	17	40	15	-	20	26	30	19	<b>23</b>
Dance party*	17	10	31	27	20	7	22	7	<b>39</b>
Nightclub	17	13	4	13	3	7	9	7	<b>4</b>
Pub	3	-	-	-	-	-	9	7	-
Restaurant/café	3	-	-	-	-	-	-	-	-
Private party	3	-	12	13	3	10	4	4	<b>12</b>
Outdoors	13	10	12	20	18	23	17	4	<b>8</b>
Live music event	7	7	-	-	8	7	4	15	<b>4</b>
Public place	-	3	4	-	3	-	-	7	<b>4</b>
Other	3	-	-	-	-	-	-	4	-

**Source: EDRS interviews**

\* includes raves and doofs

#### 4.5.2 LSD use in the general population

In the 2010 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 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-fifths (69%) had used cannabis during the six months preceding the interview, with recent use more likely among younger (82%) relative to older (52%) participants.
- Cannabis had typically been smoked, with around one-half recently ingesting the drug.
- The median frequency of cannabis use was 120 days (range 1-180) or approximately five days per week, compared to a significantly lower median frequency in previous years (11-25 days). Daily cannabis smoking was reported among one-third (32%) of the entire sample which is also significantly greater than previous years (5-17%).
- The median quantities used on the last day of use during this time were 8 cones (range 1-30) or 1 joint (range 0.2-6).
- 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 sample (96%) of REU surveyed in 2012 had used cannabis at some stage of their lives (Table 11). The median age of first cannabis use was 15 years (range 8-23 years), and there was no significant difference in the age of first use for males (15 years) and females (15 years).

Two-thirds (69%, 95%CI 59-77%) of respondents had used cannabis during the six months preceding the interview, which is similar to the proportion of the sample between 2006 and 2011 (67-82%), but lower relative to that among the 2003-2005 cohorts (e.g., 2005: 89%, 95%CI 81-94%,  $\chi^2=10.9$ ,  $p<.001$ ). There was no significant difference in the proportion of males (75%) and females (62%) reporting recent use of cannabis; however, recent cannabis use was more likely to be reported by younger (82%) relative to older (52%) participants (based on a median split for age).

A majority of those reporting recent use had smoked cannabis (100%) and around one-half (48%) had ingested cannabis during the six months preceding the interview.

The median frequency of cannabis use during this six month period was 120 days (range 1-180 days), or approximately five times a week, which is greater than the median frequency in previous years (11-25 days). Almost one-third (32%) of the sample reported daily use of cannabis during the last six months, which is significantly greater than previous years (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). Participants were more likely to have last smoked cones ( $n=41$ ) relative to joints ( $n=28$ ). The median number of cones smoked on the last day of use was 8 (range 1-30) and the median number of joints was 1 (range 0.2-6). It has been estimated that the quantity of a standard cone is 0.0825 g or 1/3 of a standard cannabis unit which is defined as 1/4 of a gram (Ritter, Lancaster, Grech & Reuter, 2011).

**Table 11: Patterns of cannabis use of REU, 2004-2012**

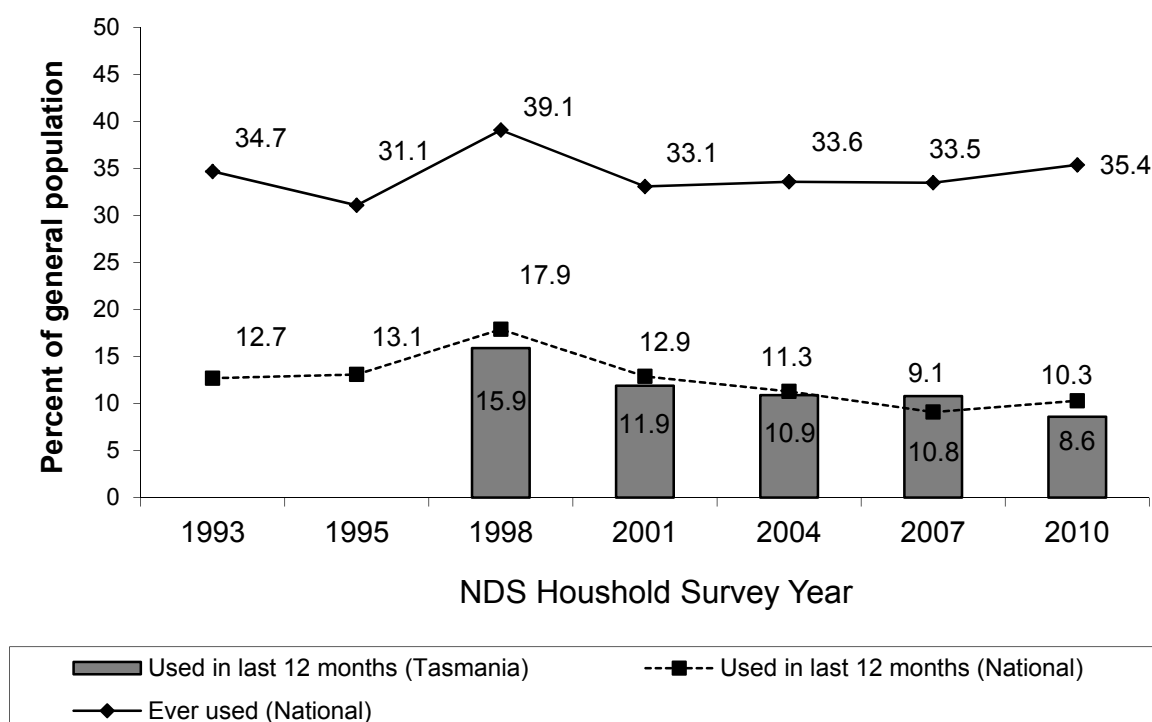
<b>Cannabis</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	98	100	100	96	97	98	100	100	<b>96</b>
Median age first used (range)	15 (9-22)	15 (10-21)	15 (8-27)	15 (12-22)	15 (11-24)	15 (11-23)	15 (10-22)	15 (12-21)	<b>15 (8-23)</b>
Used last 6 mths (%)	91	89	82	68	74	76	72	67	<b>69</b>
Used daily last 6 mths (%)	9	17	13	5	8	6	5	8	<b>32</b>
Median days used last 6 mths (range)	24 (1-180)	24 (1-180)	25 (1-180)	11 (1-180)	15 (1-180)	15 (1-180)	12 (1-180)	24 (1-180)	<b>120 (1-180)</b>
Median cones last session (range)	n/a	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	<b>8 (1-30) n=41</b>
Median joints last session (range)	n/a	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	<b>1 (.2-6) n=28</b>

Source: EDRS interviews

#### 4.6.1 Cannabis use in the general population

In the 2010 National Drug Strategy Household Survey (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, nationally 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: National Drug Strategy Household Survey 1993-2010

## 4.7 Other drug use

### Summary:

- Almost all (98%) of the 2012 REU sample had recently consumed alcohol, on an average of three to four days a week in the last six months. A majority (96%) had used alcohol at least weekly (but not daily), which is significantly greater than the 2011 sample (87%), and 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 (80%) of the sample. Almost one-half (49%) reported daily use in the last six months which is a significant increase relative to the last 5 years (31-36%) and higher than the 2010 population estimate for this age group (20-29) both in Tasmania (25.5%) and nationally (18%).
- Consistent with previous years, less than one-tenth reported recent use of ketamine (4%), or GHB/GBL/1,4B (2%).
- Just 4% reported recent use of MDA which is a significant reduction relative to the increase in recent use (21%) observed among the 2011 sample.
- One-quarter (26%) had used psychedelic mushrooms on a median of 2.5 days (range 1-24 days) in the last six months.
- One-quarter (24%) reported recent use of amyl nitrite, and frequency of use was relatively low at two days in the last six months or approximately once every three months.
- One-quarter (27%) reported low frequency (less than monthly) use of nitrous oxide.
- Almost one-third (31%) of REU had used benzodiazepines during the last six months, with one-quarter (25%) reporting illicit (non-prescribed) use and one-tenth (10%) 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 among REU was relatively low in frequency, at 5 days (range 1-90 days) in the last six months.
- A small proportion of the sample (4%) had recently used antidepressants; 4% reported recent licit use and 1% reported recent illicit use.
- One-fifth (20%) of REU reported recent illicit use of pharmaceutical stimulants (such as dexamphetamine or methylphenidate) in 2012. The median frequency of use was 3 days (range 1-20 days) in the last six months, with a median of 2 tablets (range 1-7.5) taken in a typical session of use.
- Only small proportions of the 2012 sample had recently used heroin (1%), methadone (4%), buprenorphine (2%) or 'other opioids' (restricted pharmaceuticals and alkaloid poppy derivatives).
- Less than one-tenth reported recreational use of stimulant based (5%) over-the-counter preparations and 16% reported recent non-pain use of over-the-counter codeine preparations.
- The proportion of REU reporting recent use of mephedrone in 2012 (10%) was significantly fewer relative to both 2011 (27%, 95%CI 18-38%) and 2010 when almost one-half of the sample reported recent use (47%, 95%CI 38-57%). Mephedrone was snorted or swallowed on a median of 2.5 days (range 1-12 days) in the last six months.
- Recent use of other emerging psychoactive substances (EPS) was relatively low. The most commonly used substances in the last six months were DMT (6%), DXM (4%) and synthetic cannabinoids (4%). In addition, over one-tenth of the sample reported recent use of capsules of 'unknown contents' (16%) or use of 'herbal highs' (8%).

### 4.7.1 Alcohol

Almost the entire sample (99%) of REU interviewed in 2012 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 8-18 years) and there was no significant difference in the mean age of first use for males (13 years) and females (13 years).

A large majority (98%) had used alcohol during the six months preceding the interview, with a median frequency of 80 days (range 13-180 days), or approximately three to four days a week on average, which is higher than the median frequency of use in previous years (48-72%). There was no significant difference in the median frequency of use for males and females or 'older' and 'younger' participants.

Based on data from the 2010 National Drug Strategy Household Survey (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 (94%) of the 2012 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 2012 was 9% compared to 2.3% among those aged 20-29 in the general population nationally.

**Table 12: Patterns of alcohol use of REU, 2004-2012**

<b>Alcohol</b>	<b>2004 n=100</b>	<b>2005 n=100</b>	<b>2006 n=100</b>	<b>2007 n=100</b>	<b>2008 n=100</b>	<b>2009 n=100</b>	<b>2010 n=100</b>	<b>2011 n=75</b>	<b>2012 n=100</b>
Ever used (%)	100	100	100	100	100	100	100	100	<b>99</b>
Median age first used (range)	14 (7-18)	14 (8-18)	15 (4-19)	14 (8-18)	14 (7-17)	14 (6-20)	14 (10-17)	14 (1-18)	<b>14 (8-18)</b>
Used last 6 months (%)	98	98	95	99	100	99	100	100	<b>98</b>
Median days used (range)	48 (6-180)	49 (2-180)	48 (2-180)	48 (1-180)	72 (12-180)	55 (4-180)	48 (2-180)	60 (3-180)	<b>80 (13-180)</b>

Source: EDRS interviews

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 7.5).

### 4.7.2 Tobacco

A large proportion (95%) of the REU sample in 2012 had smoked tobacco at some stage in their lives (Table 13). The median age that tobacco was first used was 14 years (range 5-26 years) and there was no significant difference between the age of first use for males (15 years) and females (14 years).

A large majority (80%) of the sample had smoked tobacco during the six months preceding the interview. There was no significant difference in the proportion of males (82%) and females (78%) reporting recent use of tobacco or in the proportion of 'older' (77%) and 'younger' (82%) participants (based on a median split for age).

Three-fifths (61%, 95%CI 51-70%) of those who had recently smoked (49% of the entire sample) reported smoking tobacco on a daily basis during the six months preceding the



interview, which is 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). There was no significant difference in the proportion of female (69%) and male (56%) tobacco users who reported recent daily use. One-fifth (18%) of those that had recently smoked tobacco had done so once a week or less during the six months preceding the interview, compared to one-third (33%) in 2011.

In the 2010 National Drug Strategy Household Survey (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 2012, almost one-half (49%) of the Tasmanian REU 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, 2004-2012**

<b>Tobacco</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	89	89	94	90	96	92	96	97	<b>95</b>
Median age first used (range)	14 (7-22)	15 (8-20)	15 (7-23)	15 (7-21)	15 (6-22)	15 (9-25)	15 (7-22)	15 (7-23)	<b>14 (5-26)</b>
Used last 6 mths (%)	77	83	81	74	86	77	80	83	<b>80</b>
Used daily last 6 mths (%)	40	51	51	36	32	32	22	31	<b>49</b>
<b>Of those used last 6 mths (%)</b>	<b>n=77</b>	<b>n=83</b>	<b>n=81</b>	<b>n=74</b>	<b>n=86</b>	<b>n=76</b>	<b>n=80</b>	<b>n=62</b>	<b>n=80</b>
Used daily	57	61	63	49	37	42	28	38	<b>61</b>
Used weekly or less	25	18	19	14	33	40	45	33	<b>18</b>

Source: EDRS interviews

#### 4.7.3 Ketamine

One-quarter (25%) of the 2012 REU sample had used ketamine at some stage of their life (Table 14). The median age of first use was 20 years (range 15-32 years). Less than one-tenth (4%) of the REU sample had used ketamine in the six months preceding the interview in 2011, which is consistent with the low level of use among the cohort since 2004 (see Table 14). The median frequency of ketamine use was 2 days (range 1-3 days) in the six months preceding the interview and it was typically snorted or swallowed during this time.

In the 2010 National Drug Strategy Household Survey (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.

Those local KE who commented on ketamine (n=4) also indicated that the use and availability of the drug was currently low.

**Table 14: Patterns of ketamine use among REU, 2004-2012**

<b>Ketamine</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	18	24	23	23	26	21	19	32	<b>25</b>
Median age first used (range)	21 18-24	22 16-28	22 19-30	20 18-30	21 18-26	21 15-35	20 17-24	21 16-29	<b>20 15-32</b>
Used last 6 mths (%)	5	11	6	14	6	5	6	8	<b>4</b>
<b>Of those used last 6 mths</b>									
Median days used (range)	2* 1-5*	3 1-5	2* 1-3	1 1-30	1* 1-5	2* 1-2	1* 1-5	2.5* 2-30	<b>2* (1-3)</b>
Route (%).									
Snorted	60	45	50	50	50	60	33	100	<b>75</b>
Swallowed	80	91	50	57	50	40	67	-	<b>25</b>
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	<b>0.5* n=1</b>
Median points used biggest session (range)	-	-	-	1.75* 1.5-2	2* 2-2*	1.5* 1-2	3* 1-5	3* 2-4	<b>1* n=1</b>

Source: EDRS interviews

\* n<10

#### 4.7.4 GHB/GBL/1,4B

GHB (gamma-hydroxybutyrate) 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 ten confirmed GHB-related deaths during this period, two of which were also associated with use of alcohol.

Several substances such as GBL (gamma-butyrolactone) and 1,4B (1,4 butanediol) are metabolised to GHB following ingestion and may be used as substitutes for GHB (Australian Crime Commission, 2003). There were no reports of use of 1,4B or GBL among the 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. Ten participants in the 2011 sample had used GHB/GBL/1,4B at some stage of their lives (Table 15). The median age of first use of GHB was 19.5 years (range 16-24 years). Two participants reported single occasions 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%-6%). Estimates of use should be interpreted with caution due to small sample sizes.

In the 2010 National Drug Strategy Household Survey, none of the Tasmanians sampled had used GHB in the year prior to interview, compared with 0.1% of Australians nationally (Australian Institute of Health and Welfare, 2011).

**Table 15: Patterns of GHB/GBL/1,4B use among REU, 2004-2012**

<b>GHB</b>	2004 n=100	2005 n=100	2006 n=100	2007 <sup>#</sup> n=100	2008 <sup>#</sup> n=100	2009 <sup>#</sup> n=100	2010 <sup>#</sup> n=100	2011 <sup>#</sup> n=75	<b>2012 n=100</b>
Ever used (%)	7	7	9	4	7	11	9	5	<b>10</b>
Median age first used (range)	20* (17-32)	21* (18-30)	23* (21-31)	24* (20-31)	22* (18-30)	22 (17-35)	22* (18-28)	25.5* (23-28)	<b>19.5 (16-24)</b>
Used last 6 months (%)	3	2	3	1	1	3	2	3	<b>2</b>
Median days used last 6 months (range)*	1 (1-3)	2 (2-2)	2 (1-3)	6 (n=1)	1 (n=1)	1 (1-2)	1 (1-1)	1.5 (1-2)	<b>1 (1-1)</b>
Route (%).*									
Swallowed	100	100	100	100	100	100	100	100	<b>100</b>
Median quantity (ml)*	n=1	n=1		n=1		n=3		n=2	<b>n=1</b>
Typical session (range)	300	25	-	9	-	10 (1-50)	-	16 (2-30)	<b>60</b>
Biggest session (range)*	300	50	-	36	-	10 (1-50)	-	16 (2-30)	<b>120</b>

**Source: EDRS interviews**

<sup>#</sup> Includes GBL and 1,4B

\* n<10

#### 4.7.5 MDA

Just over one-tenth (13%, 95%CI 8-21%) of the 2012 sample had ever used MDA (Table 16) which is significantly lower than the proportion in 2011 (32%, 95%CI 23-43%) but comparable to the six years prior to this (8%-15%). The median age of first use was 20 years (range 16-29 years).

Four participants (4%) reported consuming MDA during the six months preceding the interview (Table 16), which is significantly fewer relative to 2011 (21%, 95%CI 14-32) but comparable to the six years prior to this (3-8%).

MDA was typically swallowed (75%) or snorted (50%) on a median of nine days (range 4-30 days) in the preceding six months, with a median of 1 capsule (range 1-2 capsules) consumed in a typical session, and two capsules (range 2-3 capsules) consumed in the biggest session of use.

**Table 16: Patterns of MDA use among REU, 2004-2012**

<b>MDA</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	20	8	14	8	15	10	14	32	<b>13</b>
Median age first used (range)	20 (16- 21)	23 (17- 28)	22 (15- 30)	20 (18- 27)	21 (18- 26)	21 (14- 35)	19 (15- 25)	19 (17- 28)	<b>20 (16- 29)</b>
Used in last 6 mths (%)	15	3	3	5	3	8	5	21	<b>4</b>
Median days used last 6 mths (range)	2 (1-4)	2* (1-2)	1* (1-1)	4* (1-12)	1* (1-3)	2* (1-24)	2* (1-3)	2 (1-12)	<b>9* (4-30)</b>
Route (%)									
Smoked	-	-	-	-	-	13	-	6	-
Snorted	20	-	33	-	-	25	60	63	<b>50</b>
Swallowed	100	100	67	100	100	88	40	75	<b>75</b>
Injected	-	-	-	-	-	13	-	-	<b>25</b>
Median caps. used typical session (range)	1 (1-5)	1* (1-1)	1* (1-1)	2* (1-3)	2* (1-4)	2* (.75-4)	1* (0.4-2)	1.5 (.5-5)	<b>1* (1-2)</b>
Median caps. used biggest session (range)	1.5 (1-8)	1.5* (1-2)	1* (1-1)	2* (1-5)	2* (1-8)	2* (.75-7)	1* (0.4-2)	3 (1-9)	<b>2* (2-3)</b>

Source: EDRS interviews

\* n<10

#### 4.7.6 Psychedelic mushrooms

Over four-fifths (81%) of the 2012 REU sample had ever used psychedelic mushrooms (Table 17). The median age of first use for mushrooms was 17 years (range 13-26 years).

One-quarter (26%) of the 2012 sample had used mushrooms in the preceding six months (Table 17) compared to a similar proportion in 2011 (23%). There was no significant difference in the proportion of males (33%) and females (18%) ( $p=.09$ ), or the proportion of younger (25%) and older (27%) participants reporting recent use (based on a median split for age).

All of those that had recently used mushrooms (100%) had ingested them, although shelving/shafting was also reported (1%). The median frequency of mushroom use was 2.5 days (range 1-24 days) in the preceding six months, or approximately once every two months.

**Table 17: Patterns of psychedelic mushroom use of REU, 2004-2012**

<b>Psychedelic mushrooms</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	60	63	74	66	61	56	58	64	<b>81</b>
Median age of first use (range)	20 (14-25)	20 (14-28)	20 (11-29)	19 (15-26)	20 (14-43)	19 (12-31)	19 (14-30)	18.5 (14-25)	<b>17 (13-26)</b>
Used in last 6 mths (%)	41	40	55	39	31	21	18	23	<b>26</b>
Used LSD & mushrooms (%)	17	16	21	13	19	14	7	20	<b>15</b>
Used LSD or mushrooms (%)	56	55	63	46	53	41	38	45	<b>41</b>
Median days use last 6 mths (range)	3 (1-48)	3 (1-12)	3 (1-19)	3 (1-20)	2 (1-12)	2 (1-30)	2 (1-6)	3 (1-24)	<b>2.5 (1-24)</b>

Source: EDRS interviews

#### 4.7.7 Inhalants

##### *Amyl nitrate*

One-half (53%) of the 2012 REU sample had ever used amyl nitrite (Table 18). The median age of first use was 20 years (range 13-35 years).

One-quarter of the 2012 sample (24%, 95%CI 17-33%) reported recent use of amyl nitrite compared to a similar proportion in 2011 (29%, 95%CI 20-40). There was no significant difference in the proportion of males (27%) relative to females (20%) or 'younger' (27%) relative to 'older' (21%) participants who had recently used amyl nitrite.

The median frequency of use was two days (range 1-14) during the six months preceding the interview or approximately once every three months.

**Table 18: Patterns of amyl nitrite use of REU, 2004-2012**

<b>Amyl nitrite</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	52	49	41	43	38	67	76	76	<b>53</b>
Median age first used (range)	20 (14-31)	19 (14-25)	20 (14-55)	20 (15-37)	20 (12-24)	21 (14-26)	20 (16-28)	20 (15-26)	<b>20 (13-35)</b>
Used last 6 mths (%)	23	16	10	20	15	51	51	29	<b>24</b>
Median days used last 6 mths (range)	5 (1-120)	3.5 (1-20)	3 (1-10)	1.5 (1-10)	2 (1-96)	5 (1-72)	6 (1-48)	4 (1-20)	<b>2 (1-14)</b>

Source: EDRS interviews

### Nitrous oxide

Four-fifths of the 2012 sample (80%, 95%CI 71-87%) had ever used nitrous oxide, compared to 59% (95%CI 47-69%) in 2011 (Table 19). The median age of first use was 19 years (range 12-28 years).

One-quarter (27%, 95%CI 19-36%) of the 2012 sample had used nitrous oxide during the six months preceding the interview, which is similar to the proportion found between 2008 and 2011 (29-36%). There was no significant difference in the proportion of males (41%) and females (27%) reporting recent use, or the proportion of younger (43%) relative to older (27%) participants.

The median frequency of use during the last six months was 4 days (range 1-50 days), or less than once per month. The median number of bulbs used in a typical session was 8 (range 2-90 bulbs) and the median number used in a heavy session of use was 15 (range 2-90 bulbs).

**Table 19: Patterns of nitrous oxide use of REU, 2004-2012**

<b>Nitrous oxide</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	57	69	69	64	62	54	57	59	<b>80</b>
Median age first used (range)	19 (12-28)	18 (15-29)	19 (11-30)	19 (15-32)	19 (15-28)	19 (12-32)	19 (14-26)	19 (12-28)	<b>17 (13-27)</b>
Used last 6 mths (%)	34	41	39	46	29	32	32	36	<b>27</b>
Median days use last 6 mths (range)	3 (1-24)	5 (1-24)	5 (1-30)	5 (1-50)	4 (1-60)	5 (1-40)	4 (1-48)	5 (1-24)	<b>4 (1-50)</b>
Bulbs used typical session (range)	4 (1-50)	7 (1-40)	5 (1-40)	9 (1-60)	10 (1-50)	10 (1-25)	6 (1-20)	5.5 (1-20)	<b>8 (2-90)</b>
Bulbs used biggest session (range)	6 (1-20)	9 (1-60)	10 (1-140)	15 (1-180)	20 (1-100)	17 (1-80)	10 (2-55)	10 (1-40)	<b>15 (2-90)</b>

Source: EDRS interviews

### 4.7.8 Benzodiazepines

Two-fifths (45%, 95%CI 36-55%) of the 2012 sample had used benzodiazepines at some stage of their life (Table 20). The median age of first use was 19 years (range 13-34 years).

Almost one-third (31%, 95%CI 23-41%) of the sample had used benzodiazepines during the six months preceding the interview, compared to over two-fifths (45%, 95%CI 35-57%) in 2011 ( $p=.07$ ). The median frequency of recent benzodiazepine use was 5 days (range 1-180 days) during the six months. One-half (52%) of those who had recently used benzodiazepines had done so on six or less occasions in the last six months.

One-tenth (10%) of the sample reported recent licit (prescribed) use. Licit benzodiazepines had been used on a median frequency of 28 days (range 3-180 days) during the six months preceding the interview.

One-quarter (25%, 95%CI 18-34%) of the 2012 sample reported recent illicit (non-prescribed) use of benzodiazepines, which is not statistically different to the proportion in 2011 (36%, 95%CI 26-47%). Illicit benzodiazepines had been swallowed (100%) or snorted (8%) on a median 5 days (range 1-90 days) during this time.

Of the Tasmanians surveyed in the 2010 National Drug Strategy Household Survey (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 2012 REU sample reporting recent use (during the last six months) of illicit benzodiazepines (25%) 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, 2004-2012**

<b>Benzodiazepines</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	34	40	48	41	51	36	44	61	<b>45</b>
Ever injected (%)	2	3	4	2	1	4	2	3	<b>2</b>
Median age first used (range)	20 (8-24)	19 (10-28)	21 (14-35)	20 (13-34)	21 (13-29)	20 (14-28)	20 (14-27)	20 (12-35)	<b>19 (13-34)</b>
Used last 6 mths (%)	23	25	33	25	37	24	27	45	<b>31</b>
Injected last 6 mths (%)	1	-	-	1	-	1	-	-	<b>-</b>
Median days use last 6 mths (range)	6 (1-96)	3 (1-50)	5 (1-180)	4 (1-30)	4 (1-180)	4 (1-60)	4 (1-80)	7 (1-180)	<b>5 (1-180)</b>
Licit use last 6 mths (%)	n/a	n/a	n/a	9	10	6	6	12	<b>10</b>
Illicit use last 6 mths (%)	n/a	n/a	n/a	20	31	19	23	36	<b>25</b>

Source: EDRS interviews

#### 4.7.9 Antidepressants

Almost one-fifth (16%) of the 2012 sample had used antidepressants at some stage of their life (Table 21). The median age of first use was 18.5 years (range 14-30 years).

Only four participants (4%) had used antidepressants in the six months preceding the interview, with 4% reporting recent licit use and 1% reporting recent illicit use.

Licit antidepressants had been used orally on a median frequency of 180 days (range 48-180 days) during the six months preceding the interview.

Illicit antidepressants had been used orally on 24 days by a single participant.



**Table 21: Patterns of antidepressant use of REU, 2004-2012**

<b>Anti-depressants</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	14	21	20	24	22	16	16	23	<b>16</b>
Median age first used (range)	20 (17-23)	18 (16-27)	20 (14-35)	20 (14-35)	18 (10-27)	21 (14-42)	18 (12-26)	17 (14-27)	<b>18.5 (14-30)</b>
Used last 6 mths (%)	4	12	9	11	6	10	5	8	<b>4</b>
Median days used (range)	6 (1-180)	180 (1-180)	34 (3-180)	180 (1-180)	135 (30-180)	105 (2-180)	15 (1-180)	135 (3-180)	<b>180 (72-180)</b>
Licit use last 6 mths (%)	n/a	n/a	n/a	6	5	9	3	7	<b>4</b>
Illicit use last 6 mths (%)	n/a	n/a	n/a	5	1	1	2	1	<b>1</b>

**Source: EDRS interviews**

#### **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, it is likely that the majority of this use was illicit, given the low median frequency of use (pharmaceutical stimulants are typically prescribed for daily administration long-term). In 2012, no participants reported past use of licit pharmaceutical stimulants.

Almost one-half (46%) of the 2012 sample had ever used illicit pharmaceutical stimulants (Table 22). The median age of first use was 20 years (range 12-45 years). One-fifth (20%, 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 2011 (9-19%). There was no significant difference in the proportion of males (24%) relative to females (16%) or younger (20%) and older (21%) participants who had recently used illicit pharmaceutical stimulants.

Almost all of those who had recently used pharmaceutical stimulants had taken the drug orally (98%), and smaller proportions had recently snorted (52%), smoked (17%) or injected (7%) these drugs in the preceding six months. The median frequency of use was 3 days (range 1-20 days) in the six months preceding the interview. The median number of tablets used in a typical session was 2 (range 1-7.5 tablets) and the median number used in a heavy session of use was 3 (range 1-25 tablets).



**Table 22: Patterns of illicit pharmaceutical stimulant use of REU, 2005-2012**

<b>Pharmaceutical stimulants</b>	2005 n=100	2006 n=100	2007* n=100	2008* n=100	2009* n=100	2010* n=100	2011* n=75	<b>2012* n=100</b>
Ever used (%)	44	50	40	41	30	21	39	<b>46</b>
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)	<b>20 (12-45)</b>
Used last 6 mths (%)	16	12	19	16	10	9	15	<b>20</b>
Median days used last 6 mths (range)	3.5 (1-30)	2 (1-60)	2 (1-90)	2 (1-10)	2 (1-15)	1 (1-58)	5 (3-20)	<b>3 (1-20)</b>
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)	<b>2 (1-7.5)</b>
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)	<b>3 (1-25)</b>

**Source: EDRS interviews**

\* Data includes only illicit use (data from previous years may include both illicit and licit use)

#### 4.7.11 Over-the-counter preparations

Over one-tenth (16%) 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 2011 (5-9%) (Table 23). The median frequency of this use was four days (range 1-40 days) in the last six months.

One-twentieth (4%) of the 2012 EDRS cohort 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 five days (range 3-20 days), or approximately monthly, during the last six months.

**Table 23: Use of over-the-counter preparations for non-medical purposes among REU, 2009-2012**

	<b>Codeine-based</b>				<b>Stimulant-based</b>			
	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	17	12	n/a	<b>21</b>	10	13	39	<b>12</b>
Median age of first use (range)	20 (14-32)	18 (16-25)	n/a	<b>20 (10-51)</b>	20 (17-26)	22 (15-35)	17 (13-30)	<b>22.5 (12-30)</b>
Used last 6 mths (%)	9	5	9	<b>16</b>	6	3	5	<b>4</b>
Injected last 6 mths (%)	-	-	-	-	-	-	-	-
Median days used (range)	2 (1-90)	n/a	4 (1-64)	<b>4 (1-40)</b>	5 (2-12)	3 (2-4)	5 (3-20)	<b>3.5 (1-22)</b>

**Source: EDRS interviews**

#### 4.7.12 Heroin and other opiates

##### *Heroin*

One-tenth (10%) of the 2012 REU sample had ever used heroin (Table 24). The median age of first heroin use was 20.5 years (range 14-23 years). A single participant (1%) had used heroin intravenously on 4 days during the six months preceding the interview. 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 Bruno, 2005, 2006; de Graaff & Bruno, 2007, 2008, 2009, 2010, 2011, 2012, 2013) and is also consistent with the anecdotal comments of KE (n=6) in 2012.

**Table 24: Patterns of heroin use of REU, 2004-2012**

<b>Heroin</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	4	8	10	5	6	6	8	17	<b>10</b>
Median age of first use (range)	20 (16-26)	22 (16-26)	18 (15-32)	19 (16-21)	20 (16-27)	20 (15-29)	19 (14-25)	21 (16-23)	<b>20.5 (14-23)</b>
Used in last 6 mths (%)	-	-	2	-	1	3	2	8	<b>1</b>
Injected last 6 mths (%)	-	-	2	-	-	-	2	8	<b>1</b>
Median days last 6 mths (range)	-	-	7 (3-10)	-	1 (n=1)	1 (1-48)	9 (2-15)	13 (2-31)	<b>4 n=1</b>

Source: EDRS interviews

##### *Methadone*

Less than one-tenth (9%) of the 2012 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 23 years (range 18-30 years). Four participants (4%) had used methadone orally during the six months preceding the interview. The median frequency of use was 14.5 days (range 3-48 days) in the last six months.

**Table 25: Patterns of methadone use of REU, 2004-2012**

<b>Methadone</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	2	5	9	6	3	8	10	8	<b>9</b>
Median age of first use (range)	18 (17-19)	20 (16-22)	21 (16-34)	22 (14-30)	20 (19-22)	21 (14-25)	21 (17-25)	22 (18-25)	<b>23 (18-30)</b>
Used in last 6 mths (%)	2	1	5	1	2	4	5	4	<b>4</b>
Injected last 6 months (%)	2	1	3	-	1	-	-	3	<b>-</b>
Median days use last 6 mths (range)	90 (2-180)	180 n=1	20 (1-180)	1 n=1	90 (1-180)	24 (2-180)	4 (2-24)	180 (6-180)	<b>14.5 (3-48)</b>

Source: EDRS interviews

### Buprenorphine

Consistent with the low levels of buprenorphine use among the REU cohorts in previous years, four participants had ever used buprenorphine among the 2012 sample (Table 26), and only two participants had taken buprenorphine orally on a median of 92 days (range 24-160 days) during the last six months.

**Table 26: Patterns of buprenorphine use of REU, 2004-2012**

<b>Buprenorphine</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	-	2	3	1	2	2	5	8	<b>4</b>
Median age of first use (range)	-	21 (20-22)	32 (22-35)	22	28 (22-33)	24 (20-28)	20 (19-25)	28.5 (23-33)	<b>37 (23-46)</b>
Used last 6 mths (%)	-	1	1	1	1	1	1	3	<b>2</b>
Injected last 6 mths (%)	-	-	-	1	-	-	-	1	-
Median days used last 6 mths (range)	-	6 n=1	180 n=1	1 n=1	15 n=1	90 n=1	14 n=1	9.5 (4-15)	<b>92 (24-160)</b>

Source: EDRS interviews

### 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'. Almost one-fifth (16%) of the 2012 REU sample had ever used 'other opioids' for not-as-prescribed (or non-licit) purposes (Table 27). The median age of first use was 21.5 years (range 14-31 years).

Just four participants (4%, 95%CI 2-10%) of the sample had recently used 'other opioids' for non-medical purposes, which is fewer relative to 2011 (16%, 95%CI 9-26%). The median frequency of 'other opioid' use was 4 days (range 1-5 days) during the six months preceding the interview. For those who had recently used 'other opioids', the most common routes of administration were injecting (75%) and swallowing (50%).

**Table 27: Patterns of illicit 'other opioid' use among REU, 2004-2012**

<b>Other opioids</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever used (%)	19	25	33	23	29	19	19	29	<b>16</b>
Median age of first use (range)	19 (16-27)	18 (16-27)	20 (14-29)	19 (13-25)	20 (15-27)	19 (13-27)	18 (14-27)	19.5 (16-25)	<b>21.5 (14-31)</b>
Used last 6 mths (%)	8	13	14	8	17	6	4	16	<b>4</b>
Injected last 6 mths (%)	-	-	4	1	3	1	-	9	<b>75</b>
Median days used (range)	11 (3-48)	8 (1-48)	3 (1-121)	8 (1-72)	4 (1-96)	3 (1-24)	4 (1-12)	6 (1-40)	<b>4 (1-5)</b>

Source: EDRS interviews

## 4.8 Emerging psychoactive substance (EPS) use

### 4.8.1 Mephedrone

Mephedrone (4-methylmethcathinone) is a synthetic stimulant (common names: 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, 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, 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, 2010). There are also several less popular synthetic cathinones available such as methylone, and butylone (James et al., 2010; Winstock, 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 one-quarter (29%) of the 2012 REU sample reported lifetime use of mephedrone. One-tenth (10%, 95%CI 6-17%) reported use of mephedrone in the last six months (Table 28), which is a significant reduction compared to both 2011 (27%, 95%CI 18-38%) and 2010 when almost one-half of the sample reported recent use (47%, 95%CI 38-57%). Mephedrone was typically snorted or swallowed and was used on a median frequency of 2.5 days in the last six months (range 1-12) or approximately once every three months. Of those who commented on the last source of mephedrone (n=10), a majority had last obtained mephedrone from a friend (80%), dealer (10%), or acquaintance (10%) with none reporting that they had obtained the drug from the internet.

Several KE (n=11) noted some use of mephedrone among the drug consumers that they were familiar with, with others (n=7) commenting that they were not aware of any use of the drug or that there was less use of mephedrone relative to previous years. Several KE working in NSP or treatment settings (n=4) indicated that they had noticed an increase in IV use of mephedrone among the consumers that they came into contact with. Some of these KE indicated that some people were presenting to treatments services with acute psychosis (n=1) or a clinical presentation similar to methamphetamine use (n=1), and two KE noted that the effects of mephedrone could be likened to the effects of methamphetamine. Another KE noted that IV use of a substance believed to be mephedrone had been associated with side effects such as temporary loss of vision.

**Table 28: Patterns of mephedrone use of REU, 2008-2012**

	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100
Ever used (%)	1	15	65	37	29
Used last 6 months (%)	1	15	47	27	10
Route of administration	n/a	n/a			
Swallow (%)			62	68	70
Snort (%)			66	74	60
Smoke (%)			2	-	-
Inject (%)			-	5	-
Median days used (range)	30 (n=1)	2 (1-90)	6 (1-36)	3 (1-30)	2.5 (1-12)
Median price per capsule (range)	n/a	n/a	\$30 (20-40)	n/a	

Source: EDRS interviews

#### 4.8.2 Other EPS

Table 29 shows the proportion of the EDRS cohorts reporting recent use of other 'emerging 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 of using these drugs. In many countries, these chemicals are not controlled substances and can often be purchased through chemical supply companies for 'research' purposes. Also included as EPS 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 EPS substances used among the 2012 cohort were mephedrone (10%) (see also Section 4.8.1) and related substances such as methylone (also known as bk-MDMA) (2%) and 'other cathinones' (1%). Small proportions of the sample reported recent use of psychedelics such as DMT (6%), 2CI (2%), mescaline (2%), 5-MeO-DMT (1%), and 2CE (1%), and 4% reported recent use of DXM (a substance commonly found in over-the-counter cough medicine). Consistent with the low use of substances such as 2CI/2CB/2CE among REU, several KE (n=4) noted that there was limited or no use of these substances among the consumers that they were familiar with.

Just 5% of the 2012 sample reported recent use of synthetic cannabinoids. Synthetic cannabinoids had been used on a median of 2.5 days (range 1-30) and had been obtained from a friend (50%), a shop (25%) or as a gift (25%). Consistent with this, few KE commented on synthetic cannabinoids (n=5) and those who did (n=4) reported limited use.

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 16% of the sample. These had typically been swallowed or snorted on a median of 5.5 days (range 1-48 days) in the last six months. Those who commented indicated that the capsules had been sourced through friends (81%), dealers (13%), or had been given as a gift (6%). Several KE (n=2) also commented that the use of capsules of unknown contents was common among the REU that they were familiar with.

Recent use of 'herbal highs' was reported by around one-tenth (8%) of the sample on a median frequency of 2 days (1-6 days) in the last six months. Herbal highs had been swallowed (88%), smoked (13%) or snorted (13%) during this time. Those who commented

indicated that 'herbal highs' had been sourced through a shop (63%) or through friends (38%). Few participants specified which herbal highs they had consumed in the last six months; however, 'super g bomb', 'empathy', guarana, and 'herbal ecstasy' were mentioned by single participants.

**Table 29: Use of emerging psychoactive substances (EPS) in last six months among REU, 2004-2012**

% used in last 6mths	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100
<b>Stimulants</b>									
Mephedrone	-	-	-	-	1	14	47	27	10
Methylone	-	-	-	-	-	1	4	4	2
Other cathinone <sup>^</sup>	-	-	-	-	1	-	1	-	1
MDAI	-	-	-	-	-	-	-	-	1
BZP	-	-	1	2	-	-	2	-	-
MDPV	-	-	-	-	-	1	2	1	1
<b>Psychedelic phenethylamines</b>									
2CB	1	1	-	2	2	1	2	-	-
2CI	5	1	23	12	2	9	4	4	2
2CE	-	-	-	1	1	3	7	1	1
2C-T-7	1	-	-	-	-	-	1	-	-
DOI	-	-	-	-	-	-	3	-	-
Mescaline <sup>#</sup>	1	-	-	-	1	-	1	1	2
<b>Psychedelic tryptamines</b>									
DMT <sup>#</sup>	-	-	1	1	3	-	7	4	6
5-MeO-DMT <sup>#</sup>	-	-	-	-	1	-	-	3	1
PMA	-	-	-	-	-	-	1	-	-
<b>Plant derivatives</b>									
Datura	-	-	-	-	-	1	1	-	-
Salvia divinorum	-	1	-	-	1	1	1	-	1
LSA (woodrose seeds)	-	-	-	1	2	-	-	3	1
<b>Inhalants</b>									
Butane	-	-	-	-	1	-	-	-	-
<b>Synthetic cannabinoids</b>									
	-	-	-	-	-	-	-	1	4
<b>Other</b>									
DXM <sup>*</sup>	2	-	-	-	2	-	-	3	4
Ephedrine	-	-	-	-	-	1	-	-	-
5-HTP	-	1	-	-	-	-	-	-	-
PCP	1	-	-	-	-	-	-	-	-
Melanotan	-	-	-	-	-	-	-	1	-
Capsule (contents unknown)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15	16
Herbal highs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11	8

**Source: EDRS interviews**

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

# Can also be derived from plants

<sup>^</sup> 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 \$18-40) or one capsule (range \$5-40). No recent price changes were noted and three-quarters (74%) of the sample indicated that price had recently remained stable.
- Ecstasy was reported to be medium (47%) or low (20%) in purity, 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.
- The proportion reporting that ecstasy was 'easy' or 'very easy' to obtain was significantly higher in 2012 (86%) relative to the decreased availability reported in 2010 (63%) and 2011 (70%). Recent availability was reported to have remained stable (73%) or to have become 'easier' (14%) in the past six months.
- Ecstasy was typically last purchased from friends and last obtained from a friend's home, the respondent's own home, a private party or a public bar.
- Over one-half (57%) indicated they typically purchased ecstasy both for themselves and others, with a median of three tablets (range 1-160 tablets) purchased per occasion.

#### 5.1.1 Price

The median last purchase price for one ecstasy tablet was \$30 (range \$18-50) in 2012 compared to \$30 (\$15-40) in 2011 and \$35 (range \$24-35) in 2010 (Table 30). Consistent with the past three years, the median last purchase price for one capsule of ecstasy was also \$30 (range \$5-40). Three-quarters (74%) 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 \$40 (n=6) with prices having remained stable in the preceding six months (n=6).

**Table 30: Price of ecstasy purchased by REU and price variations, 2004-2012**

<b>Median price (range)</b>	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
<b>Pill/Tablet</b>									
Last purchase price	\$40 (30-50) n=100	\$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	<b>\$30 (18-50) n=86</b>
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	<b>\$300 (150-400) n=54</b>
<b>Powder</b>									
Last price per gram (range)	-	-	-	\$350* n=1	-	\$250* (100-300) n=3	\$200* (120-250) n=8	\$300* n=1	<b>\$350 n=1</b>
<b>Capsule</b>									
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	<b>\$30 (5-40) n=67</b>
<b>Price change</b>									
% Don't know	2	-	-	2	-	8	9	5	<b>7</b>
% Increased	6	7	5	18	14	10	38	14	<b>7</b>
% Stable	64	67	54	65	55	52	40	65	<b>74</b>
% Decreased	15	10	28	7	18	12	4	5	<b>8</b>
% Fluctuated	13	16	13	8	13	17	9	11	<b>4</b>

Source: EDRS interviews

\*n<10

The price of ecstasy reported by Tasmania Police to the Australian Crime Commission has varied substantially over the past decade (Table 31). A price range of \$30-50 was reported in 2010/11 which is consistent with the prices reported by REU in 2011 and 2012. At the time of publication, data were not available for the 2011/12 financial year.

**Table 31: Price per tablet of ecstasy reported by Tasmania Police 2000/01-2009/10**

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	<b>10/11</b>
Price per pill (\$)	50-60	50-70	30-70	30-70	40-50	25-40	40	30-45	35-40	35-50	<b>30-50</b>

Source: Australian Bureau of Criminal Intelligence (2002); Australian Crime Commission (2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012)



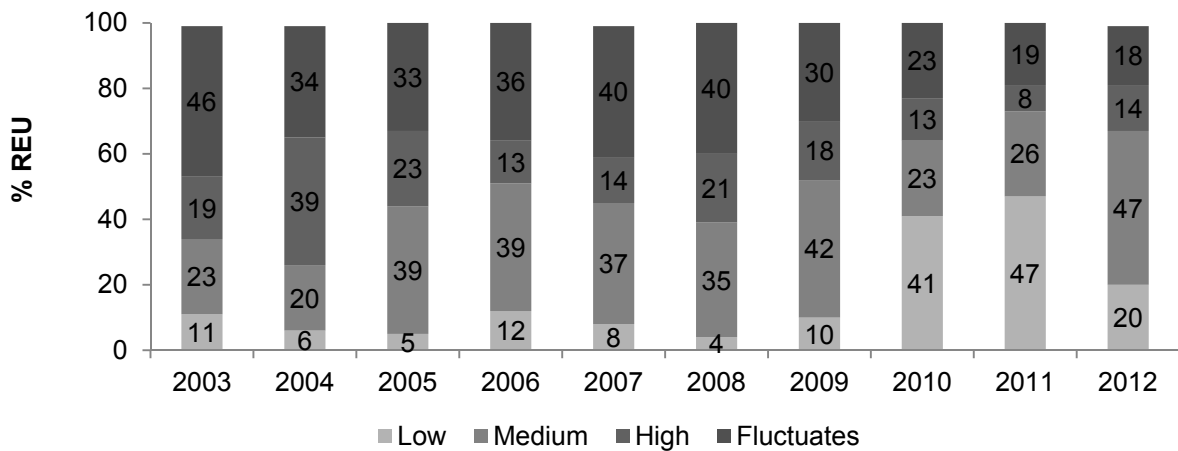
### 5.1.2 Purity

In 2010/11 decreased purity of ecstasy was noted with a significantly greater proportion of the REU sample reporting that ecstasy was currently low in purity (Figure 6). In 2012, there was a significant decrease in the proportion who reported that ecstasy was currently low in purity (20% vs. 47%, 95%CI 13-29%) and a significant increase in the proportion reporting that ecstasy was currently medium in purity (47% vs. 26%).

Ecstasy was reported to have either remained stable (43%), or fluctuated (32%) during the six months preceding the interview (Figure 7).

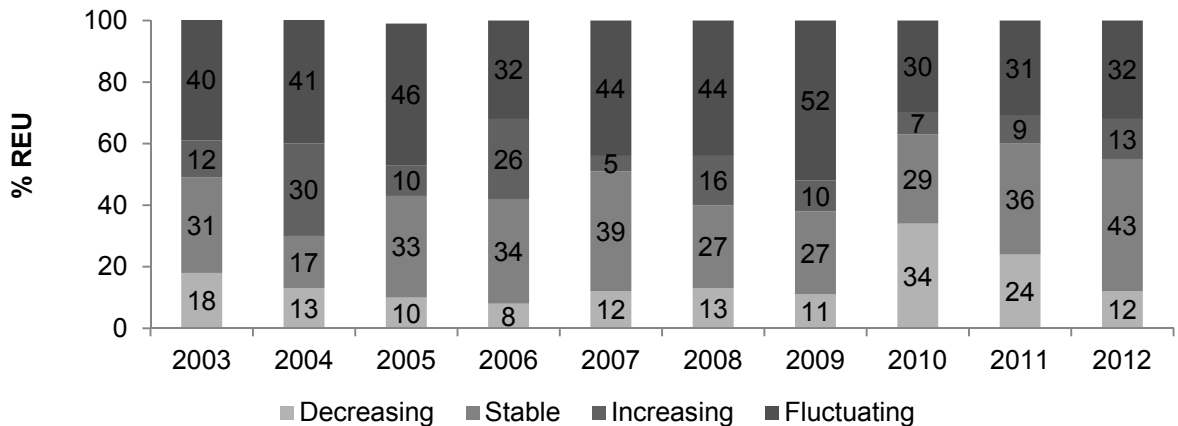
KE who commented on ecstasy indicated that the drug was currently low (n=2), medium (n=4), or fluctuating (n=4) in purity, and that it had fluctuated (n=7) or decreased (n=2) during the preceding six months.

**Figure 6: Reports of current ecstasy purity among REU who commented, 2003-2012**



Source: EDRS interviews

**Figure 7: Reports of change in ecstasy purity in the last six months among REU who commented, 2003-2012**



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 32). There were no purity data reported in 2010/11 and data for the 2011/12 reporting period were not available at the time of publication.

**Table 32: Median purity of phenethylamine seizures 2000/01-2010/11**

	2000 /01	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11
Median % Purity	3.4 n=1	22.9 n=1	28.5 n=3	26.0 n=33	-	-	27.1 n=4	24.6 n=3	-	34.2 n=1	-

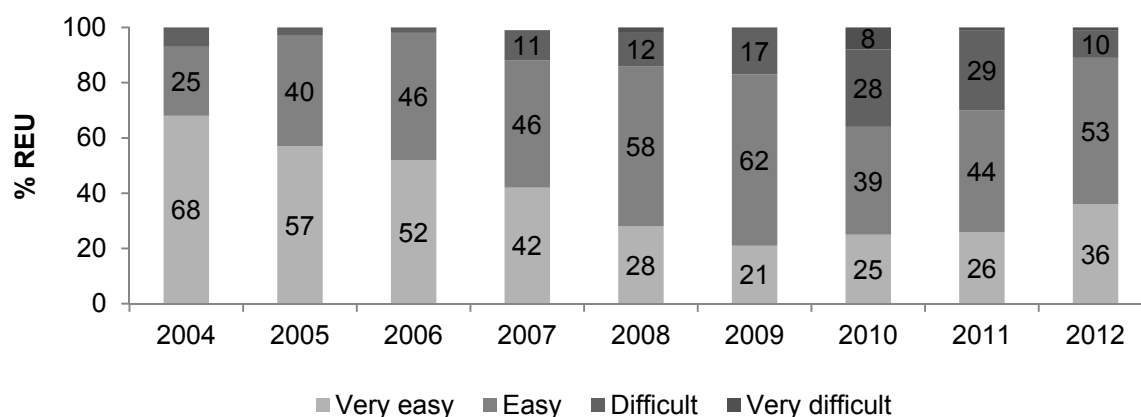
Source: Australian Bureau of Criminal Intelligence (2002); Australian Crime Commission (2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012)

### 5.1.3 Availability

The majority of REU interviewed in 2012 indicated that ecstasy was 'very easy' or 'easy' to obtain (86%, 95%CI 78-91%), a significant increase relative to 2011 (70%, 95%CI 59-79) and 2010 (63%, 95%CI 54-73) (Figure 8) where a marked decrease in availability was noted relative to 2009 (83%, 95%CI 74-89).

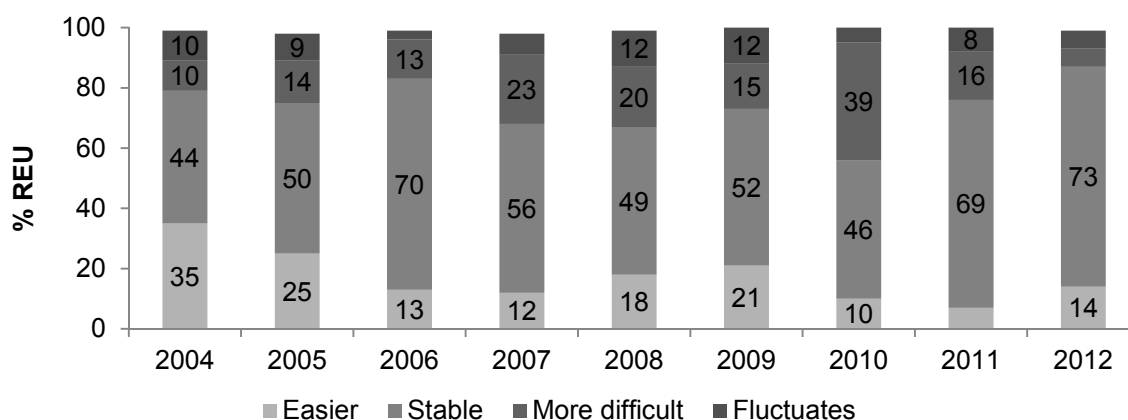
A majority of the 2012 sample reported that availability had remained stable (73%) or had become 'easier' (14%) to obtain in the past six months (See Figure 9).

**Figure 8: REU reports of current availability of ecstasy, 2004-2012**



Source: EDRS interviews

**Figure 9: REU reports of change in ecstasy availability in the last six months, 2004-2012**



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 33). A large majority indicated that they last obtained ecstasy from friends (65%), most typically from a friend's home (28%), the respondent's own home (20%), a private party (10%) or a public bar (11%).

**Table 33: REU reports of ecstasy last source and location in the preceding six months, 2009-2012**

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

Source: EDRS interviews

#### 5.1.4 Ecstasy markets and patterns of purchasing ecstasy

REU interviewed in 2012 reported purchasing ecstasy from a median of 3 people (range 1-30 people) in the preceding six months (Table 34). Over one-half of the sample (57%) indicated that they typically purchased ecstasy for themselves and others, and two-fifths (42%) typically purchased ecstasy only for themselves. Most commonly, ecstasy was purchased monthly or less frequently (43%) or fortnightly to monthly (29%) during this time, with a median of 3 tablets (range 1-160 tablets) purchased in a single transaction.

**Table 34: Patterns of purchasing ecstasy in the last six months, 2005-2012**

	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
<b>Median no. of people purchased from (range)</b>	4 (1-25)	4 (1-30)	3 (1-15)	4 (1-15)	3 (1-20)	3 (1-10)	3 (1-10)	<b>3 (1-30)</b>
<b>Purchased for (%)</b>								
Didn't purchase	-	2	-	3	-	1	3	<b>1</b>
Self only	34	44	35	31	36	36	34	<b>42</b>
Self and others	66	54	65	66	61	60	62	<b>57</b>
Others only	-	-	-	-	3	3	1	<b>-</b>
<b>No. times purchased (%)</b>								
1-6	38	43	44	34	49	54	62	<b>43</b>
7-12	36	42	36	45	38	36	27	<b>29</b>
13-24	25	10	18	15	9	9	10	<b>18</b>
25 +	-	4	2	5	4	1	1	<b>10</b>
<b>Median no. of pills usually purchased (range)</b>	3 (1-100)	3 (1-100)	3 (1-50)	5 (1-100)	5 (1-100)	3 (1-30)	3 (1-100)	<b>3 (1-160)</b>

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 higher than previous years (\$35-40). The median last purchase price for one gram of methamphetamine powder (\$300) was also higher than the prices reported between 2009 and 2011 (\$250-255).
- Methamphetamine powder was reported to be 'low' or 'medium' in purity, with a greater proportion indicating that it was low in purity in 2012 (40%) in comparison to previous years (3-23%).
- Methamphetamine powder was considered 'easy' or 'difficult' to obtain among those who commented, with a significant reduction observed in the proportion perceiving that it was 'easy' or 'very easy' to obtain in 2012 (53%) when compared to previous years (71-90%).
- Small sample sizes in relation to crystal and base and low levels of recent use among the current cohort both indicate low availability of these forms in 2012.

### 5.2.1 Price

REU were asked to indicate the last purchase price for the three major forms of methamphetamine (see Table 35). 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 20-100) which is higher than the median price of \$35 (range \$20-50) reported in 2011 and the median price of \$40 reported among previous samples.

The last purchase price for one gram of methamphetamine powder was \$300 (range \$100-350) compared with a median of \$250-255 reported between 2009 and 2011.

The majority (85%) 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.

Several KE commented that the price for 1 gram of methamphetamine powder was \$300 (n=2) and that the price for 0.1 of a gram was \$50 (n=2).

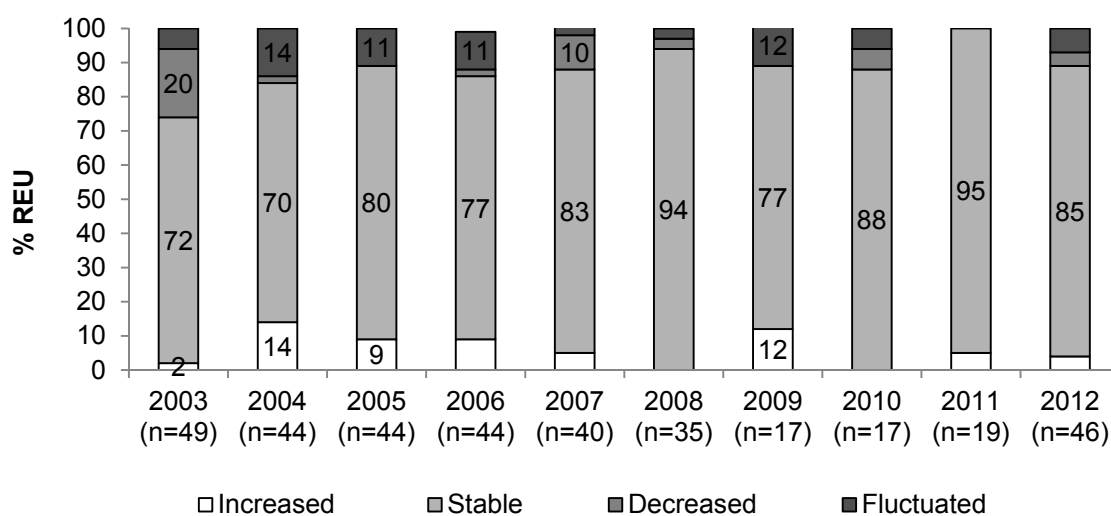
**Table 35: Last purchase price of methamphetamine forms purchased by REU, 2004-2012**

Median last price	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Powder</b>									
Point (range)	\$40 (20-50) n=41	\$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	<b>\$50</b> <b>(20-100)</b> <b>n=31</b>
Gram (range)	\$300 (50-400) n=11	\$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	<b>\$300</b> <b>(100-350)</b> <b>n=16</b>
<b>Base</b>									
Point (range)	\$50 (30-55) n=14	\$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	<b>\$50</b> <b>(20-100)</b> <b>n=10</b>
Gram (range)	\$300* (250-350) n=3	\$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	<b>\$300*</b> <b>(200-300)</b> <b>n=6</b>
<b>Crystal</b>									
Point (range)	\$50* (40-50) n=6	\$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	<b>\$60*</b> <b>(50-100)</b> <b>n=5</b>
Gram (range)	\$350* (350-350) n=2	\$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	<b>\$300*</b> <b>(80-300)</b> <b>n=3</b>

Source: EDRS interviews

\* n<10

**Figure 10: Recent changes in price of methamphetamine powder purchased among REU who commented, 2003-2012**



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 Australian Bureau of Criminal Intelligence (ABCI), now the Australian Crime Commission (ACC) (Table 36). During the 2010/11 financial year, Tasmania Police reported methamphetamine (non-crystal) prices as \$50-80 per 'point' (0.1 g) and \$300-400 per gram (Table 36). The price for crystal methamphetamine was reported to be \$50 for a point and \$400 for a gram. Data for the 2011/12 reporting period were unavailable at the time of publication.

**Table 36: Methamphetamine prices in Tasmania reported by Tasmania Police Drug Investigation Services, 2003/04-2010/11**

<b>Non-crystal form</b>	<b>Point (~0.1 g)</b>	<b>Full gram (1.0 g)</b>	<b>Ounce (28 g)</b>
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	-	-	-
<b>2010/11</b>	<b>\$50-80</b>	<b>\$300-400</b>	<b>\$4,000-5000</b>
<b>Crystal form</b>			
2006/07	-	-	-
2007/08	-	-	-
2008/09	\$50	\$300-	-
2009/10	-	-	-
<b>2010/11</b>	<b>\$50</b>	<b>\$400</b>	-

**Source: Australian Crime Commission (2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012)**

Note: Data for 2011/12 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

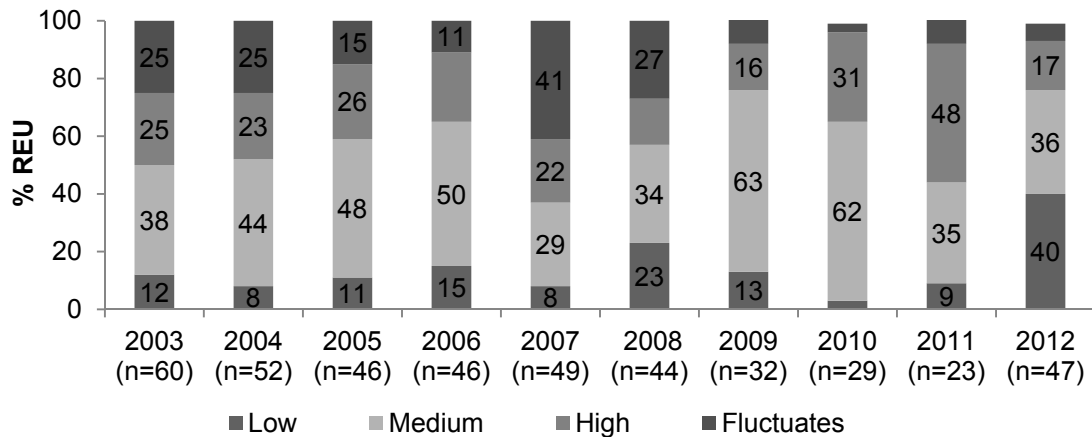
Due to the small number of REU who commented on methamphetamine base and crystal methamphetamine, trends in purity are examined over time for methamphetamine powder only.

The majority of REU who commented in 2012 indicated that methamphetamine powder was low (40%) or medium (36%) in purity (Figure 11). The proportion reporting that methamphetamine was low in purity was significantly greater in 2012 (40%, 95%CI 28-55%) relative to 2011 (9% 95%CI 2-27%),  $\chi^2=5.97$ ,  $p=.01$ .

While 50% of the sample reported the purity as stable in the last six months, 33% reported the purity as fluctuating (Figure 12).

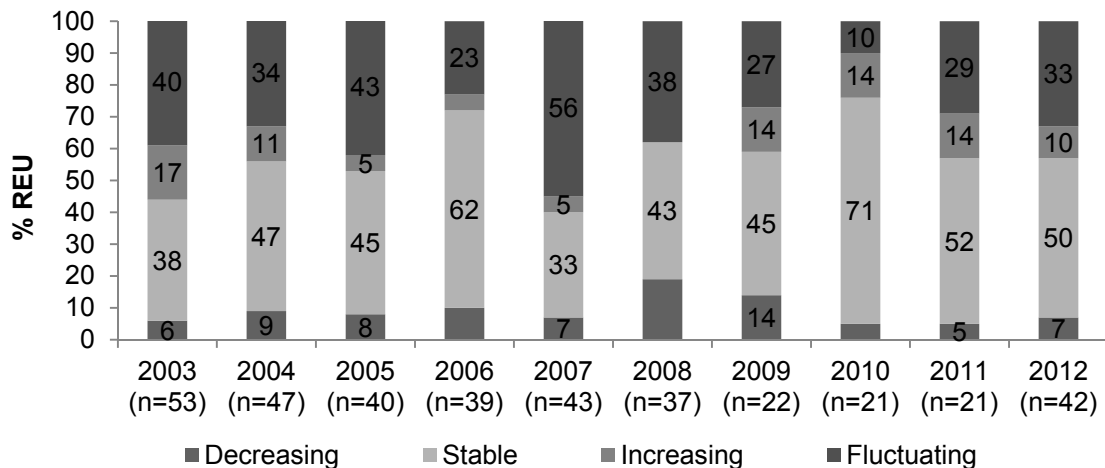
KE who commented on methamphetamine powder indicated that it was currently low (n=1), medium (n=5) or fluctuating (n=2) in purity.

**Figure 11: Reports of methamphetamine powder purity among REU who commented, 2003-2012**



Source: EDRS interviews

**Figure 12: Reports of changes in methamphetamine powder purity in the past six months among REU who commented, 2003-2012**



Source: EDRS interviews

Table 37 shows purity of methamphetamine seizures received at Tasmanian police analytical laboratories for the 2000/01 to 2010/11 financial years. Data for the 2011/12 reporting period were not available at the time of publication. All amphetamine-type stimulants tested for purity between 2003/04 and 2010/11 were methylamphetamine 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 2010/11 reporting period, the total median purity of analysed methamphetamine seizures was relatively low (9.3%), and consistent with the median purity of seizures analysed in the previous five reporting periods (8.5%-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 2010/11 (36.6%) relative to the two years prior to this (6.7-14.1%).



**Table 37: Purity of seizures of methamphetamine made by Tasmania Police received for laboratory testing, 2000/01-2010/11**

	2000 /01	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11
<b>≤2 g</b>											
n	10	20	30	9	10	6	15	7	11	-	<b>3</b>
Median % purity	10.4	26.6	12.7	25.6	32.3	15	24.6	7.6	12.6		<b>33.6</b>
<b>&gt; 2 g</b>											
n	14	28	13	14	-	3	23	32	9	5	<b>50</b>
Median % purity	3.6	19.2	11.2	9.8	-	6.9	6.5	8.5	7.8	4.4	<b>9.3</b>
<b>Total</b>											
n	24	48	43	23	10	9	38	39	20	5	<b>53</b>
Median % purity	6.4	22.2	12.2	16.9	32.3	13	12.4	8.5	9.2	4.4	<b>9.3</b>
Range	0.5-50	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	<b>1.8-36.6</b>

**Source: Australian Bureau of Criminal Intelligence (2002); Australian Crime Commission (2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012)**

Note: No seizures made by the Australian Federal Police in the state were analysed during these reporting periods. Data for the 2011/12 period were unavailable at time of publication

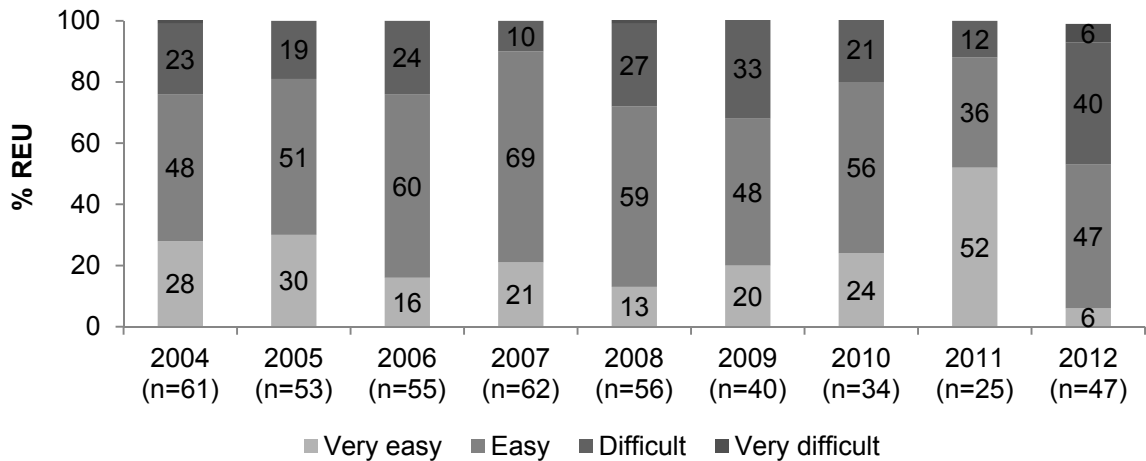
### 5.2.3 Availability

Few REU were able to comment on the availability and changes in availability for methamphetamine base and crystal methamphetamine and several KEs indicated that crystal (n=3) and base (n=1) had recently become more difficult to obtain. Thus availability over time is examined for methamphetamine powder only.

Methamphetamine powder was typically reported to be 'easy' (47%) or 'difficult' (40%) to obtain (Figure 13) and this availability had remained stable (72%) during the last six months (Figure 14). The proportion reporting that methamphetamine powder was 'difficult' to obtain was significantly greater in 2012 (40% 95%CI 28-55%) relative to 2011 (12% 95%CI 4-30%),  $\chi^2=4.95$ ,  $p=.03$ , and relative to most other previous years (10-27%).

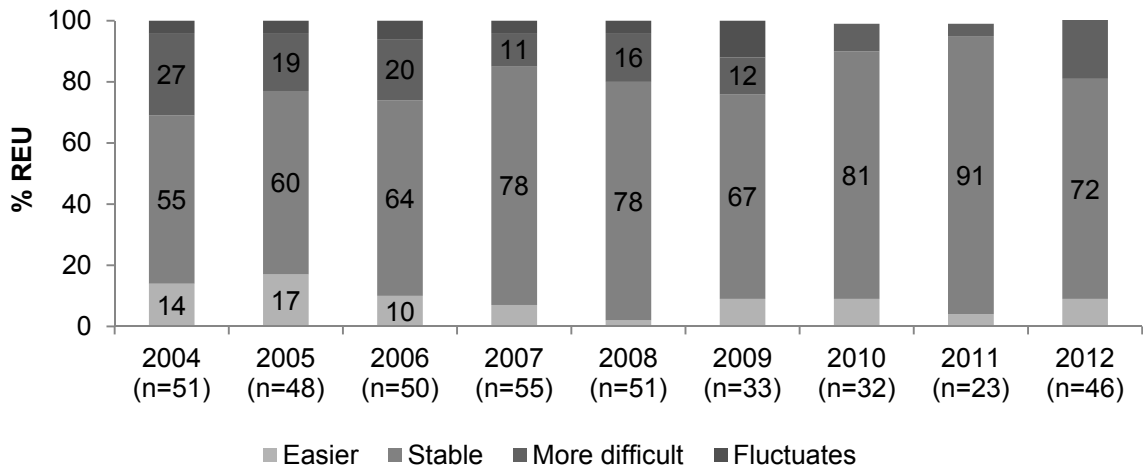
Figure 15 shows the proportion of the REU sample who indicated that each methamphetamine form was 'very easy' or 'easy' to obtain across the ten years of the study. In 2012 just over one-half (53%) reported that powder was 'easy' or 'very easy' to obtain compared to much greater proportions over the previous eight years (71-90%). Two KE also noted that the availability of methamphetamine powder had recently decreased

**Figure 13: REU reports of current availability of methamphetamine powder, 2004-2012**



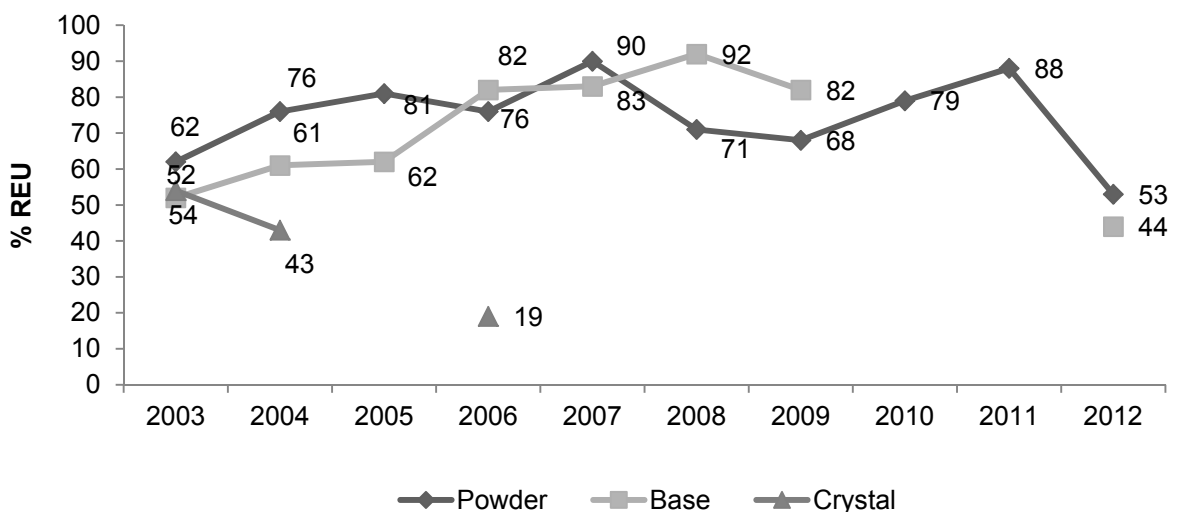
Source: EDRS interviews

**Figure 14: REU reports of change in methamphetamine powder availability in the last six months, 2004-2012**



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, 2003-2012**



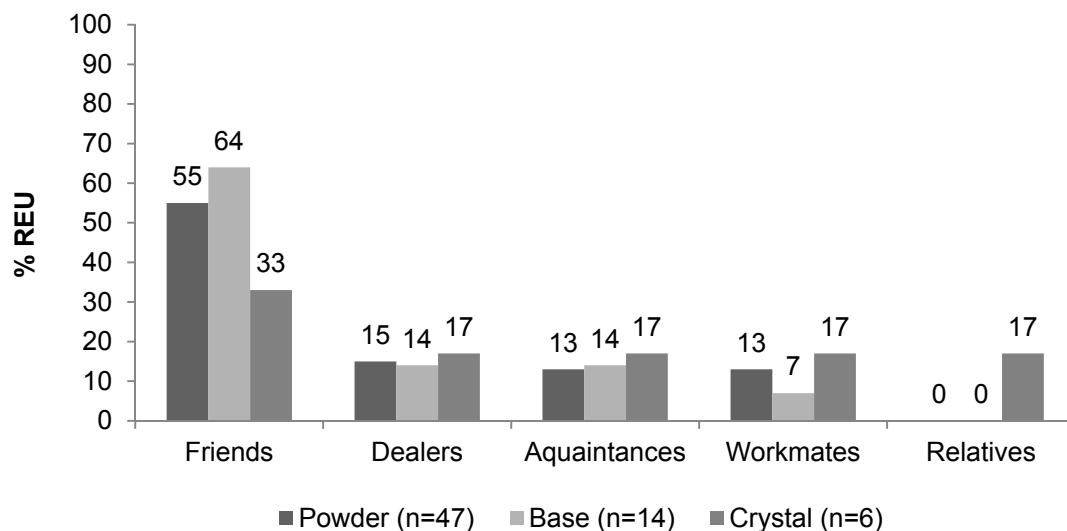
Source: EDRS interviews

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 (55% powder, 64% base, 33% crystal) (Figure 16). The most common locations for the last purchase of methamphetamine powder (Figure 17) were a friend's home (26%), the respondent's own home (17%), a nightclub (15%), or a dealer's home (13%).

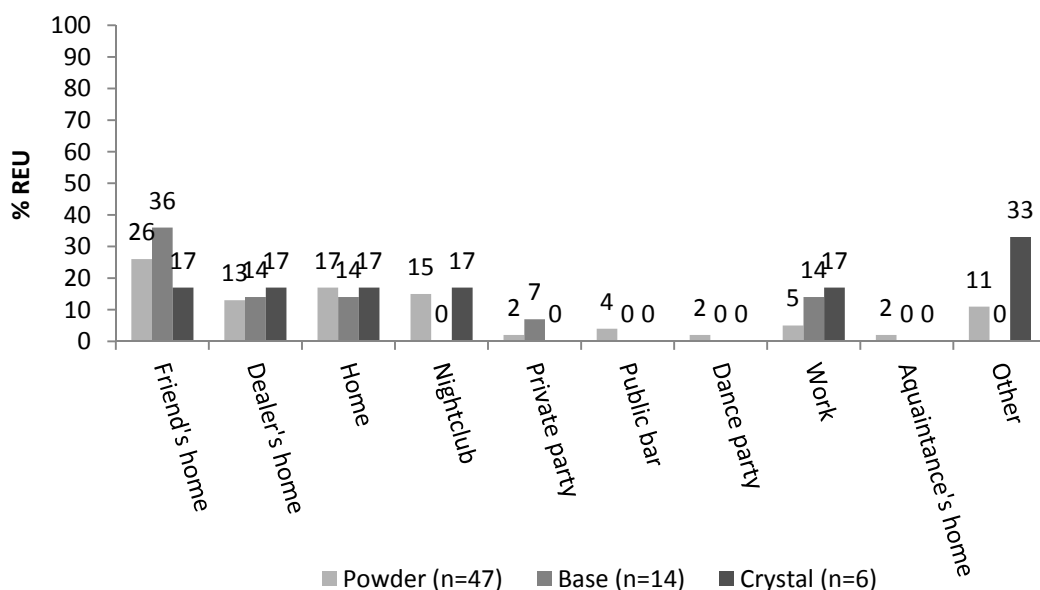
**Figure 16: People from whom methamphetamine powder, base and crystal were last purchased in the preceding six months, 2012**



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, 2012**



Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

## 5.3 Cocaine

### Summary:

- The median last purchase price for one gram of cocaine was stable at \$300 (range \$200-400) and no recent price trends were noted.
- Cocaine was primarily reported to be 'low' (46%) or 'medium' (46%) in purity and this purity was reported to have remained 'stable' (46%) or to have 'decreased' (36%) in the last six months. The proportion reporting that cocaine was 'low' in purity was greater in 2012 compared to 2011 (46% vs. 26%).
- The majority of those who commented on the availability of cocaine indicated that it was currently 'difficult' (57%) or 'very difficult' (43%) to obtain, and availability was reported to have remained stable in the last six months.
- Cocaine had most commonly last been 'used but not purchased' or had been purchased from friends.

### 5.3.1 Price

Table 38 shows median prices and price variations reported by REU for cocaine between 2003 and 2012. The median last purchase price for one gram of cocaine in 2012 was \$300 (range \$250-300) which is the same as the median price reported in 2011. Three-fifths (60%) indicated that the price had remained stable in the last six months.

**Table 38: Last purchase price of cocaine and perceptions of price changes in the last six months among REU who commented, 2004-2012**

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Median last price</b>									
Point (range)	-	\$65* (60-70)	\$45* (40-50)	\$30* (20-60)	\$90* (n=1)	\$100* (n=1)	\$35* (n=1)	-	<b>\$80*</b> <b>(40-120)</b>
Gram (range)	\$300* (200-400)	\$350* (180-400)	\$310 (250-400)	\$320* (250-380)	\$350 (200-450)	\$300* (300-600)	\$350 (80-350)	\$300 (200-400)	<b>\$300*</b> <b>(250-350)</b>
<b>Price change (%)</b>	n=8	n=4	n=11	n=12	n=17	n=9	n=17	n=13	<b>n=10</b>
Increased	13	25	-	25	18	33	6	15	<b>10</b>
Stable	75	75	73	25	59	56	71	77	<b>60</b>
Decreased	-	-	27	17	24	11	12	-	<b>20</b>
Fluctuated	13	-	-	33	-	-	12	8	<b>10</b>

Source: EDRS interviews

\* n<10

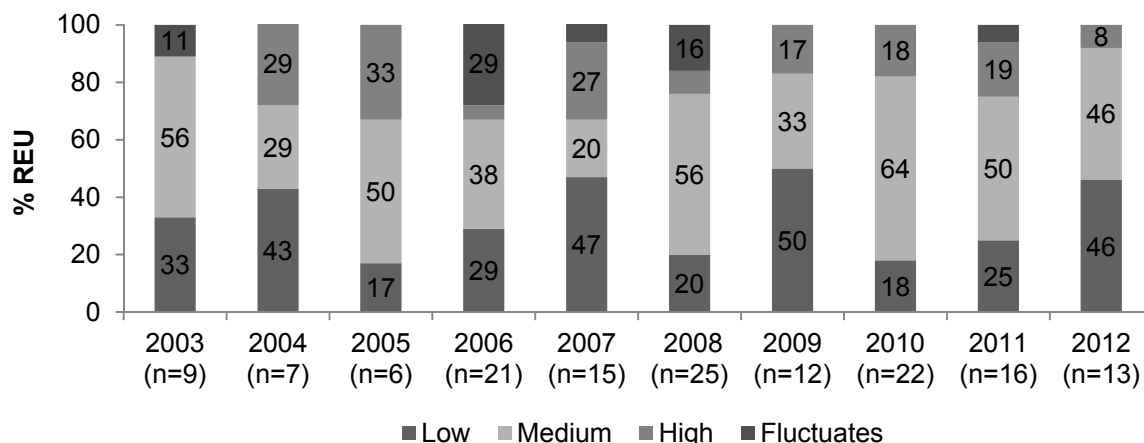
Cocaine prices were reported by Tasmania Police for the 2009/10 ACC report (ACC, 2011). The price for one gram of cocaine in Tasmania was reported to be \$300-400, which is relatively consistent with price reported by REU in 2011 and 2012. There were no price data for cocaine in the 2010/11 report and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

### 5.3.2 Purity

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 2012 indicated that cocaine was currently low (46%) or medium (46%) in purity. Although based on relatively small sample sizes, the proportion reporting that cocaine was 'low' in purity was greater in 2012 compared to 2011 (46% vs. 26%). Those that commented on changes in purity in the last six months

indicated that it had remained stable (67%) or had recently decreased (36%) (Figure 19). Several KE (n=23) also commented that the purity of cocaine had recently decreased

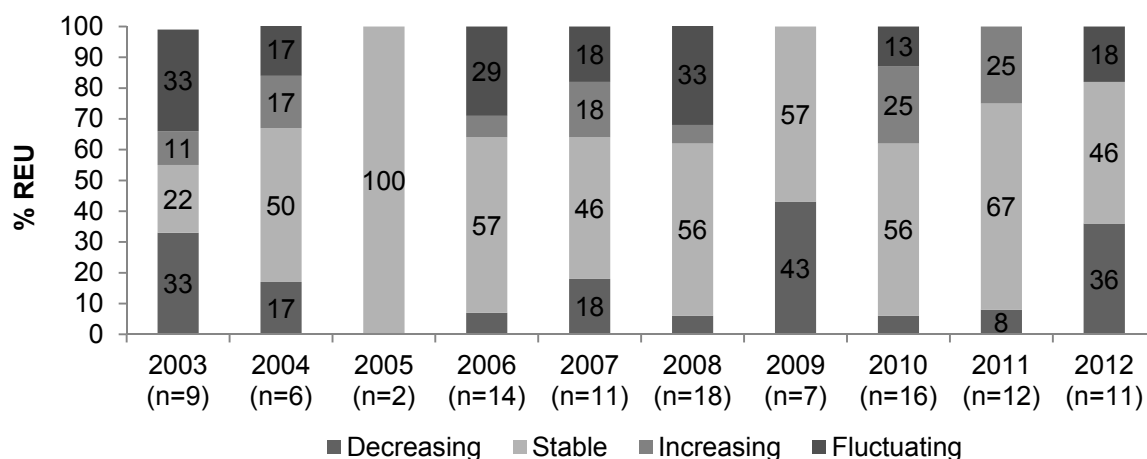
**Figure 18: REU reports of current purity of cocaine, 2003-2012**



**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, 2003-2012**



**Source: EDRS interviews**

Note: Where n<10 data should interpreted with caution

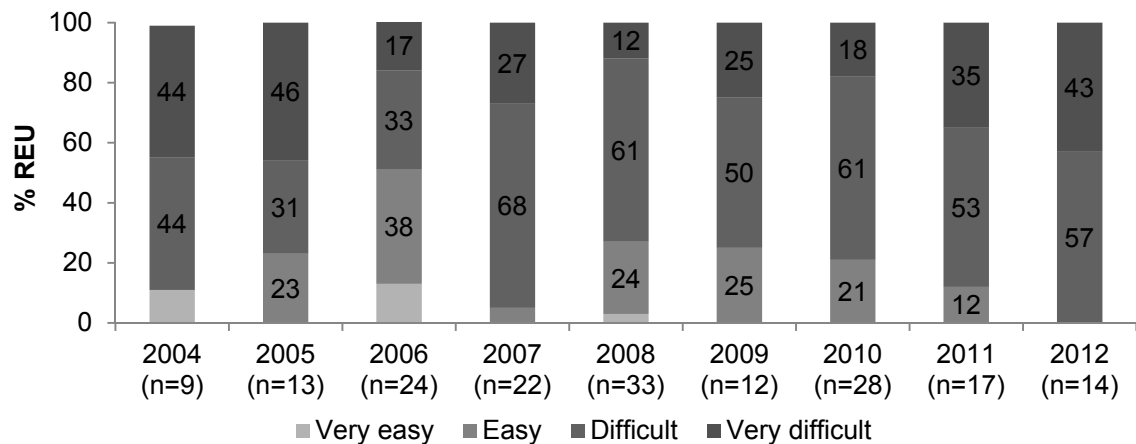
One sample of cocaine seized within the state by Tasmania Police was reported by the ACC for the 2009/10 period (ACC, 2011). This was an amount of greater than two grams and was 71.7% purity. Data for the 2011/12 reporting period was unavailable at the time of publication.

### 5.3.3 Availability

The majority of those who commented on the current availability of cocaine (see Figure 20) indicated that cocaine was currently 'difficult' (57%) or 'very difficult' (43%) to obtain. Availability was reported to have remained 'stable' (57%), to have become 'more difficult' (21%) or to have 'fluctuated' (21%) during the preceding six months (Figure 21). Some KE indicated that the availability of cocaine had recently increased (n=3) while others indicated that it had recently decreased (n=3). Several KE also indicated that the cocaine available in Hobart had typically been purchased from interstate.

Cocaine had last been 'used but not scored' (44%) or purchased from friends (31%) and most commonly had been last obtained from a public bar (19%), friend's home (13%), or the respondent's workplace (13%) (Table 39).

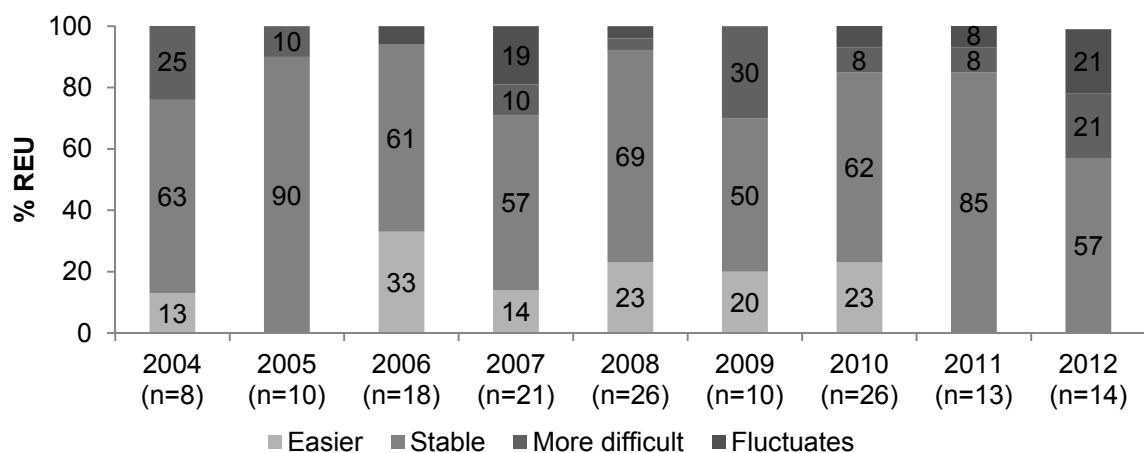
**Figure 20: REU reports of current availability of cocaine, 2004-2012**



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, 2004-2012**



Source: EDRS interviews

Note: Where n<10 data should interpreted with caution

**Table 39: REU reports of last cocaine source in the preceding six months, 2009-2012**

<b>Cocaine</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Person last scored from</b>	<b>n=11</b>	<b>n=23</b>	<b>n=19</b>	<b>n=16</b>
Used not scored (%)	-	-	11	<b>44</b>
Friends (%)	73	78	47	<b>31</b>
Dealers (%)	18	17	26	<b>6</b>
Acquaintances (%)	9	4	5	<b>6</b>
Unknown dealers (%)	-	-	5	-
Work mates (%)	-	-	5	<b>13</b>
<b>Location last scored</b>	<b>n=11</b>	<b>n=23</b>	<b>n=19</b>	<b>n=16</b>
Used not scored (%)	-	-	11	<b>44</b>
Home (%)	36	13	5	-
Friend's home (%)	55	48	37	<b>13</b>
Dealers' home (%)	9	9	5	-
Rave/dance party (%)	-	-	-	-
Nightclub (%)	-	4	-	<b>6</b>
Public bar (%)	-	17	21	<b>19</b>
Private party (%)	-	4	-	-
Agreed public location (%)	-	-	5	-
Live music event (%)	-	-	5	-
Acquaintance's home (%)	-	4	-	<b>6</b>
Work (%)	-	-	-	<b>13</b>
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' (56%) or 'medium' (35%) and to have remained stable during the last six months.
- A large majority of those commenting indicated that LSD was 'very easy' (31%) or 'easy' (42%) to obtain and that availability had recently been stable (74%).
- 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 40. The median last purchase price for one tab of LSD was \$20 (range \$5-25) in 2012, which is consistent with the median price of \$20 reported in 2011. A majority (82%) of those who commented on the price of LSD indicated that it had remained stable during the six months preceding the interview.

**Table 40: Prices of LSD purchased by REU, 2004-2012**

<b>LSD</b>	2004	2005	2006	2007	2008	2009	2010	2011	<b>2012</b>
<b>Median last price</b>	n=24	n=30	n=29	n=14	n=27	n=27	n=18	n=26	<b>n=28</b>
Tab (range)	\$20 (5-40)	\$25 (10-40)	\$20 (10-50)	\$15 (10-25)	\$20 (12-60)	\$20 (10-45)	\$25 (10-25)	\$20 (10-35)	<b>\$20 (5-25)</b>
<b>Price change (%)</b>	n=31	n=31	n=30	n=19	n=28	n=26	n=21	n=29	<b>n=34</b>
Increased	10	13	10	11	14	-	14	14	<b>6</b>
Stable	77	68	53	74	68	77	81	79	<b>82</b>
Decreased	3	10	13	16	11	12	-	3	<b>6</b>
Fluctuated	10	10	23	-	7	12	5	3	<b>6</b>

**Source: EDRS interviews**

Tasmania Police reported a price of \$25 for one tab of LSD in 2009/10 (ACC, 2011) which is consistent with the price of \$25 reported by REU in 2010. There were no price data for LSD in the 2010/11 report and data for the 2011/12 reporting period were unavailable at the time of publication.

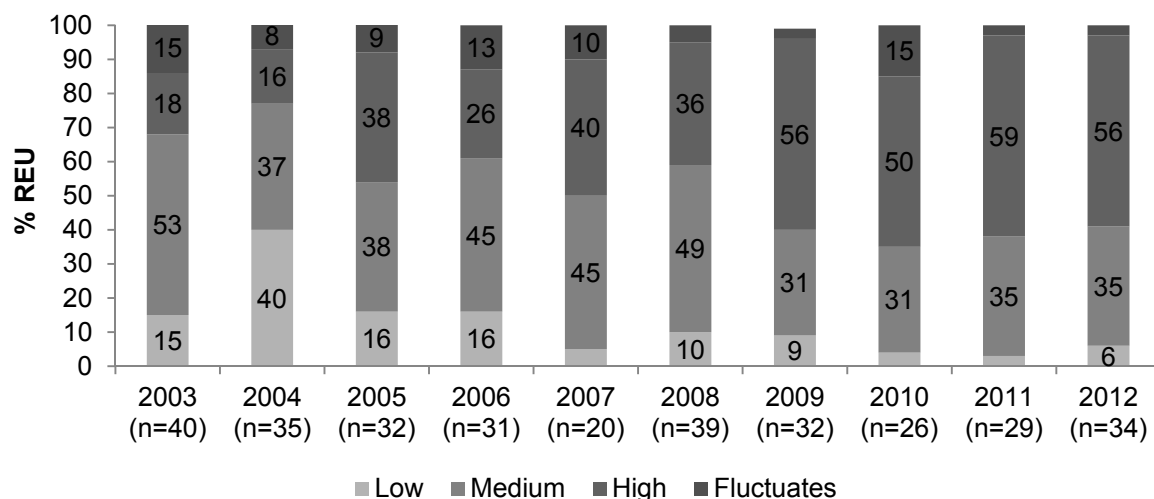
Those KE who commented (n=3) on LSD indicated that the price for a tab ranged from \$20-30 which is relatively consistent with the prices reported above.

### 5.4.2 Purity

LSD was typically reported to be high (56%) or medium (35%) in purity (Figure 22), and this purity was reported to have remained stable (63%) during the six months preceding the interview (Figure 23).

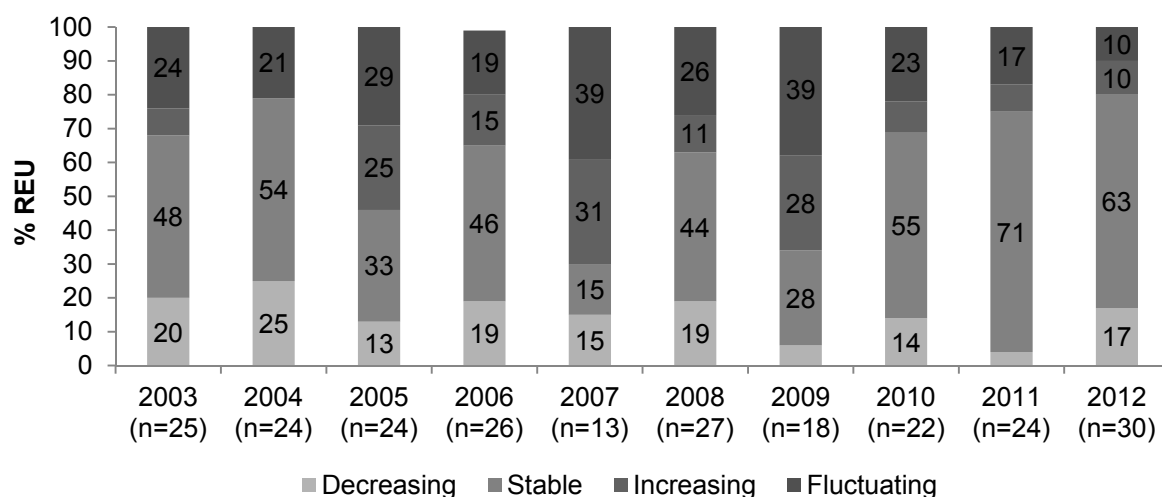


**Figure 22: Current purity of LSD, 2003-2012**



Source: EDRS interviews

**Figure 23: Recent change in purity of LSD, 2003-2012**



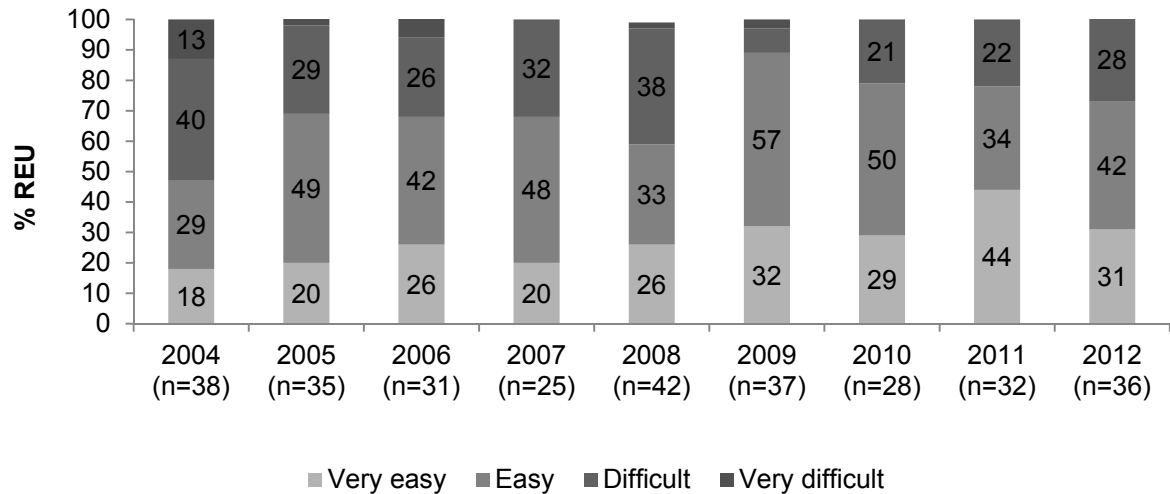
Source: EDRS interviews

### 5.4.3 Availability

A large majority of those who commented in 2012 reported that LSD was currently 'very easy' (31%) or 'easy' (42%) to obtain (see Figure 24), with the majority (74%) of those who commented indicating that the availability of LSD had recently remained stable (Figure 25).

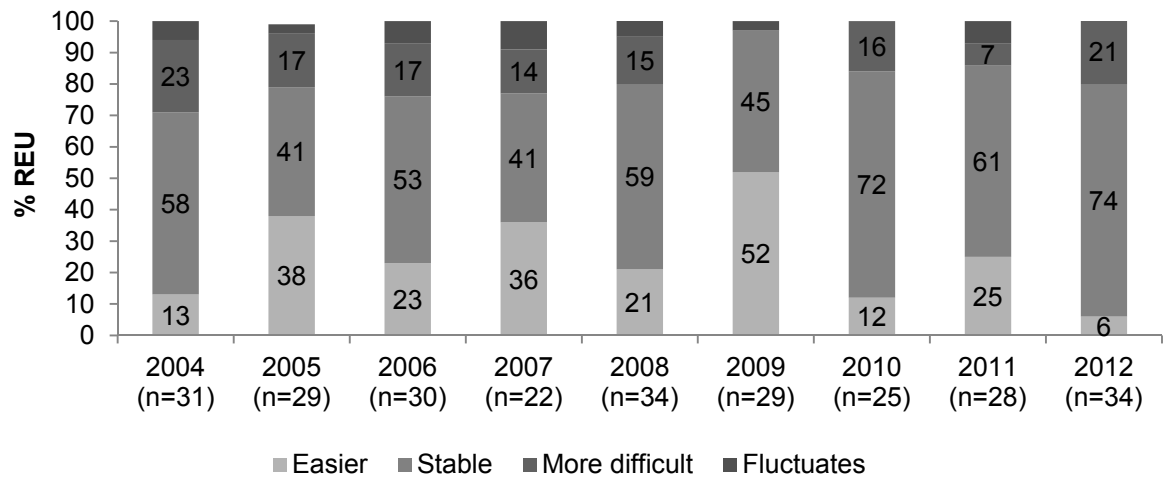
On the last occasion, LSD had most commonly been obtained from friends (77%) at either private residences (31% friend's home, 19% own home) or at a rave/doof/dance party (31%) (Table 41).

**Figure 24: REU reports of current availability of LSD, 2004-2012**



Source: EDRS interviews

**Figure 25: REU reports of change in LSD availability in the last six months, 2004-2012**



Source: EDRS interviews

**Table 41: REU reports of availability of LSD in the preceding six months, 2009-2012**

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

**Source: EDRS interviews**

## 5.5 Cannabis

### Summary:

- The median last purchase price for one ounce of hydroponically-grown ('hydro') cannabis was \$300 (range \$150-350) compared to a median of \$250 (range \$70-320) for 'bush' grown cannabis. The median last purchase weight for one \$25 bag of 'hydro' was 1.5 grams (range 1.2-2.5 g), compared to a median of 2 grams (1.5-2.3 g) for 'bush'.
- The potency of 'hydro' was reported to be high (55%) and the potency of 'bush' was reported to be medium (56%) 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 42) and bush-grown ('bush') cannabis (Table 43). Those price estimates which are based on small sample sizes (<10) should be interpreted with caution. The median last purchase price for one ounce (28 g) of hydro was \$300 (range \$150-350) compared to \$250 (range \$70-320) for bush. The median last purchase price for a quarter of an ounce (7 g) was \$90 (range \$25-190) for hydro and \$70 (range \$15-150) for bush. The median last purchase weight for one \$25 bag of hydro was 1.5 grams (range 1.2-2.5 g), compared to a median of 2 grams (1.5-2.3 g) for bush. A majority of those who commented on recent price changes indicated that the price of hydro (85%) and bush (83%) had recently remained stable.

**Table 42: Price and weights of hydro cannabis purchased by REU, 2006-2012**

Last purchase price	2006	2007	2008	2009	2010	2011	2012
One gram (range)	\$15* (10-25)	\$25* (25-25)	\$15* (\$10-20)	\$20* (15-25)	\$15* n=1	-	<b>\$20*</b> <b>(10-25)</b>
1/4 ounce (range)	\$85 (70-100)	\$80 (70-90)	\$90 (80-270)	\$80 (25-110)	\$90 (75-100)	\$70* (50-100)	<b>\$90</b> <b>(25-190)</b>
1/2 ounce (range)	\$155* (140-180)	\$145* (125-180)	\$180* (170-180)	\$150 (50-300)	\$180* (170-180)	\$162.50 * (125-200)	<b>\$155*</b> <b>(150-250)</b>
One ounce (range)	\$250 (200-300)	\$250 (230-300)	\$250 (250-350)	\$280 (100-350)	\$275 (250-350)	\$287* (225-350)	<b>\$300</b> <b>(150-350)</b>
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)	<b>1.5</b> <b>(1.2-2.5)</b>
Grams per \$50 bag (range)		-	3.1 (2.5-4)	3 (2-3.5)	3.5* (3-7)	3* (2.5-5)	<b>4*</b> <b>(3.5-5)</b>
<b>Price change</b>	n=48	n=30	n=34	n=39	n=36	n=7	<b>n=48</b>
Increased (%)	4	17	24	15	17	-	<b>8</b>
Stable (%)	81	67	53	74	72	100	<b>85</b>
Decreased (%)	6	3	9	3	3	-	<b>-</b>
Fluctuated (%)	8	13	15	8	8	-	<b>6</b>

Source: EDRS interviews

\*n<10

**Table 43: Price and weights of bush cannabis purchased by REU, 2006-2012**

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

**Source: EDRS interviews**

\*n<10

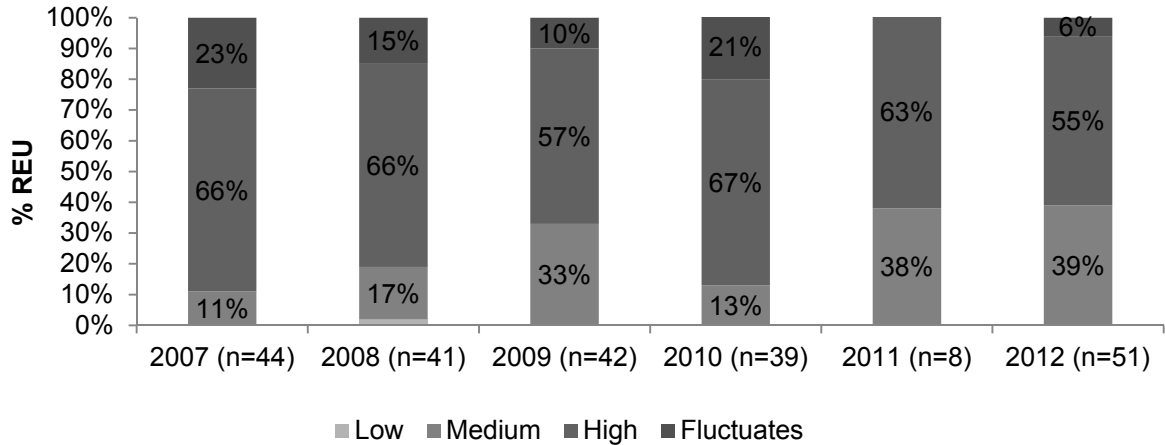
The last purchase price for a gram of hash was reported to be \$100 (range 10-250, n=3) and one ounce of hash was reported to be \$400 (n=1).

In 2010/11 Tasmania Police reported that the price for one deal (approximately 1 gram) of both hydro and bush cannabis was \$25 and the price for one ounce was reported to be \$300-350 (ACC, 2012). Data for the 2011/12 financial year was unavailable at the time of publication.

### 5.5.2 Potency

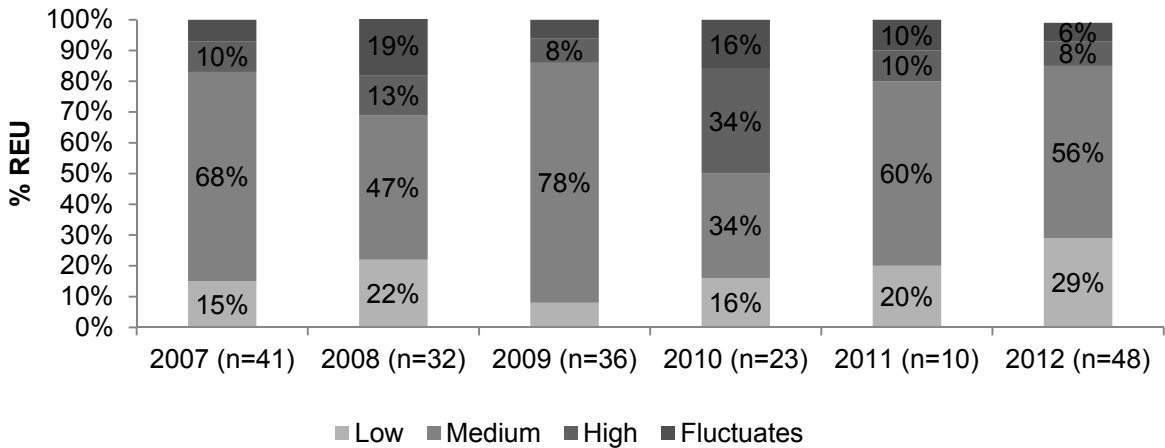
Participants were asked to comment on the current potency of hydroponic (Figure 26) and bush cannabis (Figure 27) and changes in potency during the six months preceding the interview (Figure 28). Hydroponically-grown cannabis was reported to be currently 'high' (55%) or medium (39%) in potency, while bush was reported to be medium (56%) or low (29%) in potency. The majority of those who commented indicated that the potency of both bush (80%) and hydro (67%) had remained stable during the preceding six months.

**Figure 26: Current potency of hydro cannabis, 2007-2012**



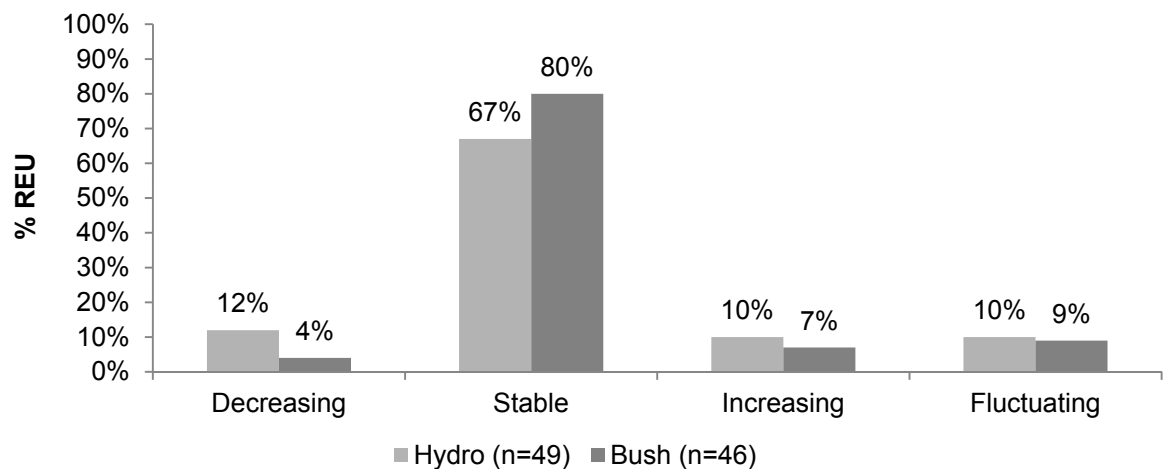
Source: EDRS interviews

**Figure 27: Current potency of bush cannabis, 2007-2012**



Source: EDRS interviews

**Figure 28: Recent change in potency of cannabis, 2012**



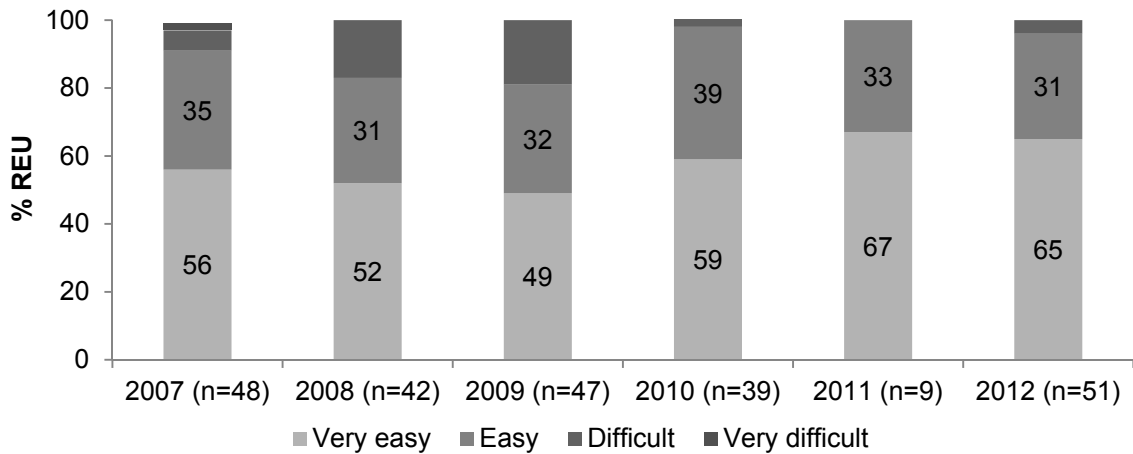
Source: EDRS interviews

### 5.5.3 Availability

REU were asked to comment on the current availability of 'hydro' and 'bush' cannabis (Figure 29 and 30 respectively) and changes in this availability (Figure 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' (65%) or 'easy' (31%) to obtain, and that this availability had been 'stable' (94%) during the preceding six months. Similarly, 'bush' was reported to be 'very easy' (51%) or 'easy' (43%) to obtain with availability 'stable' (83%) during the last six months.

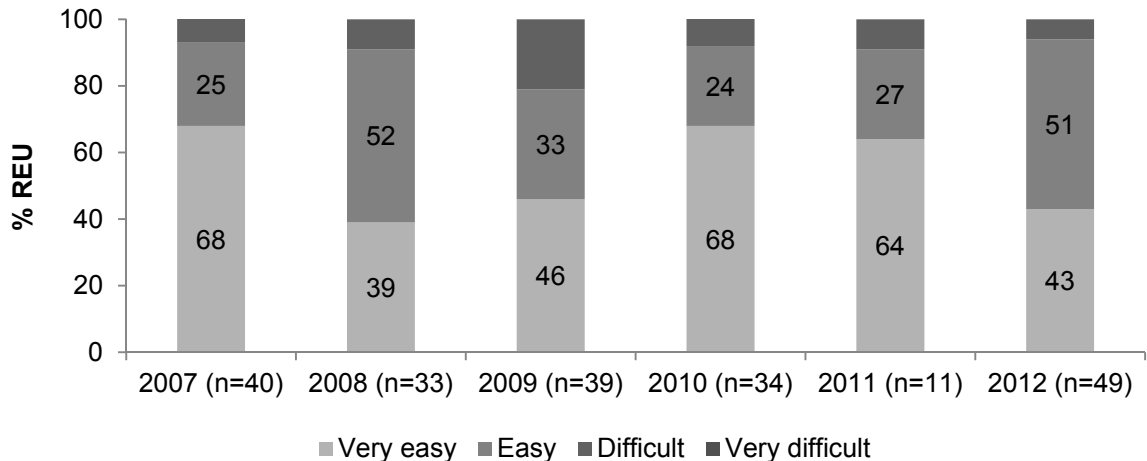
REU were asked who they had last obtained cannabis from, and the location that they had last scored the drug in the preceding six months (Table 44). 'Hydro' was most commonly last obtained through purchases from friends (60%) or dealers (26%) at private residences, most typically a friend's home, dealer's home, or the respondent's own home. Similarly, 'bush' was last obtained from friends (63%) or dealers (22%), and was most typically last obtained at private residences.

**Figure 29: REU reports of current availability of hydro cannabis, 2007-2012**



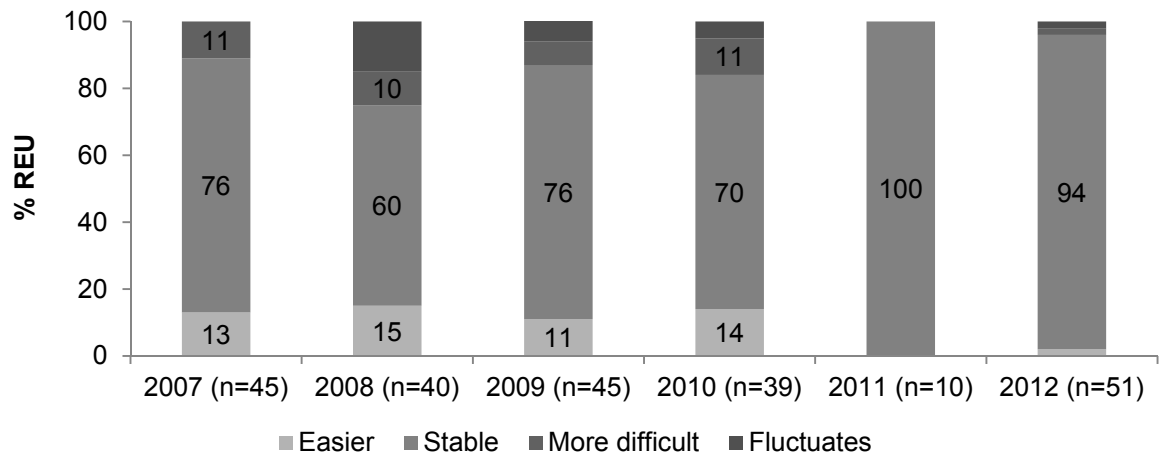
Source: EDRS interviews

**Figure 30: REU reports of current availability of bush cannabis, 2007-2012**



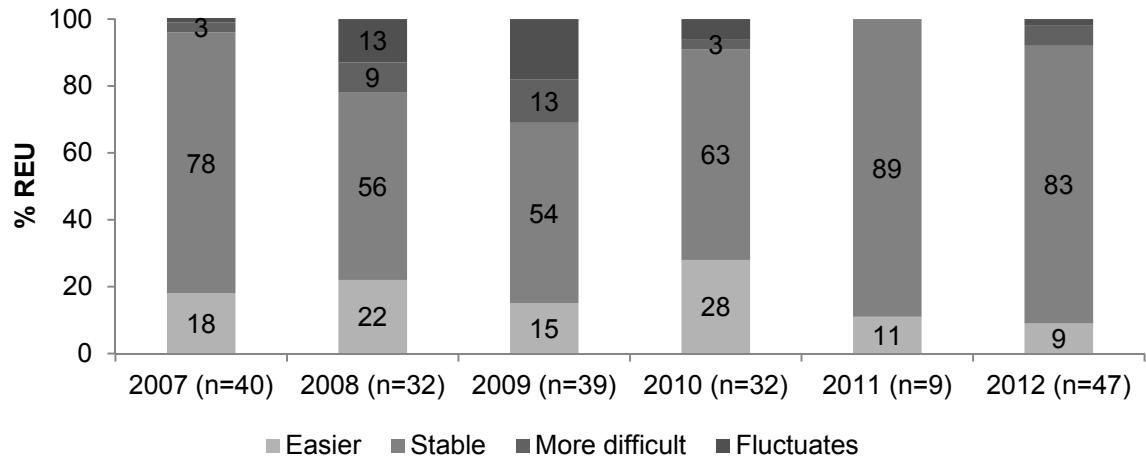
Source: EDRS interviews

**Figure 31: REU reports of change in hydro cannabis availability in the last six months, 2007-2012**



Source: EDRS interviews

**Figure 32: REU reports of change in bush cannabis availability in the last six months, 2007-2012**



Source: EDRS interviews



**Table 44: REU reports of last cannabis source in the preceding six months, 2009-2012**

	Hydro				Bush			
	2009	2010	2011	2012	2009	2010	2011	2012
<b>Person last scored*</b>	n=45	n=38	n=9	<b>n=50</b>	n=36	n=29	n=11	<b>n=46</b>
Used not scored (%)	9	-	-	<b>2</b>	8	-	-	<b>4</b>
Friends (%)	51	82	56	<b>60</b>	61	79	64	<b>63</b>
Dealers (%)	33	5	44	<b>26</b>	22	17	27	<b>22</b>
Workmates (%)	4	3	-	<b>4</b>	-	-	-	<b>2</b>
Acquaintances (%)	2	3	-	<b>2</b>	8	3	-	<b>2</b>
Unknown persons (%)	-	3	-	<b>6</b>	-	-	-	<b>7</b>
<b>Last location scored*</b>	n=45	n=37	n=10	<b>n=50</b>	n=36	n=29	n=11	<b>n=46</b>
Used not scored (%)	9	-	-	<b>2</b>	8	-	-	<b>10</b>
Home delivery (%)	16	27	27	<b>32</b>	11	31	27	<b>26</b>
Friend's home (%)	40	51	36	<b>36</b>	44	48	36	<b>39</b>
Dealer's home (%)	24	5	27	<b>18</b>	22	10	27	<b>18</b>
Acquaintance's home (%)	7	3	-	-	8	3	-	-
Agreed public location (%)	2	8	-	<b>2</b>	3	3	-	-
Street market (%)	-	-	-	-	3	-	-	-
Work (%)	-	3	-	<b>2</b>	-	-	-	<b>2</b>
Other (%)	-	3	-	<b>6</b>	-	3	9	<b>7</b>

**Source: EDRS interviews**

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

## 6.0 HEALTH-RELATED TRENDS

### Summary:

- **Overdose.** Less than one-tenth (4%) of the 2012 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 the years prior to 2011. In 2012, 4% reported a recent overdose episode on a stimulant drug (e.g., cocaine, ecstasy and other stimulants) and 2% reported a recent overdose on a depressant drug (primarily alcohol). 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.** Despite regular substance use, just over one-tenth (11%) 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 (55%) or a drug and alcohol worker (18%). Participants were most likely to access services in relation to the use of alcohol (50%), cannabis (30%), or ecstasy (10%). The main issues involved in these treatment episodes were mental health problems (27%), acute physical problems (18%), and cutting down use (18%).
- **Mental health problems.** One-third (34%) of the 2012 REU sample reported experience of mental health problems during the six months prior to the interview. Among these individuals, anxiety (71%) and/or depression (50%) was most commonly reported. Just two-fifths (41%) of those who had experienced mental health problems had attended a health professional in relation to these problems during this time.
- **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' was similar to the general Australian population (5% vs. 3.5%); however, the proportion of REU with scores classified as 'high' was significantly greater than the general population (28% vs. 8.5%). 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.** Almost two-fifths (39%) of the 2012 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-fifth (21%) 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, almost one-fifth (19%) reported repeated problems with family, friends, or people at work or school, and a very small proportion (3%) reported recurrent drug-related legal problems. Problems were most commonly attributed to cannabis and alcohol.
- **Ecstasy dependence.** Two-fifths (41%) of REU reported experiencing significant symptoms of dependence in relation to ecstasy, compared to a smaller proportion over the past three years (12-18%).

- **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 0.6% of all treatment episodes in the 2010/11 period (equating to approximately 10 treatment episodes out of a total of 1,653).
- **Tasmania hospital admission data.** There has been a substantial reduction in Tasmanian cannabis-related hospital admissions over the last three reporting periods with 22 cases reported in 2009/10. The Tasmanian admission rate observed in 2008/09 and 2009/10 is considerably lower than national rates (per million population).
- In 2008/09 there was a substantial reduction in Tasmanian admissions in relation to methamphetamine, with a rate well below the national admission rate observed for this period (76 vs. 157 admissions per million population). This disparity was also observed in 2009/10 (45 vs. 136 admissions per million population), along with decreased rates of admissions both nationally and in Tasmania.
- There has been very few hospital admissions recorded in Tasmania in relation to cocaine.

## 6.1 Overdose

One-quarter (24%) of 2012 REU had overdosed on any drug at some stage of their life (Table 45). Of those who had ever overdosed on any drug, the median number of times was 1.5 (range 1-20). One-twentieth (4%) of the 2012 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 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 45: Overdose (OD) on both stimulants and depressants among REU, 2005-2012**

	2005 n=99	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 <sup>#</sup> n=75	<b>2012 n=100</b>
Ever OD any drug (%)	30	24	27	23	24	16	53	<b>24</b>
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)	<b>1.5 (1-20)</b>
OD on any drug last 6 mths (%)	16	8	11	12	7	6	41	<b>6</b>
OD on stimulant drug last 6 mths (%)	n/a	n/a	2	6	1	2	13	<b>4</b>
Median times ever OD on stimulant (range)	n/a	n/a	2 (1-12)	1 (1-10)	1 (1-5)	2 (1-3)	2 (1-100)	<b>1 (1-20)</b>
OD on depressant drug last 6 mths (%)	n/a	n/a	9	7	6	4	32	<b>2</b>
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)	<b>1 (1-7)</b>

**Source: EDRS interviews**

Note: \*of those reporting overdose episode; <sup>#</sup>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 46). 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-tenth (13%) of the 2012 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 ecstasy (25%), cocaine (25%), DXM (25%) and capsules (contents unknown) (25%). Alcohol had also been consumed in all of these cases and mushrooms and cannabis had been consumed in single episodes. In 50% of cases the overdose episode occurred at a private location. REU typically received no treatment (50%) or were watched by friends (50%) on this occasion.

Just over one-tenth (13%) of the sample had ever overdosed on a depressant drug and two participants (2%) 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 (100%) and other drugs included methamphetamine (50%) and ecstasy (50%). In both cases the overdose episode occurred at a private residence and participants either received no treatment (50%) or were watched by friends (50%) on this occasion.

**Table 46: Characteristics of last overdose (OD) on stimulant and depressant drugs among REU, 2008-2012**

	Stimulant overdose					Depressant overdose				
	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100
<b>% main drug*</b>	n=6	n=1	n=2	n=10	<b>n=4</b>	n=7	n=6	n=4	n=24	<b>n=2</b>
Ecstasy	67	-	50	20	<b>25</b>	-	-	-	-	-
Meth powder	-	-	-	40	-	-	-	-	-	-
Meth base	17	-	-	-	-	-	-	-	-	-
Crystal meth	17	100	-	-	-	-	-	-	-	-
Alcohol	-	-	-	-	-	71	67	75	92	<b>100</b>
Benzodiazepines	-	-	-	-	-	29	-	-	-	-
Cannabis	-	-	-	-	-	-	17	-	-	-
GHB	-	-	-	-	-	-	17	-	-	-
Pharm. stimulants	-	-	50	10	-	-	-	-	-	-
Other opioids	-	-	-	-	-	-	-	25	-	-
Capsule (unknown)	-	-	-	10	-	-	-	-	-	-
Mephedrone	-	-	-	10	-	-	-	-	-	-
2CI	-	-	-	10	-	-	-	-	-	-
Heroin	-	-	-	-	-	-	-	-	8	-
Cocaine	-	-	-	-	<b>25</b>	-	-	-	-	-
DXM	-	-	-	-	<b>25</b>	-	-	-	-	-
Unknown capsules	-	-	-	-	<b>25</b>	-	-	-	-	-
<b>% other drugs*</b>	n=6	n=1	n=2	n=10	<b>n=4</b>	n=7	n=6	n=4	n=24	<b>n=2</b>
Ecstasy	17	-	50	10	-	43	33	50	8	<b>50</b>
Meth powder	17	-	-	-	-	14	-	-	-	-
Meth base	-	-	-	-	-	-	-	-	-	<b>50</b>
Crystal meth	17	-	-	-	-	-	-	-	-	-
Alcohol	67	-	50	70	<b>100</b>	14	17	25	8	-
Cannabis	50	-	50	40	<b>25</b>	29	-	25	33	-
Antidepressants	-	-	-	-	-	14	-	-	-	-
Benzodiazepines	17	-	-	10	-	14	-	-	4	-
Pharm. stimulants	17	-	-	-	-	-	-	-	-	-
Amyl nitrite	17	-	-	-	-	-	-	-	4	-
LSD	-	-	-	-	-	14	-	-	-	-
Other opioids	-	-	-	-	-	14	-	-	-	-
Cocaine	-	-	-	-	-	-	17	-	-	-
Methadone	-	-	-	-	-	-	-	25	-	-
Energy drinks	-	-	-	10	-	-	-	-	-	-
Mushrooms	-	-	-	-	<b>25</b>	-	-	-	-	-
<b>% last location*</b>	n=6	n=1	n=2	n=10	<b>n=4</b>	n=6	n=6	n=4	n=24	<b>n=2</b>
Home	17	100	100	10	<b>25</b>	17	33	-	33	<b>50</b>
Friend's home	33	-	-	50	<b>25</b>	50	-	50	21	<b>50</b>
Pub	17	-	-	10	<b>25</b>	-	-	-	17	-
Live music event	-	-	-	10	<b>25</b>	17	33	25	4	-
Nightclub	17	-	-	10	-	-	17	-	25	-
Public place	17	-	-	-	-	-	-	-	-	-
Rave/dance party	-	-	-	-	-	-	-	-	-	-
Outdoors	-	-	-	-	-	17	-	-	-	-
Private party	-	-	-	10	-	-	17	25	-	-
Other	-	-	-	-	-	-	-	-	-	-
<b>% last treatment*</b>	n=6	n=1	n=2	n=10	<b>n=4</b>	n=7	n=6	n=4	n=24	<b>n=2</b>
None	-	-	50	90	<b>50</b>	-	83	25	71	<b>50</b>
Watched by friends	100	-	-	10	<b>50</b>	71	-	50	17	<b>50</b>
Onsite help	-	-	-	-	-	29	-	25	-	-
Hospital/ambulance	-	-	-	-	-	-	17	-	4	-
Taken to doctor	-	100	-	-	-	-	-	-	-	-
Other	-	-	50	-	-	-	-	-	4	-
Dont know	-	-	-	-	-	-	-	-	4	-
<b>Median hours partying before OD (range)*</b>	8 (3-16)	120 n=1	10 n=1	6.75 (3-24)	<b>4</b> <b>(.2-48)</b>	8 (2-30)	n/a	18 (6-24)	6 (3-72)	<b>15</b> <b>(6-24)</b>

Source: EDRS interviews

\* Of those reporting overdose episode in last 6 months

## 6.2 Help-seeking behaviour

Just over one-tenth (11%; n=11) of the 2012 REU sample had accessed a health or medical service in relation to their drug use in the six months preceding interview (Table 47).

Among those who had recently accessed health services, the most commonly accessed services were a GP (55%), a drug and alcohol worker (18%), a counsellor (9%) or a psychologist (9%).

Services had been accessed primarily in relation to alcohol (50%), cannabis (30%) or ecstasy (10%). The main issues involved in these treatment episodes were mental health problems (27%), acute physical problems (18%), and cutting down use (18%).

**Table 47: Access to health services in relation to drug use among REU, 2005-2012**

	2005 n=99	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	2012 n=100
<b>Accessed health service last 6 months (%)</b>	17	22	15	14	13	14	13	11
<b>Services accessed (%)*</b>	n=17	n=22	n=15	n=14	n=13	n=14	n=12	n=11
GP	59	45	40	50	69	29	50	55
First aid	12	23	7	21	15	14	-	-
Ambulance	-	27	-	7	8	7	-	-
Emergency	12	18	-	21	15	7	17	-
Hospitalisation	6	14	-	-	15	-	-	-
Counsellor	18	14	27	21	23	21	17	9
Drug and alcohol worker	-	14	7	7	23	15	8	18
Psychologist	6	14	13	7	15	39	8	9
Psychiatrist	6	9	-	7	15	17	-	-
Telephone counselling	-	-	-	-	-	8	-	-
Internet counselling	-	-	7	-	8	-	-	-
Other	6	-	-	-	-	7	-	9
<b>Main drug involved (%)*</b>						n=23	n=12	n=10
Alcohol						39	42	50
Ecstasy						13	-	10
Methamphetamine						4	-	-
Cannabis						22	8	30
Methadone						-	-	-
Polydrug						9	17	-
Mephedrone						9	-	-
Heroin						-	8	-
Methadone						-	-	-
Other opioids						4	8	-
<b>Main issue involved (%)*</b>						n=23	n=12	n=11
Dependence/addiction						39	8	-
Cutting down drug use						-	17	18
Mental health problems						13	25	27
First aid/acute physical						13	8	18
Court diversion						4	-	9
Self-harm						30	-	-
Aggression/violent behaviour						-	8	-
Physical accident						-	8	-
Liver function test						-	8	-
Information/advice						-	-	9
Other						-	17	9

**Source: EDRS interviews**

\*out of the total number of treatment episodes, participants may have attended more than one treatment type for more than one problem

## 6.3 Mental health problems and psychological distress

### 6.3.1 Mental health problems

One-third (34%) of the 2012 REU sample reported that they had experienced mental health problems during the six months prior to the interview (Table 48). Of those who had experienced mental health problems, the most common problems experienced were anxiety (71%), depression (50%), paranoia (32%), and panic (15%).

One-tenth of the sample (14%) and just over two-fifths (41%) of those who reported experiencing mental health problems had attended a health professional in relation to these problems during the last six months.

Less than one-tenth of the sample reported being prescribed antidepressants (1%), benzodiazepines (4%) or antipsychotics (1%) for psychological conditions during this time.

**Table 48: Self-reported mental health problems, 2007-2012**

	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Experienced mental health problem last 6 mths (%)	35	27	30	30	27	<b>34</b>
<b>Type of mental health problem*</b>	n=35	n=27	n=30	n=30	n=20	<b>n=34</b>
Depression (%)	66	70	67	60	50	<b>50</b>
Anxiety (%)	54	70	73	60	60	<b>71</b>
Paranoia (%)	14	15	20	17	10	<b>32</b>
Panic (%)	9	-	7	10	20	<b>15</b>
Psychosis (%)	6	11	-	3	5	<b>3</b>
Obsessive compulsive disorder (%)	6	15	3	3	-	<b>-</b>
Bipolar disorder (%)	3	11	-	10	15	<b>3</b>
Eating disorder (%)	3	-	-	-	-	<b>-</b>
Self-harm (%)	3	-	-	-	-	<b>-</b>
Schizophrenia (%)	-	4	-	-	-	<b>3</b>
Mania (%)	-	4	-	-	-	<b>3</b>
Personality disorder (%)	-	4	-	-	5	<b>-</b>
Phobia (%)	-	-	3	-	-	<b>-</b>
Post-traumatic stress disorder (%)	-	-	-	-	-	<b>-</b>
Seen mental health professional in last 6 mths (%)	34	48	53	33	19	<b>14</b>
Prescribed antidepressants last 6 mths (%)	17	19	30	3	7	<b>1</b>
Prescribed benzodiazepines in last 6 mths (%)	9	22	20	3	7	<b>4</b>
Prescribed antipsychotics in last 6 mths (%)	3	7	-	3	3	<b>1</b>

**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 5-point Likert scale.

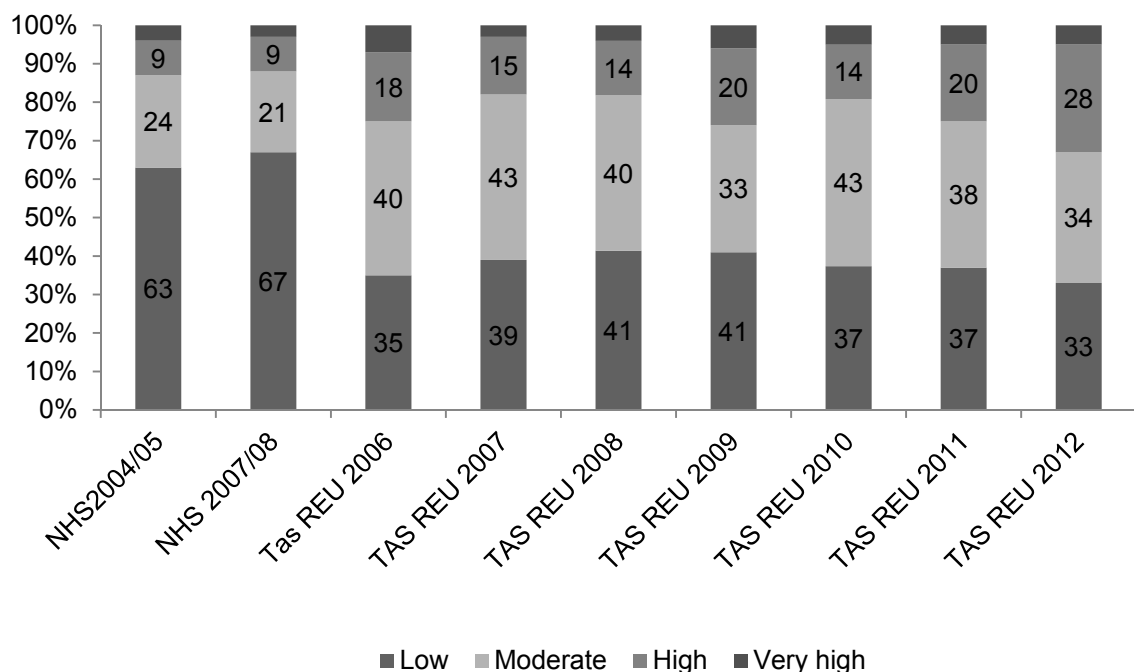
Among a normative Australian population sample, the mean K10 score was 14.2 with a median of 12 (range 0-50) (Andrews & Slade, 2001). Among the REU interviewed in 2012, the mean K10 score was higher at 22.7 (SD=6.3) and the median was 22.5 (range 12-34) out of a possible score of 50.

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 problem and may benefit from interventions with a health professional (Andrews & Slade, 2001).

In the current sample, only 5% 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%), and one-third each scored in the 'moderate' (34%) and 'low' categories.

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 2012 EDRS sample with scores categorised as 'very high' is similar to the 2007/08 NHS sample (5%, 95%CI 2-11% vs. 3.5%, 95%CI 3.2-3.8%,  $p>.05$ ). However, the proportion with scores categorised as high is significantly greater than that of the 2007/08 NHS sample (28%, 95%CI 20-37% vs. 8.5%, 95%CI 8.1-9.0,  $p<.001$ ).

**Figure 33: Responses to the K10 questionnaire in the National Health Survey 2004/05-2007/08 and EDRS, 2006-2011**



Source: EDRS interviews, 2006-2011 and 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 49). These questions were chosen to be consistent with diagnostic criteria for substance abuse disorders, and are based on the Comprehensive International Diagnostic Interview (CIDI). Almost two-fifths (39%, 95%CI 30-49%) reported any recurrent drug-related problem, suggestive of possible substance abuse, which is significantly fewer relative to the proportion observed in 2011 (59%, 95%CI 47-69%) but similar to the proportion in 2010 (35%, 95%CI 26-45%). 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-fifth (21% 95%CI 14-30) 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, which is significantly fewer than the proportion in 2011 (40%, 95%CI 30-51%), but similar to the proportion in 2010 (22%, 95%CI 15-31). Almost one-fifth of the sample (19%) reported that their drug use caused them to have repeated problems with family, friends, or people at work or school. A very small proportion of the EDRS sample (3%) reported that they had experienced recurrent drug-related legal problems.

**Table 49: Self-reported recurrent drug-related problems in last six months, 2007-2012**

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

**Source: EDRS interviews**

Table 50 shows the main drug attributed to the problems experienced by REU during the six months preceding the interview. The substances most commonly associated with drug-related problems were cannabis and alcohol.

**Table 50: Main drug attributed to problems experienced in the last six months, 2012**

	<b>Responsibility problems</b>	<b>Risk problems</b>	<b>Social problems</b>	<b>Legal problems</b>
	n=33	n=21	n=19	n=3
Ecstasy	-	14	5	-
Cannabis	49	10	47	67
Meth. powder	-	5	5	-
Alcohol	52	71	42	33

**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 5 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). Another consideration is the fact that many ecstasy pills also include methamphetamine as well as, or instead of, MDMA, and there is well documented evidence that methamphetamine is associated with symptoms of dependence.

The median ecstasy SDS score was 1 (range 0-7). Two-fifths of participants (45%) obtained a score of zero on the ecstasy SDS, and one-tenth (10%) obtained a score of 1 on the scale (Table 51): thus, over one-half of 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). Two fifths (41%) of the 2012 REU sample had a score of 3 or above on the ecstasy SDS (compared to just 12% in 2011) and 33% had a score of 4 or more (compared to just 5% in 2011).

**Table 51: Self-reported symptoms of ecstasy dependence, 2007-2012**

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

Source: EDRS interviews

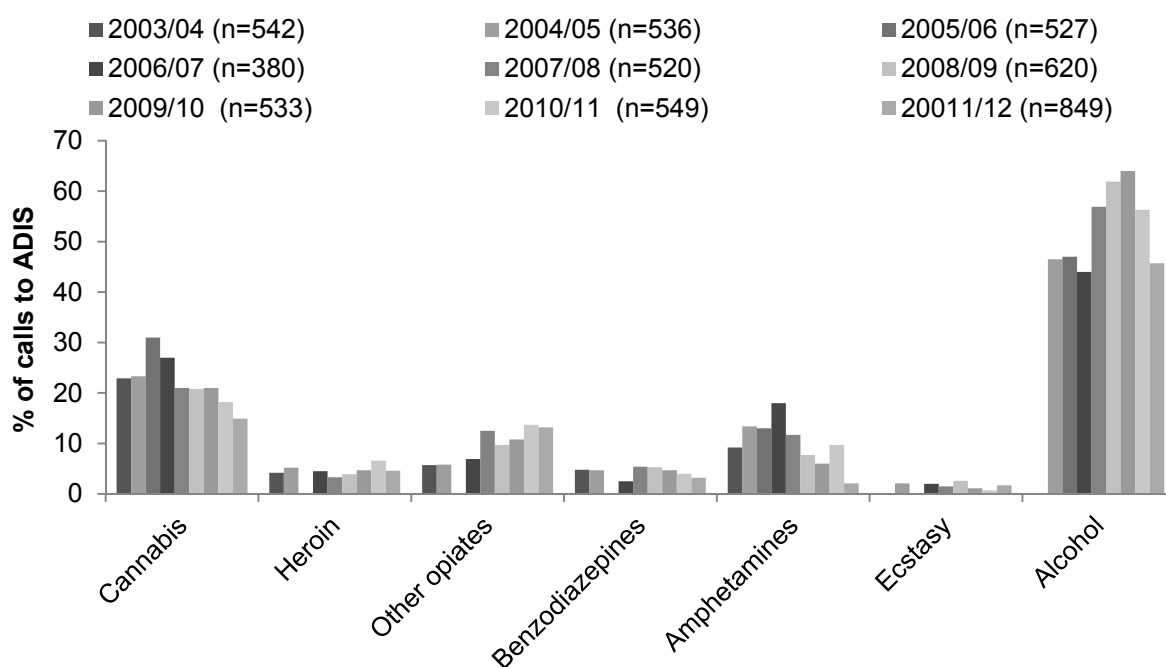
## 6.5 Drug treatment indicator data

### 6.5.1 Alcohol and Drug Information Service data

The Tasmanian Alcohol and Drug Information Service (ADIS) is a telephone information and referral service that is administered by Turning Point Alcohol and Drug Centre in Victoria (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 (4-17 calls per annum) have been recorded in relation to ecstasy between the 2000/01 and the 2011/12 reporting periods (Figure 34), with ten calls (1.7% of all calls) recorded in 2011/12.<sup>6</sup> 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 2011/12 reporting period, over two-fifths (46%) of all calls related to alcohol, followed by cannabis (15%), and opioids (4.6% heroin, 8.6% other), 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**

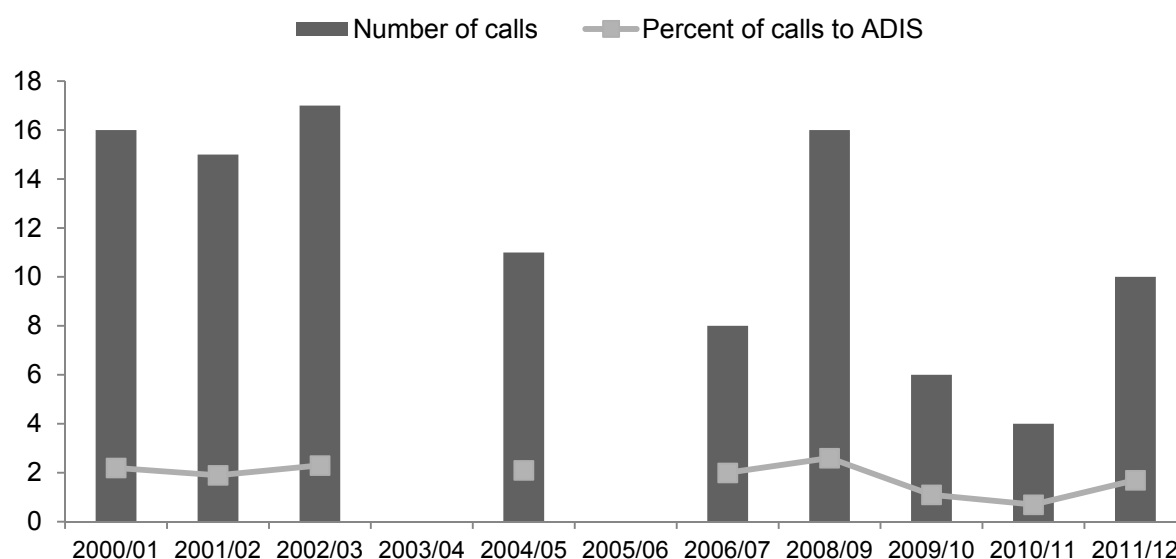


**Source: ADIS Tasmania reports, Turning Point Alcohol and Drug Centre**

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.

<sup>6</sup> 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**

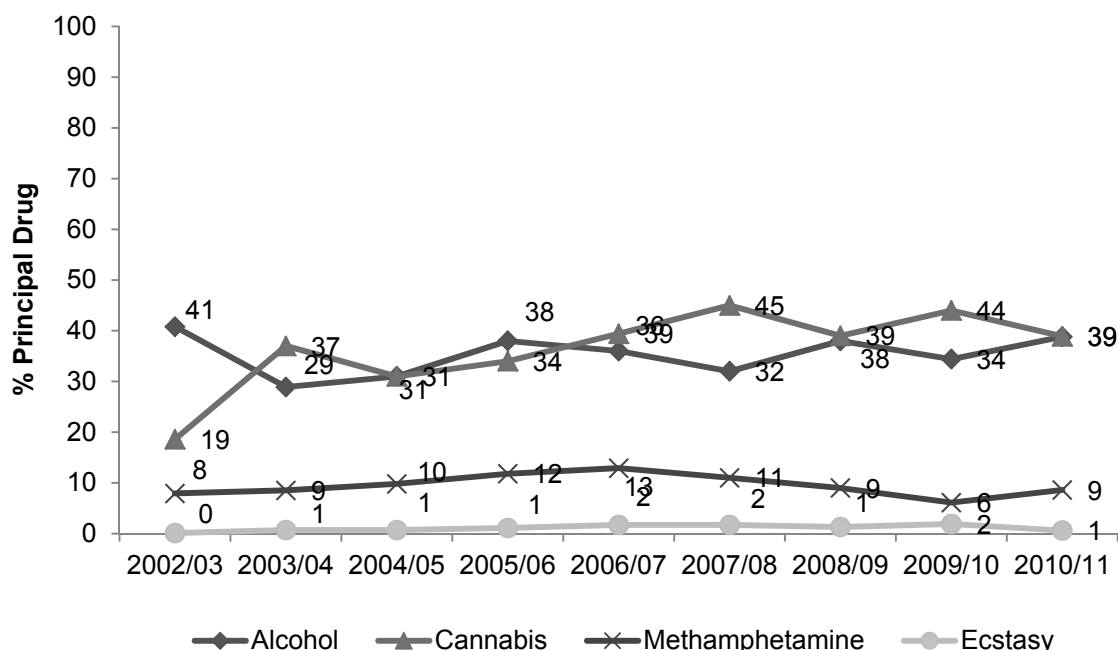
Note: Calls referring to ecstasy were not specified in the 2003/04 and 2005/06 reports.

### 6.5.2 National Minimum Data Set (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 National Minimum Data Set (NMDS) for alcohol and other drug treatment services in Tasmania (AIHW). Data for the 2011/12 financial year were not available at the time of publication.

Of all drug treatment episodes reported to the NMDS in Tasmania during 2009/10, almost two-fifths each involved cannabis (39%) or alcohol (39%) as the principal drug of concern, and less than one-tenth involved meth/amphetamine (9%). Treatment episodes in which ecstasy was the principal drug of concern accounted for 0.6% of all episodes (equating to approximately 10 treatment episodes out of a total of 1,653).

**Figure 36: Tasmanian Alcohol and Other Drug Treatment Services Minimum Data Set: Closed treatment episodes by principal drug of concern, 2002/03-2010/11**



Source: Australian Institute of Health and Welfare

## 6.6 Hospital admission indicator data

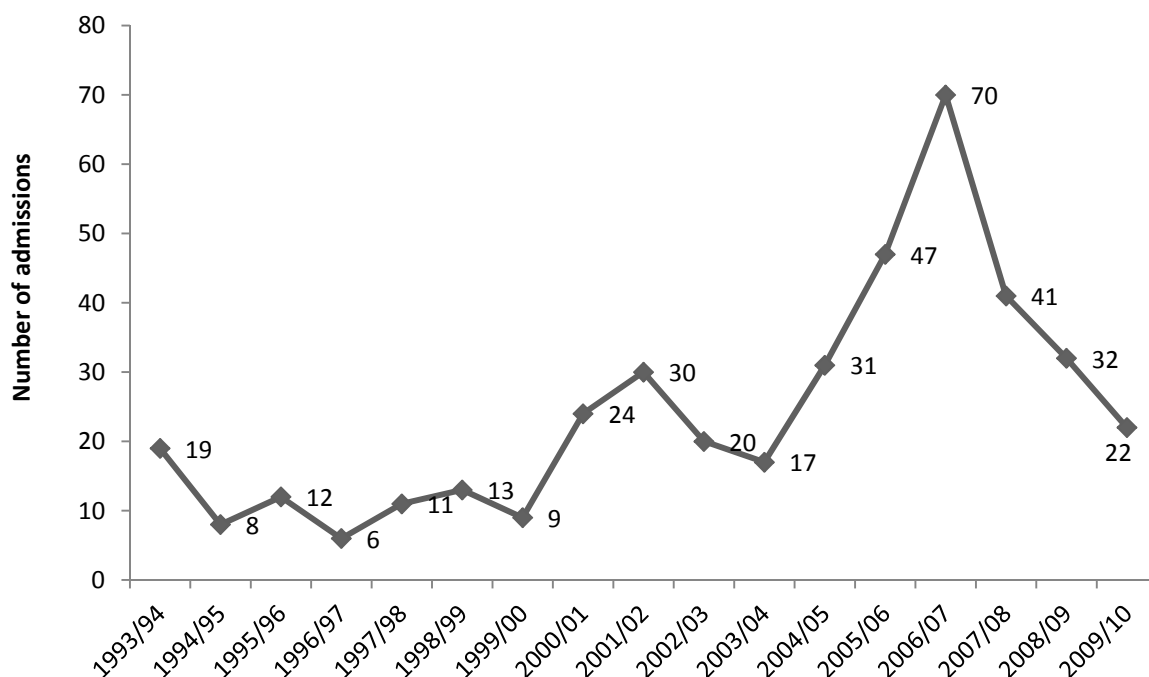
Hospital morbidity data in relation to use of drugs have been provided by the Australian Institute of Health and Welfare for the 1993/04 to 2009/10 financial year periods. Data for the 2010/11 and 2011/12 periods were unavailable at the time of publication. These data relate to Tasmanian public hospital 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 2012 IDRS report (de Graaff & Bruno, 2013). 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 per annum has increased in recent years: between 1993/04 and 1999/00 there were around 11 cases per annum (6-19) but this doubled to an average of 24 cases per annum between 2000/01 and 2004/05 (range 24-31). In the 2005/06 and 2006/07 reporting periods there were further notable increases to 47 and 70 cases per annum respectively. However, there has been a substantial reduction in cases over the 2007/08 (41 cases), 2008/09 (32 cases), and 2009/10 (22 cases) reporting periods.

When the population-adjusted rates of Tasmanian admissions are compared with those nationally (Figure 38), it is clear that Tasmanian admission rates in 2009/10 are lower than those seen nationally (83 vs. 164 admissions per million), a trend which was also seen in the 2008/09 reporting period..

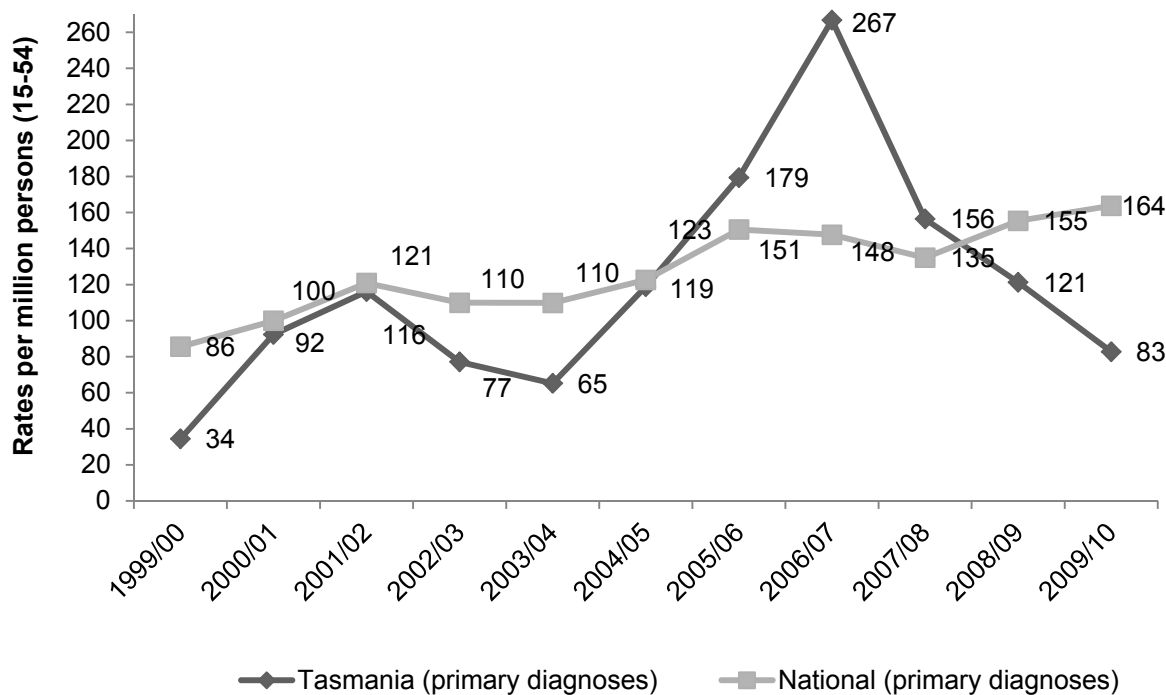
**Figure 37: Public hospital admissions (aged 15-54) in Tasmania where cannabis use was noted as the primary factor contributing to admission, 1993/94-2009/10**



Source: Australian Institute of Health and Welfare (Roxburgh & Burns, in press)

Note: 2010/11 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, 1999/00-2009/10**



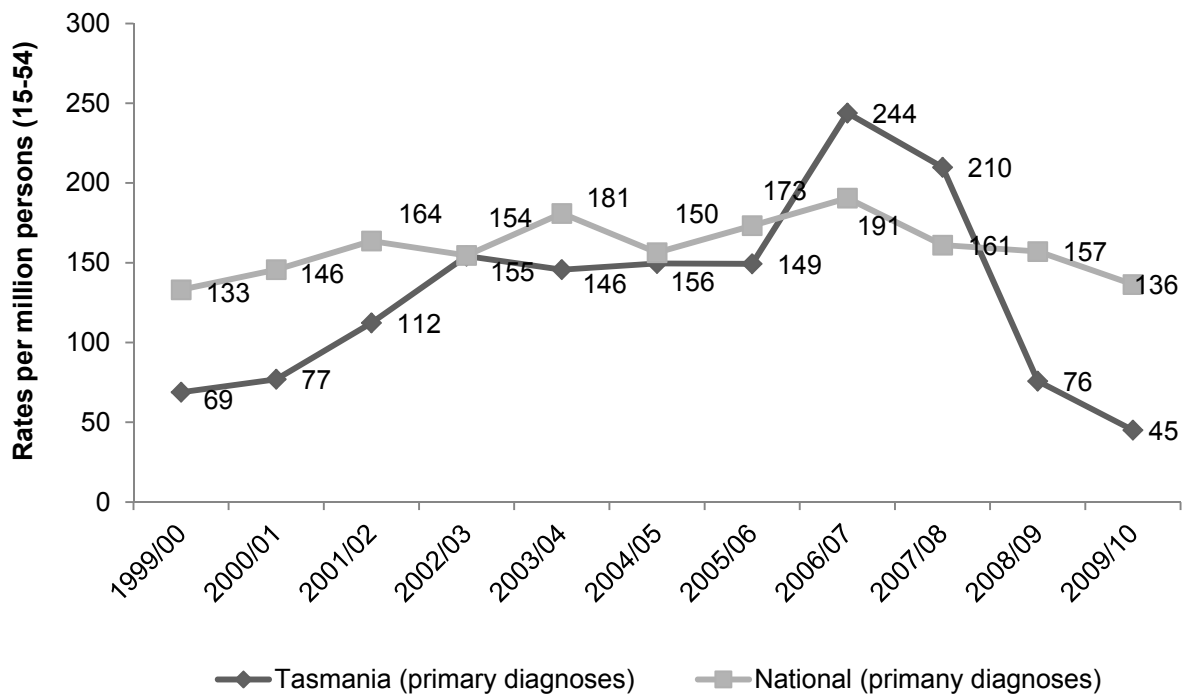
Source: Australian Institute of Health and Welfare (Roxburgh & Burns, in press)

Note: 2010/11 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 below. Both local and national admission rates increased steadily between 1999/00 and 2001/02, began to plateau in 2002/03 (national) and 2003/04 (Tasmania), and remained relatively stable up until the 2005/06 period. In 2006/07 there was a substantial increase in the Tasmanian admission rate, with a level considerably higher than the national figure reported in both the 2006/07 and 2007/08 reporting periods. In 2008/09 there was a substantial reduction in Tasmanian admissions, with a rate well below the national admission rate observed for this period (76 vs. 157 admissions per million population). This disparity was also observed in 2009/10 (45 vs. 136 admissions per million population), along with decreased rates of admissions both nationally and in Tasmania.

**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 1999/00-2009/10**



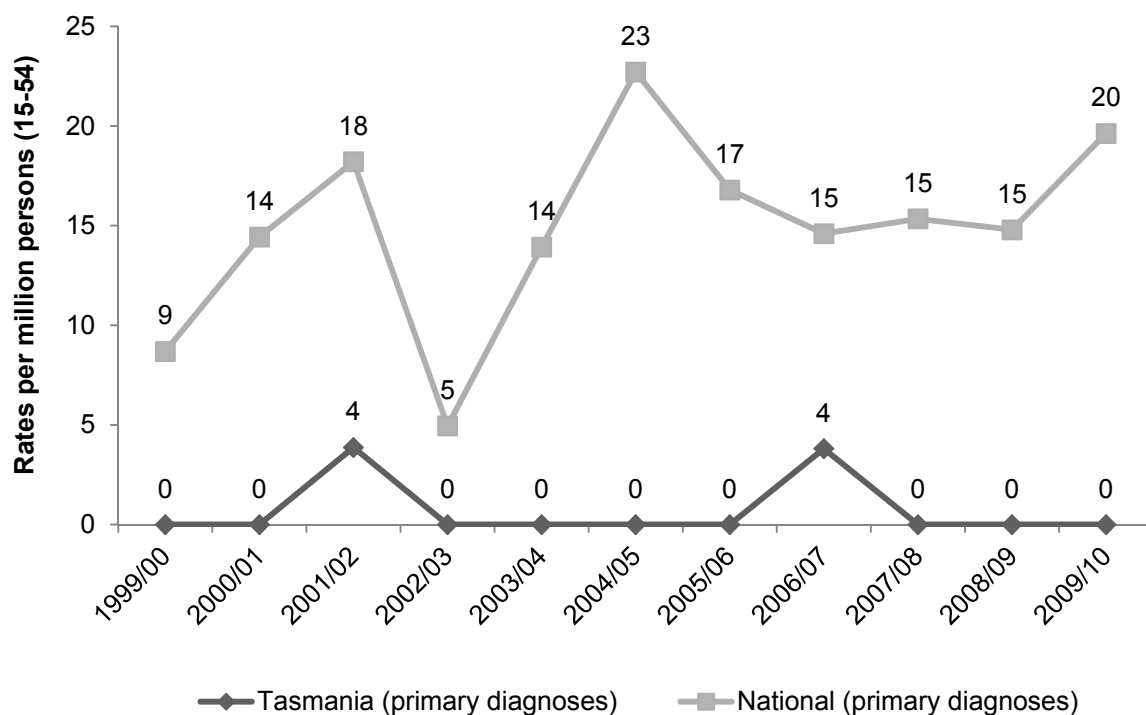
**Source: Australian Institute of Health and Welfare (Roxburgh & Burns, in press)**

Note: 2010/11 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 2009/10, with no cases noted in Tasmania between the 2007/08 and 2009/10 reporting periods.

**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, 1999/00-2009/10**



**Source: Australian Institute of Health and Welfare (Roxburgh & Burns, in press)**

Note: 2010/11 data not available at the time of publication



## 7.0 RISK BEHAVIOUR

### Summary:

- **Injecting drug use.** Less than one-tenth (6%) of the 2012 REU sample had recently used substances intravenously. This was reported on a median frequency of 7.5 days (range 1-35) during the last six months or just over monthly on average. Methamphetamine, ecstasy, other opioids, and pharmaceutical stimulants were the most common drug injected in the last six months. Sharing of needles and equipment was relatively uncommon.
- **Blood-borne viral infections.** Three-fifths (64%) of the 2012 REU sample had been vaccinated for hepatitis B and one-third had been tested for hepatitis C (35%), or for HIV (35%).
- **Sexual risk behaviour.** Three-fifths (60%) of REU reported penetrative sex with a casual partner during the six months preceding the interview and almost three-fifths (58%) reported sex with a casual partner while under the influence of drugs, most commonly alcohol, ecstasy, or cannabis. When under the influence of drugs, only around one-quarter (26%) reported 'always' using protective barriers with a casual partner and one-tenth (12%) 'never' used protective barriers. One-half (50%) 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.
- One-quarter of the sample (28%) had never had a sexual health check-up. A majority (78%) of the sample had never been diagnosed with a STI and the remainder had been diagnosed in the last year (5%) or more than a year ago (16%). The most commonly diagnosed STI was Chlamydia (91%).
- **Drug driving.** Of those who had driven a car, almost one-half (47%) reported driving at a time when they perceived themselves to be over the legal alcohol limit during the last six months, and one-half (47%) reported driving within an hour of taking illicit drugs in the last six months. Most commonly, participants reported driving under the influence of cannabis, ecstasy or methamphetamine powder.
- The proportion of REU reporting DUI of ecstasy and methamphetamine has gradually declined since 2006 but a reversal of this trend was noted in 2012. DUI of cannabis has remained relatively stable over time but has increased over the past two years.
- **Alcohol Use Disorders Identification Test (AUDIT).** One-third (33%) 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 2011 (36%) but significantly greater than the proportion categorised in zone 4 in the two years prior to this (18-21%). A further 26% scored in zone 3 (harmful or hazardous drinking), one-third (33%) scored in zone 2 (alcohol use in excess of low-risk guidelines<sup>7</sup>), and just 8% scored in zone 1 (a level reflecting low-risk drinking or abstinence).
- **Binge drug use.** One-third (31%) had recently 'binged' on ecstasy or related drugs (a continuous period of use for more than 48 hours without sleep), on a median of 2 occasions (range 1-24) in the last six months. Substances most commonly used in a binge session of use were alcohol (94%), ecstasy (87%), energy drinks (65%), cannabis (55%), methamphetamine (powder 48%; base 3%; crystal 13%), and LSD (32%).

<sup>7</sup> 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.

## 7.1 Injecting drug use

One-tenth (12%) of the 2012 REU participants had used substances intravenously at some stage of their lives (Table 52), which is similar to the proportion among previous REU cohorts (8-22%). The median age of first injection was 19.5 years (range 15-30). A significantly greater proportion of males (20%) relative to females (2%) and 'older' (23%) relative to 'younger' (4%) participants reported lifetime injection.

Less than one-tenth (6%) of the 2012 sample (all male) 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%).

**Table 52: Injecting drug use among REU, 2004-2012**

	2004 n=100	2005 n=100	2006 n=100	2007 n=100	2008 n=100	2009 n=100	2010 n=100	2011 n=75	<b>2012 n=100</b>
Ever injected (%)	15	19	18	10	15	14	8	22	<b>12</b>
Age first injected (range)	n/a	18 (16-29)	18 (15-33)	18 (14-29)	20 (16-31)	20 (17-28)	19 (17-23)	19 (16-23)	<b>19.5 (15-30)</b>
Injected last 6 months	9	8	9	6	7	12	3	13	<b>6</b>

Source: EDRS interviews

### 7.1.1 Lifetime injecting drug use and context to initiation

Table 53 shows the drugs ever injected and drug first injected for those reporting intravenous use of drugs at some stage of their life (n=12).

Over one-half (58%) of lifetime injectors had first injected methamphetamine (50% powder, 8% base), one-quarter (25%) had first injected heroin, and 17% had first injected ecstasy.

Lifetime injection of methamphetamine (67% any form, 58% powder, 17% base, 33% crystal), heroin (67%), and other opioids (50%) was most common, followed by ecstasy (33% pills, 25% powder, 33% capsules), cocaine (33%), methadone (25%), pharmaceutical stimulants (25%), and LSD (25%).

**Table 53: Injecting drug use history among REU injectors, 2012**

	Ever injected (%) n=12	First drug injected (%) n=12
Methamphetamine (any form)	67	58
Methamphetamine powder	58	50
Methamphetamine base	17	8
Crystal methamphetamine	33	-
Pharmaceutical stimulants	25	-
Ecstasy pills	33	17
Ecstasy powder	25	-
Ecstasy capsules	33	-
Heroin	67	25
Methadone	25	-
Buprenorphine	8	-
Cocaine	33	-
LSD	25	-
Ketamine	8	-
MDA	8	-
Other opioids*	50	-
Benzodiazepines	17	-
Alcohol	8	-
Over-the-counter codeine	17	-

**Source: EDRS interviews**

\* Includes opium, morphine, and pethidine

### 7.1.2 Recent injecting drug use and injecting risk behaviours

Less than one-tenth (6%) of the 2012 sample had injected a drug in the six months prior to the interview. Table 54 shows that the most commonly injected drugs in the last six months were methamphetamine (33% powder, 17% base, and 17% crystal), ecstasy (33%) and other opioids (25%). The frequency of injection for each drug was variable and ranged from one occasion to three times a month within the preceding six months.

**Table 54: Recent injecting drug use patterns (recent injectors) among REU, 2012**

	% injected last 6 months n=6	Median days injected last 6 months* (range)	% last drug injected n=6
Methamphetamine powder	33	3 (1-12)	-
Methamphetamine base	17	2 (1-3)	17
Crystal methamphetamine	17	7 (2-12)	33
Ecstasy	33	4 (2-18)	-
Methadone	-	-	-
Buprenorphine	-	-	-
Pharmaceutical stimulants	17	8 (6-10)	17
Ketamine	-	-	-
Heroin	8	4 (n=1)	-
Other opioids	25	2 (1-3)	17
Benzodiazepines	-	-	-
Alcohol	-	-	-
MDA	8	2 (n=1)	17
Cocaine	-	-	-
LSD	-	-	-

**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 7.5 occasions (range 1-35 times) in the six months preceding the interview, or over once a month on average (Table 55). Recent injectors had typically injected with close friends (100%) and had last injected at their friend's home (67%).

**Table 55: Context and patterns of injection during the last six months among REU, 2004-2012**

	2004 n=9	2005 n=8	2006 n=9	2007 n=6	2008 n=7	2009 n=12	2010 n=3	2011 n=10	2012 n=6
Median times injected (range)	20 (1-72)	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)
Usually inject with (%)									
Close friends	56	63	44	67	57	58	67	50	100
Regular sex partner	11	38	33	17	-	25	-	30	17
Casual sex partner	11	-	11	17	-	-	33	-	-
Acquaintances	11	13	22	33	14	-	33	-	17
No-one	11	13	-	17	43	25	33	10	-
Relative	-	-	11	17	-	-	-	-	-
Location last inject* (%)	n/a	n/a	n/a	n/a	n/a				
Home						50	100	60	17
Friend's home						42	-	30	67
Car						8	-	-	-
Dealer's home						-	-	10	-
Street						-	-	-	-
Public toilet						-	-	-	17
Venue toilet						-	-	-	-
Work						-	-	-	-

**Source: EDRS interviews**

\*Question not asked prior to 2009

One-half (50%) 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 3 days (range 1-5 days) during this time (Table 56).

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

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

**Table 56: Recent injecting risk behaviour and obtaining needles in last six months, 2004-2012**

	2004 n=9	2005 n=8	2006 n=9	2007 n=6	2008 n=7	2009 n=12	2010 n=3	2011 n=10	2012 n=6
Injected under influence or coming down from ERDs (%)	67	76	89	67	43	33	67	80	50
Median times injected under influence (range)*	n=6 5 2-13	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
Used needle after someone (%)	11 n=1	13 n=1	-	17 n=1	14 n=1	8 n=1	-	-	17 n=1
Shared equipment (%)									
None	44	38	56	50	43	83	67	89	67
Spoons/containers	44	13	22	17	14	8	33	-	17
Tourniquets	33	38	33	-	43	-	33	11	17
Filters	22	-	-	-	29	-	-	-	17
Water	11	38	11	17	29	8	-	-	17
Needle source (%)									
NSP	100	88	89	50	43	33	-	90	33
Chemist	11	25	56	67	71	50	100	10	33
Friend	11	25	44	50	-	17	-	-	33
Dealer	-	25	22	-	29	8	-	-	-
Partner	-	-	11	-	-	-	-	-	-
Outreach	-	-	-	-	-	-	-	10	-
Hospital	-	-	-	-	-	-	-	-	-

**Source: EDRS interviews**

\* Of those that had injected under the influence

## 7.2 Blood-borne viral infections (BBVI)

Three-fifths (59%) of the 2012 REU sample had been vaccinated for hepatitis B (Table 57). The main reason reported for hepatitis B vaccination was childhood vaccination (52%), followed by overseas travel (27%).

One-third (35%) of the sample had ever been tested for hepatitis C, with 13% of the sample having been tested in the last year (Table 57).

One-third (35%) of the sample had been tested for HIV at some stage, and 16% of the sample had been tested during the last year (Table 57).

**Table 57: BBVI vaccination, testing and self-reported status, 2004-2012**

	2004	2005	2006	2007	2008	2010	2011	2012
<b>Hepatitis B vaccination (%)</b>	n=96	n=99	n=97	n=100	n=99	n=100	n=75	<b>n=100</b>
No	44	41	44	33	35	34	23	<b>21</b>
Yes (didn't complete)	10	14	6	7	9	4	11	<b>5</b>
Yes (completed schedule)	44	30	38	49	51	50	49	<b>59</b>
Don't know	2	14	11	11	5	12	17	<b>15</b>
<b>If yes, reason (%)</b>	n=51	n=42	n=41	n=53	n=59	n=54	n=45	<b>n=64</b>
Risk (sexual)	2	12	7	9	4	-	2	<b>2</b>
Risk (IDU)	2	-	2	-	-	4	7	<b>2</b>
Going overseas	33	67	59	47	59	52	33	<b>27</b>
Vaccinated as a child	14	5	5	11	15	28	36	<b>52</b>
Don't know/can't remember	12	5	2	8	3	2	7	<b>9</b>
Working in a health setting	11	-	2	-	1	-	-	<b>-</b>
Work requirement	26	5	12	17	9	11	13	<b>6</b>
Relative's advice	16	7	5	4	-	2	-	<b>-</b>
GP's advice	11	-	-	-	1	2	-	<b>-</b>
Precautionary	26	-	2	-	1	-	-	<b>2</b>
Other	11	5	-	2	-	-	2	<b>2</b>
<b>Tested for hepatitis C (%)</b>	n=96	n=99	n=97	n=100	n=99	n=100	n=74	<b>n=100</b>
No	67	62	57	65	63	68	34	<b>59</b>
Yes (in the last year)	18	18	17	19	20	18	31	<b>13</b>
Yes (more than 1 year ago)	16	12	23	14	16	9	23	<b>22</b>
Don't know/didn't get result	-	8	4	2	1	5	12	<b>6</b>
<b>If yes, what was result (%)</b>	n=32	n=29	n=36	n=32	n=36	n=27	n=40	<b>n=35</b>
Positive	-	3	8	3	6	-	5	<b>-</b>
Negative	97	90	86	97	92	100	93	<b>97</b>
Don't know/didn't get result	3	7	6	-	3	-	3	<b>3</b>
<b>Tested for HIV (%)</b>	n=96	n=99	n=97	n=100	n=98	n=100	n=74	<b>n=100</b>
No	64	65	60	64	63	59	39	<b>61</b>
Yes (in the last year)	22	19	20	21	20	22	37	<b>16</b>
Yes (more than 1 year ago)	15	15	20	13	15	18	23	<b>19</b>
Don't know/didn't get result	-	1	1	2	-	1	1	<b>4</b>
<b>If yes, what was result (%)</b>	n=35	n=33	n=37	n=34	n=36	n=40	n=44	<b>N=34</b>
Positive	3	-	-	-	-	-	-	<b>-</b>
Negative	97	94	100	100	97	98	98	<b>100</b>
Don't know/didn't get result	-	6	-	-	3	3	2	<b>-</b>

**Source: EDRS interviews**

Note: BBVI questions were not asked in 2009

### **7.3 Sexual risk behaviour**

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

Three-fifths (60%) of the 2012 REU sample reported having penetrative sex with a casual partner during the six months preceding the interview (Table 58). The number of casual sexual partners was typically one to five partners during this time.

Three-fifths (58%) of the sample had engaged in penetrative sex with a casual partner while under the influence of ecstasy and related drugs during the last six months (Table 58), with almost two-fifths (40%) doing so on six or more occasions. These respondents most commonly reported having sex under the influence of alcohol (64%), followed by ecstasy (55%), cannabis (41%), or methamphetamine powder (14%).

Of those who had sex with a casual partner under the influence of drugs in the preceding six months, one-tenth (12%) reported that they never used protective barriers (Table 58). One-quarter reported that they always used protective barriers (26%) and the remainder reported inconsistent use of protective barriers.

One-half (50%) of those who reported sex with a casual partner 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: being on the contraceptive pill (24%), it was not mentioned (14%), too intoxicated (17%), lack of availability (17%), personal preference (10%) and confidence in lack of risk (3%).

Several KE (n=3) also indicated that risky sexual behaviour was common among the group of REU that they were familiar with.

Over one-quarter (28%) of the 2012 REU sample had never had a sexual health check-up (Table 58). The majority of the sample (78%) had never been diagnosed with a sexually transmitted infection (STI) and smaller proportions had been diagnosed with an STI in the last year (5%) or more than a year ago (16%). The most commonly diagnosed STI was Chlamydia (91%) followed by herpes (5%), Gonorrhoea (5%) and thrush (5%).

**Table 58: Prevalence of sexual activity, protective barrier use, and sexual health among REU, 2005-2012**

	2005 n=100	2006 n=100	2007 n=98	2008 n=99	2009 n=99	2010 n=100	2011 n=75	2012 n=100
<b>Casual sex last 6 mths (%)</b>	69	45	54	60	54	60	64	<b>60</b>
<b>No. casual partners*</b>	n/a	n/a	n/a	n=59	n=54	n=60	n=48	<b>n=60</b>
One partner (%)				18	33	25	23	<b>12</b>
Two partners (%)				23	20	28	21	<b>22</b>
Three-five partners (%)				41	35	35	38	<b>48</b>
Six-ten partners (%)				14	9	8	15	<b>12</b>
More than ten partners (%)				3	2	3	4	<b>7</b>
<b>Casual sex with drugs/alcohol (%)</b>	49	34	40	47	49	55	59	<b>58</b>
<b>Number of times#</b>	n/a	n/a	n/a	n=52	n=49	n=55	n=44	<b>n=58</b>
Once (%)				10	18	9	2	<b>5</b>
Twice (%)				19	14	15	18	<b>17</b>
Three-five times (%)				40	16	38	16	<b>38</b>
Six-ten times (%)				12	29	16	27	<b>21</b>
More than ten times (%)				19	22	22	36	<b>19</b>
<b>Drugs used last time#</b>	n/a	n/a	n/a	n=52	n=49	n=55	n=44	<b>n=58</b>
Ecstasy (%)				65	67	53	48	<b>55</b>
Cannabis (%)				19	20	24	34	<b>41</b>
Alcohol (%)				98	90	91	89	<b>64</b>
Meth. powder (%)				10	6	4	14	<b>14</b>
Meth. base (%)				-	4	-	-	<b>-</b>
Crystal meth (%)				-	4	-	-	<b>3</b>
Cocaine (%)				2	6	7	2	<b>2</b>
LSD (%)				-	2	4	9	<b>7</b>
GHB (%)				-	-	-	-	<b>-</b>
Amyl nitrite (%)				6	4	-	2	<b>-</b>
Nitrous oxide (%)				-	4	2	-	<b>-</b>
Methadone (%)				-	4	-	5	<b>-</b>
Benzodiazepines (%)				2	4	-	-	<b>2</b>
Mushrooms (%)				-	4	-	-	<b>3</b>
Pharm. stimulants (%)				-	2	-	2	<b>-</b>
MDA (%)				-	-	2	5	<b>-</b>
Mephedrone (%)				-	-	13	-	<b>-</b>
Methylone (%)				-	-	2	-	<b>-</b>
Heroin (%)				-	-	-	2	<b>-</b>
Other (%)				-	-	-	-	<b>2</b>
<b>Protective barrier use under influence#</b>	n=48	n=32	n=37	n=52	n=49	n=55	n=43	<b>n=58</b>
Always (%)	44	34	24	31	20	22	26	<b>26</b>
Never (%)	19	9	22	15	37	33	19	<b>12</b>
Inconsistent or rare use (%)	56	66	76	69	43	46	56	<b>62</b>
<b>Ever sex health check (%)</b>	n=96	n=100	n=95	n=99	n=99	n=100	n=75	<b>n=100</b>
No	53	51	37	38	33	29	20	<b>28</b>
Yes (in the last year)	33	32	40	40	45	52	56	<b>43</b>
Yes (more than 1 year ago)	14	17	22	21	21	19	24	<b>29</b>
Don't know	-	-	1	-	-	-	-	<b>-</b>
<b>Ever diagnosed STI (%)</b>	n/a	n=98	n=95	n=99	n=98	n=100	n=74	<b>n=100</b>
No		92	90	85	81	78	81	<b>78</b>
Yes (in the last year)		5	6	6	8	6	1	<b>5</b>
Yes (more than 1 year ago)		2	4	9	11	16	18	<b>16</b>
Don't know		1	-	-	-	-	-	<b>1</b>

**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



## 7.4 Driving risk behaviour

Seventy-five of the 100 REU interviewed in 2012 had driven a car during the six months preceding the interview (Table 59). Almost one-half (47%) 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 2 times (range 1-14) in the last six months. Two-fifths (40%) had been random breath tested (once or more) during the previous six months; and 10% were over the legal blood alcohol limit at least once during this time.

Almost one-half (47%) 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 2011 (40%). Of those who had driven under the influence (DUI) of drugs, the median number of times in the last six months was 30 (range 1-180) compared to fewer in previous years. One-tenth (11%) reported that they had been saliva tested for drugs by police during the last six months and none reported a positive saliva test during this time.

Of those who had driven under the influence in the last six months, the drugs most commonly used were cannabis (83%), ecstasy (51%), and methamphetamine (powder 46%, base 9%, crystal 3%).

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). There was a significant decline in the proportion reporting DUI of ecstasy and methamphetamine between 2006 and 2011 with a possible reversal of this trend seen in 2012. DUI of cannabis has remained relatively stable over time with an increase noted over the past two years.

Those that 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=28) had done so on an average of 2.4 hours after taking the drug (range 1-6). A majority perceived that their driving had been 'slightly impaired' (36%) or that it had had 'no impact' on their driving (32%), and a further 29% perceived that their driving had been improved. Sample sizes in relation to ecstasy and methamphetamine were too small for meaningful interpretation.

**Table 59: Driving under the influence (DUI) of alcohol and other drugs among REU who had driven a car in the last six months, 2005-2012**

<b>Variable</b>	<b>2005 n=80</b>	<b>2006 n=81</b>	<b>2007 n=76</b>	<b>2008 n=86</b>	<b>2009 n=87</b>	<b>2010 n=88</b>	<b>2011 n=65</b>	<b>2012 n=75</b>
Driven over legal alcohol limit last 6 mths (%)	58	48	37	49	59	48	37	<b>47</b>
Median times driven over legal limit last 6 mths (range) <sup>#</sup>	n=46 4 1-24	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	<b>n=35 2 1-14</b>
% breath tested last 6 mths If tested, % over limit (≥1)	n/a	n/a	38 7	40 -	56 15	61 7	50 -	<b>40 10</b>
% driven soon after taking any drug in last 6 mths	55	78	51	63	51	39	40	<b>47</b>
Median times DUI of drugs in last 6 mths (range)*	n/a	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	<b>n=35 30 1-180</b>
% saliva tested last 6 mths If tested, % tested positive	n/a	n/a	n/a	2 -	2 -	5 n=1	- -	<b>11 -</b>
Drugs DUI last 6 mths (%) <sup>*^</sup>	n=44	n=63	n=39	n=54	n=44	n=34	n=26	<b>n=35</b>
Cannabis	68	52	46	52	48	59	81	<b>83</b>
Ecstasy	91	89	85	83	71	62	27	<b>51</b>
Meth. powder	34	27	33	13	7	12	23	<b>46</b>
Meth. base	9	24	8	4	7	6	4	<b>9</b>
Crystal meth	2	10	-	2	9	-	4	<b>3</b>
Benzodiazepines	2	5	3	6	5	-	4	-
Psychedelic mushrooms	-	8	8	6	5	6	4	-
LSD	5	2	10	13	11	9	8	<b>11</b>
Amyl nitrite	2	-	3	4	-	-	-	-
Nitrous oxide	16	5	5	4	7	-	-	-
Cocaine	5	6	5	2	2	3	-	<b>9</b>
Ketamine	2	-	3	-	-	-	-	-
Other opioids	-	-	3	2	2	3	12	-
Pharmaceutical stimulants	-	2	-	2	-	-	-	-
GHB	2	2	-	-	-	-	-	-
Methadone	-	2	-	2	-	3	-	-
2CI/2CB/2CE	-	2	-	-	2	-	-	-
Mephedrone	-	-	-	-	-	12	-	-
Methylone	-	-	-	-	-	3	-	-
Heroin	-	-	-	-	-	-	8	-

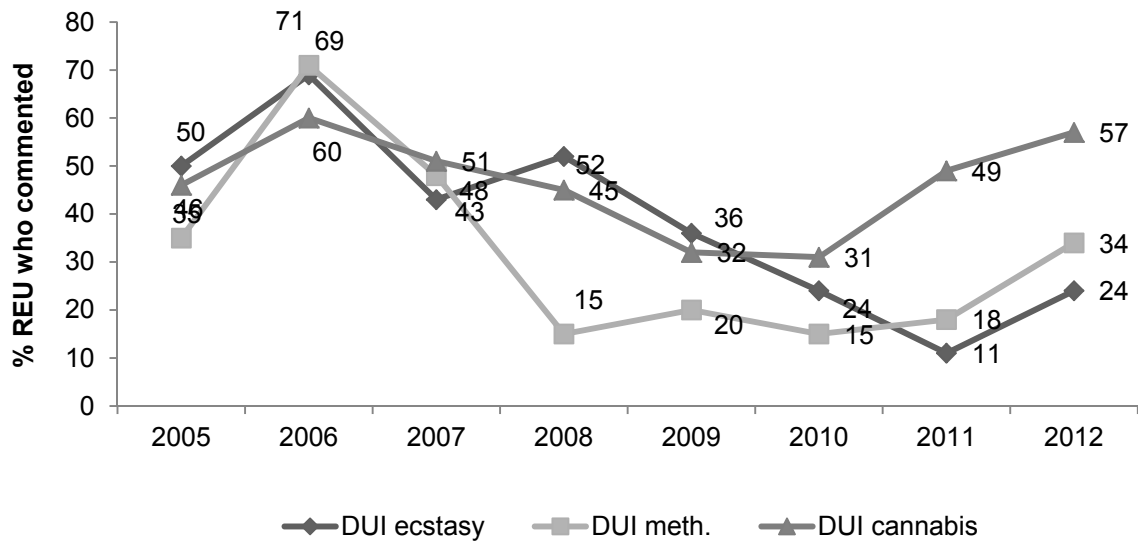
**Source: EDRS interviews**

<sup>#</sup> Of those who had driven while over the legal limit of alcohol in the last 6 months

<sup>\*</sup> Of those who had driven under the influence of drugs in the last 6 months

<sup>^</sup> 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, 2005-2012**



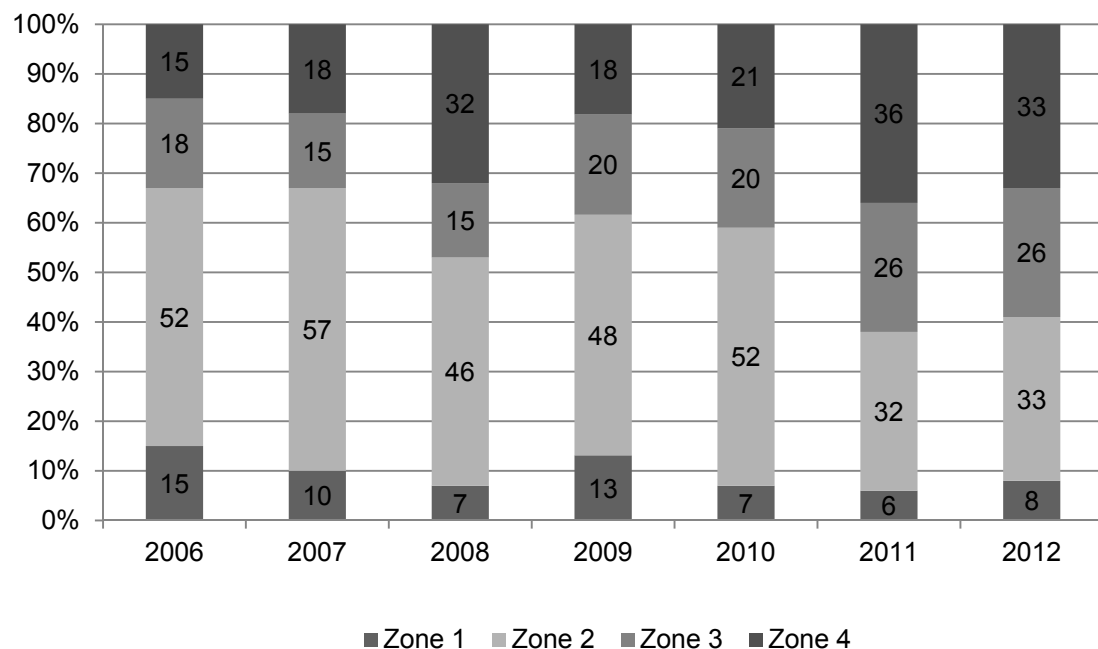
Source: EDRS interviews

## 7.5 Alcohol Use Disorders Identification Test (AUDIT)

REU completed the Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993). 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. 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 16.9 (median=16.5; range 0-30, SD=6.5). Of those REU who completed the AUDIT (n=100), a large majority (92%) scored 8 or more, a level at which alcohol intake may be considered hazardous. The proportion of 'younger' participants with scores of 8 or more was significantly greater than the proportion of 'older' participants (98% vs. 84,  $\chi^2=6.68$ ,  $p=.01$ ). 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 2012. In 2012, just 8% of the REU that completed the AUDIT scored in zone 1 (a level reflecting low-risk drinking or abstinence). One-third (33%) scored in zone 2 (alcohol use in excess of low-risk guidelines<sup>8</sup>), a further 26% scored in zone 3 (harmful or hazardous drinking) and 33% (95%CI 25-43%) 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 2012 was similar to the proportion in 2011 (36% 95%CI 26-48%) but significantly greater than the proportion of the 2010 sample (21%, 95%CI 14-30%).

**Figure 42: Proportion of REU categorised with each AUDIT risk zone, 2006-2012**



Source: EDRS interviews

<sup>8</sup> 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.

## 7.6 Binge drug use

Table 60 shows that almost one-third (31%) of the 2012 REU sample had recently 'binged' on ERDs (used for more than 48 hours continuously without sleep). Those that had recently binged had done so on a median of 2 occasions (range 1-24) during the six months preceding the interview. The median length of the longest period of continuous use during this time was 2 days (range 2-12 days). Of those who had recently 'binged', the substances used most commonly during any one binge session of use were ecstasy (87%), alcohol (94%), energy drinks (65%), cannabis (55%), methamphetamine (powder 48%; base 3%; crystal 13%), and LSD (32%). A majority (84%) reported use of tobacco in a binge session of use. Among those who had used alcohol in a binge session of use, a majority (97%) reported typical use of more than five standard drinks in a binge session.

**Table 60: Binge drug use among REU, 2006-2012**

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

**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.** Around one-quarter (26%) of the 2012 REU sample reported taking part in any criminal activity in the last month. The most common crimes were drug dealing (18%) and property crime (12%). Over one-tenth (14%) 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 had been 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. In 2010/11 and 2011/12 a substantial reduction in both the number of arrests and the number of seizures was noted relative to recent years.
- The number of methamphetamine-related arrests substantially increased 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). The number of methamphetamine-related seizures increased gradually between 1999/00 and 2006/07. Since this time the number of seizures has reduced or remained stable; however, an increase in the number of seizures was noted in both 2010/11 (153 seizures) and 2011/12 (256 seizures) relative to the two years prior to this (111-115 seizures).
- Since 2006/07 the number of cannabis-related arrests has remained relatively stable while the number of seizures has increased gradually with a slight decline observed in 2011/12 with 2,576 seizures reported compared to 2,875 in 2010/11.
- **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 was a further reduction in total diversions/cautions in 2011/12 relative to 2010/11 (869 vs. 1,132).
- **Drug-related charges in Tasmanian courts.** The number of individuals before the Hobart Magistrates Court in relation to drug offences in 2011/12 was stable or slightly lower in comparison to 2010/11. Data prior to 2010/11 is not directly comparable due to the introduction of a new data coding system (ASOC, 2008). The number of individuals incarcerated at Hobart Prison in relation to drug-related offences was stable in 2011/12 relative to 2010/11 (81 vs. 80).

## 8.1 Reports of criminal activity among REU

Just over one-quarter (26%) of the 2012 REU sample self-reported engaging in some type of crime within the last month (Table 61).

Almost one-fifth (18%) reported dealing drugs for cash profit, with the majority doing so on a less than weekly basis in the last month (n=10), and few (n=5) doing so on a weekly basis or more often (n=3).

Just over one-tenth (12%) 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=10), with few committing property crime weekly (n=1), or more frequently (n=1).

Smaller proportions of the sample reported committing fraud (6%) or violent crime (2%) during the last month.

More than one-tenth of the sample (14%) had been arrested during the 12 months preceding the interview. These participants had been arrested for a variety of offences (see Table 61). Few participants had been arrested for alcohol or drug-related offences.

**Table 61: Criminal activity reported by REU, 2004-2012**

	2004	2005	2006	2007	2008	2009	2010	2011	<b>2012</b>
<b>n</b>	100	100	100	100	100	100	100	75	<b>100</b>
<b>Any criminal activity in last month (%)</b>	19	15	26	28	28	24	24	28	<b>26</b>
Drug dealing	16	8	21	24	24	18	15	11	<b>18</b>
Property crime	6	4	5	11	6	11	8	15	<b>12</b>
Fraud	-	3	3	1	2	1	-	5	<b>6</b>
Violent crime	-	2	1	5	2	1	5	3	<b>2</b>
<b>Arrested last 12 months (%)</b>	3	9	8	10	6	10	13	16	<b>14</b>
Property crime	3	1	1	1	-	3	-	4	<b>3</b>
Drug use/possession	-	1	1	1	1	3	2	3	<b>-</b>
Violent crime	-	1	1	2	-	1	-	1	<b>1</b>
Dealing/trafficking	-	2	-	-	-	1	1	-	<b>-</b>
Driving offence	-	-	-	-	-	2	-	1	<b>-</b>
DUI alcohol	-	2	2	3	2	3	4	1	<b>3</b>
DUI drugs	-	1	-	-	-	1	-	-	<b>-</b>
Other reason	-	2	2	5	4	4	8	9	<b>8</b>

**Source: EDRS interviews**

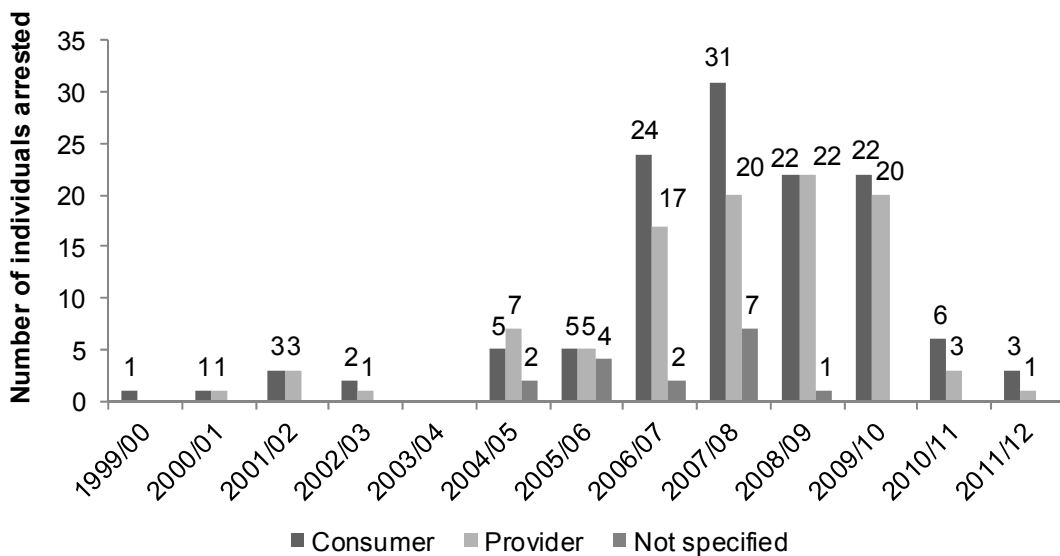
## 8.2 Drug-related arrests and seizures made by Tasmania Police

### 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 2011/12. 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 there was a substantial decrease in the number of both consumer and provider arrests relative to recent years and this trend continued in 2011/12 with just 4 ecstasy-related arrests reported (3 consumer, 1 provider).

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. In 2011/12 there was a further reduction in the number of seizures and the total number of tablets seized with a total of 45 tablets/capsules seized across just 5 seizures. There were also two seizures of ecstasy powder totalling 11.9 grams in 2011/12.

**Figure 43: Number of police incidents recorded for ecstasy possession/use (consumers) and deal/traffic (providers), 1999/00-2011/12**

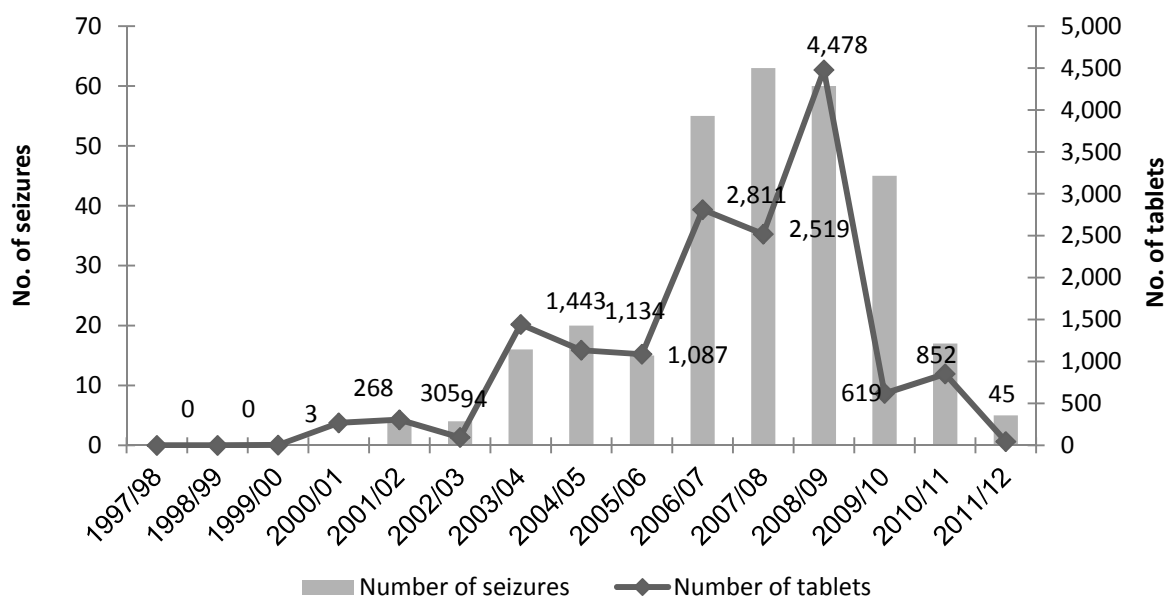


**Source: State Intelligence Services, Tasmania Police**

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



**Figure 44: Total number of tablets suspected to contain ecstasy seized by Tasmania Police, 1997/98-2011/12**



**Source: State Intelligence Services, Tasmania Police**

Note: Number of seizures were 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 62). 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 (156 arrests). This increase was largely attributable to an increase in the number of consumer arrests, with 97 arrests reported compared to 56 in 2010/11.

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). In the years following, the number of methamphetamine seizures either decreased or remained stable, but in 2010/11 there was an increase in both the weight and number of seizures relative to 2009/10, and a substantial increase in the number of seizures was reported in 2011/12 compared to 2010/11 (256 vs. 153 seizures). In addition to the 256 seizures coded in grams shown in Figure 45, there were 7 seizures totalling 118 tablets, and 8 seizures totalling 71 capsules.

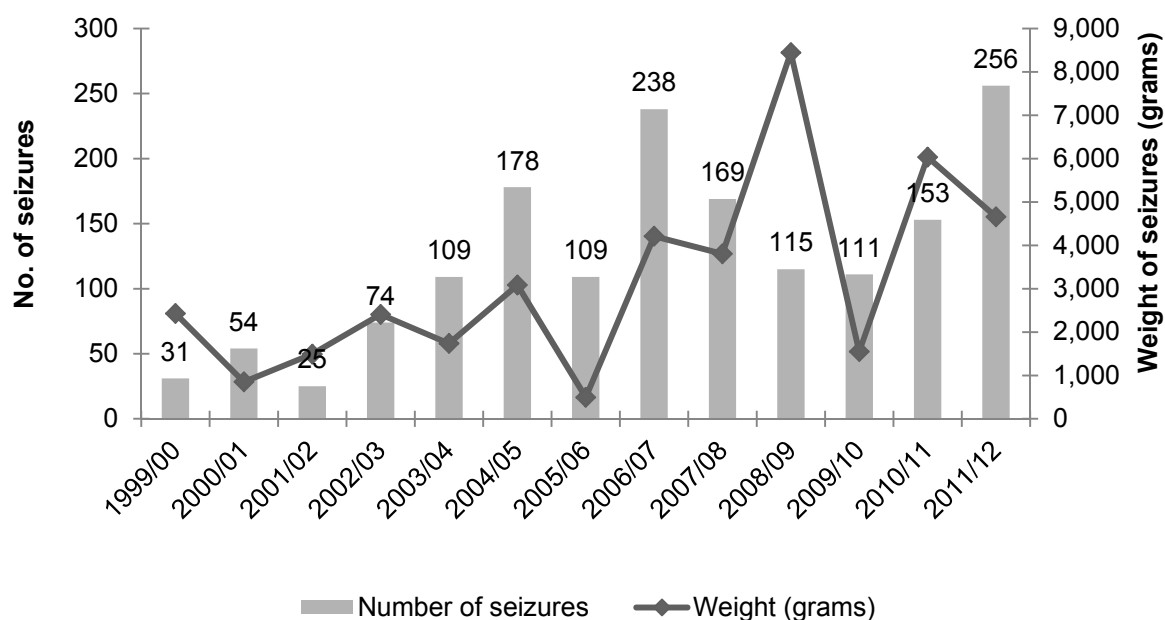
**Table 62: Consumer and provider arrests for methamphetamine and related substances, 1999/00-2011/12**

	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
<b>Consumer</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>	<b>n</b>
Female	4	9	18	8	10	9	10	24	26	10	16	12	22
Male	14	51	53	34	21	34	33	84	81	37	61	44	75
Unknown	2	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>20</b>	<b>60</b>	<b>71</b>	<b>42</b>	<b>31</b>	<b>43</b>	<b>43</b>	<b>108</b>	<b>107</b>	<b>47</b>	<b>77</b>	<b>56</b>	<b>97</b>
<b>Provider</b>													
Female	0	1	6	2	1	3	9	14	13	7	9	5	8
Male	7	9	12	17	7	23	25	55	57	61	42	40	51
Unknown	1	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>8</b>	<b>10</b>	<b>18</b>	<b>19</b>	<b>8</b>	<b>26</b>	<b>34</b>	<b>69</b>	<b>70</b>	<b>68</b>	<b>51</b>	<b>45</b>	<b>59</b>
<b>Total Arrests</b>	<b>28</b>	<b>70</b>	<b>89</b>	<b>66</b>	<b>39</b>	<b>69</b>	<b>83</b>	<b>179</b>	<b>177</b>	<b>117</b>	<b>128</b>	<b>104</b>	<b>156</b>

**Source: Australian Crime Commission and State Intelligence Services, Tasmania Police**

Note: 2011/12 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, 1999/00-2011/12**



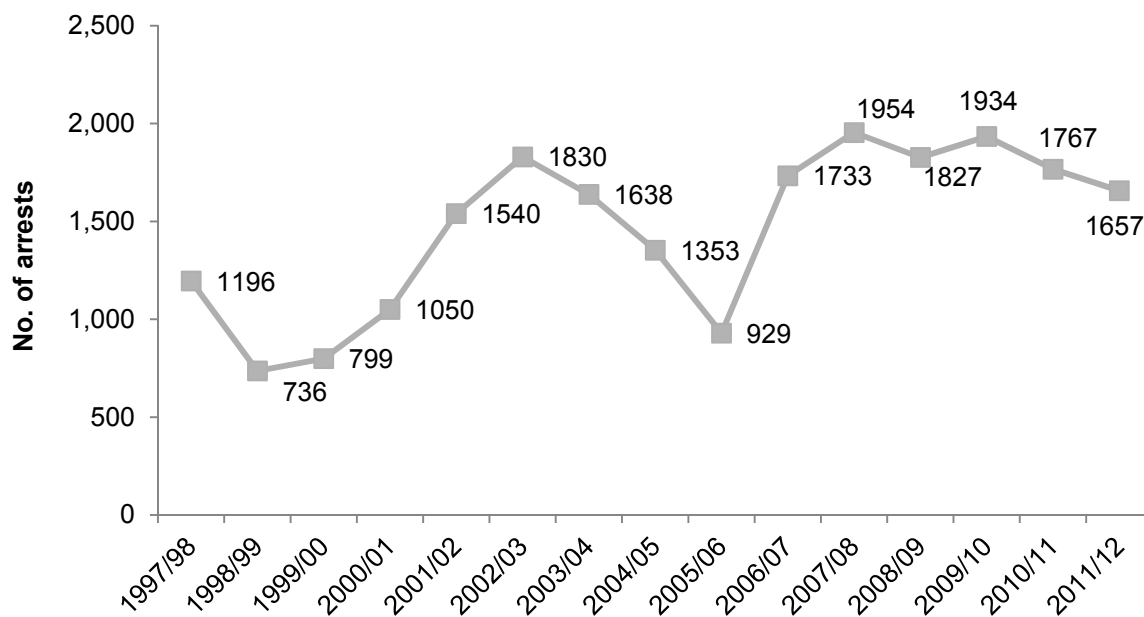
**Source: Australian Crime Commission and State Intelligence Services, Tasmania Police**

Note: Seizures for 2005/06 were only reported to the ACC for part of the financial year. 2011/12 data were provided by Tasmania Police State Intelligence Service, include only seizures weighed in grams, and are preliminary and subject to revision. In 2011/12 there were an additional 19 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 2011/12. 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 have been relatively consistent since this time, with 1,657 cases reported in 2011/12.

**Figure 46: Number of arrests (including cautions and diversions) for cannabis-related offences in Tasmania, 1997/98-2011/12**

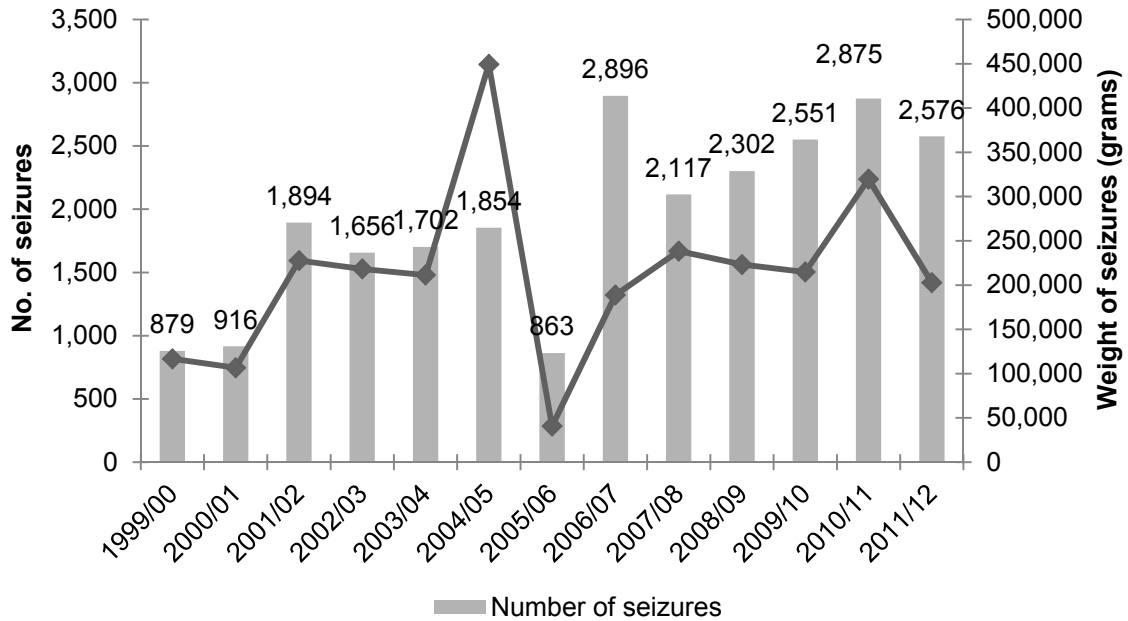


**Source: Australian Crime Commission and State Intelligence Services, Tasmania Police**

Note: 2011/12 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. \*Arrests for 2005/06 were only reported to the ACC for part of the financial year.

Figure 47 shows cannabis seizures made by Tasmania Police, between 1999/00 and 2011/12. 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 with 2,576 seizures reported compared to 2,875 in 2010/11. In addition to the seizures shown in Figure 47 for 2011/12, Tasmania Police reported 451 seizures of plants (totalling 4,980 plants).

**Figure 47: Seizures of cannabis by Tasmania Police, 1999/00-2011/12**



**Source: Australian Crime Commission 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 2011/12 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 2008/09 financial years (Table 63). In 2010/11 reporting period there was one arrest for a cocaine offence and 3 seizures totalling 28 grams. In 2011/12 there were two arrests (1 consumer and 1 provider) and 5 seizures totalling 44 grams.

**Table 63: Consumer and provider arrests for cocaine, 2000/01-2011/12**

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

**Source: Australian Crime Commission and State Intelligence Services, Tasmania Police**

Note: 2011/12 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 hallucinogens between 1999/00 and 2011/12 (Table 64). In the 2011/12 period Tasmania police reported one consumer and two provider arrests in relation to LSD. There were 5 seizure of LSD totalling 61 tabs (Table 64).

**Table 64: Consumer and provider arrests for hallucinogens, 2000/01-2011/12**

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

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

Note: 2011/12 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

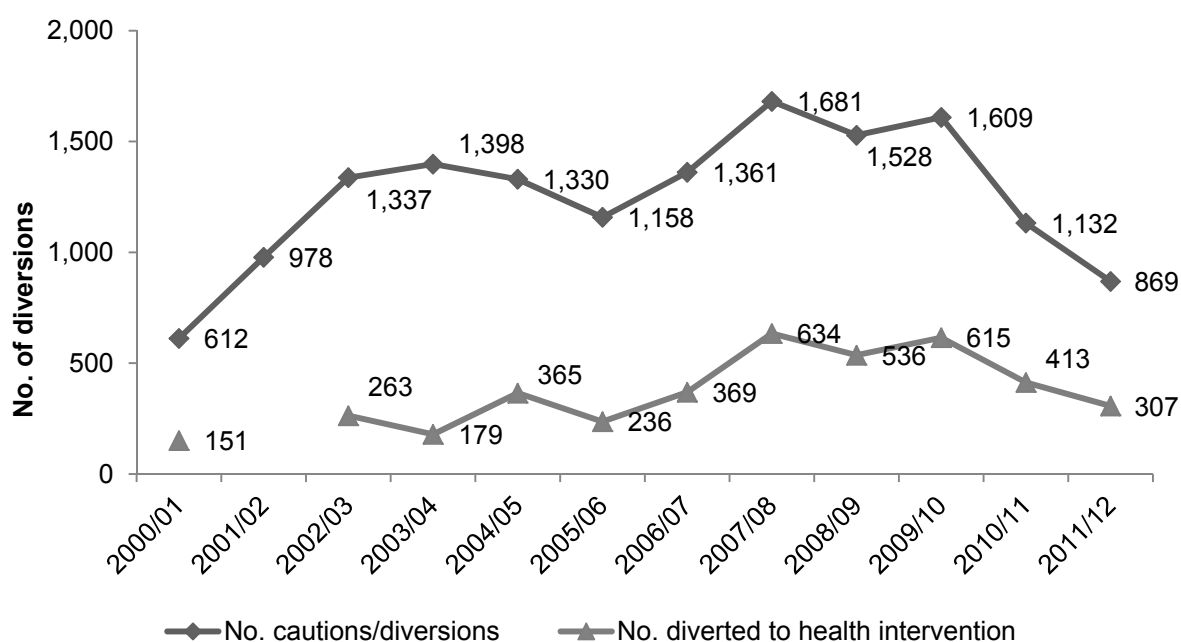
The ACC reports seizures and arrests for drugs classed as phenethylamines which includes MDMA (ecstasy) as well as 3,4-methylenedioxyethylamphetamine (MDEA), 3,4-methylenedioxyamphetamine (MDA) and paramethoxyamphetamine (PMA). Thus, there are no data from Tasmania Police that relate specifically to 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 Illicit Drug Diversion Initiative, 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 in both 2010/11 (1,132) and 2011/12 (869). A reduction was also found in the number of second- and third-level diversions (to health interventions) (413 in 2010/11 vs. 307 in 2011/12). While the majority of diversions were for cannabis-related offences, there were 5 diversions in relation to ecstasy in the 2011/12 reporting period compared to 8 in 2010/11 and 25 in 2009/10.

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.

**Figure 48: Drug diversions or cautions issued state-wide by Tasmania Police, 2000/01-2011/12**



**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 Australian Crime Commission 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

In 2010/11, the Magistrates Court introduced a new data coding system (ASOC, 2008), which means direct comparisons with data from previous years should be made with caution (Table 65, Figure 49). In 2011/12, 145 individuals (174 alleged offences) were before the court for dealing and trafficking charges; six individuals (nine alleged offences) for importing and/or exporting drugs; 115 individuals (117 alleged offences) for manufacturing and/or growing of drugs; 616 individuals (981 alleged offences) for possession and/or use of drugs; and 198 individuals (206 alleged offences) for ‘other drug offences’. These figures are stable or slightly lower relative to 2010/11.

The number of individuals incarcerated at Hobart Prison in relation to drug offences in 2011/12 (80 individuals) was similar to the number in 2010/11 (81), and the number of offences among those incarcerated was greater in 2011/12 relative to 2010/11 (237 vs. 183 offences) (Table 65).

Data relating to drug-related offences before the Supreme Court were not available for inclusion in the present report.

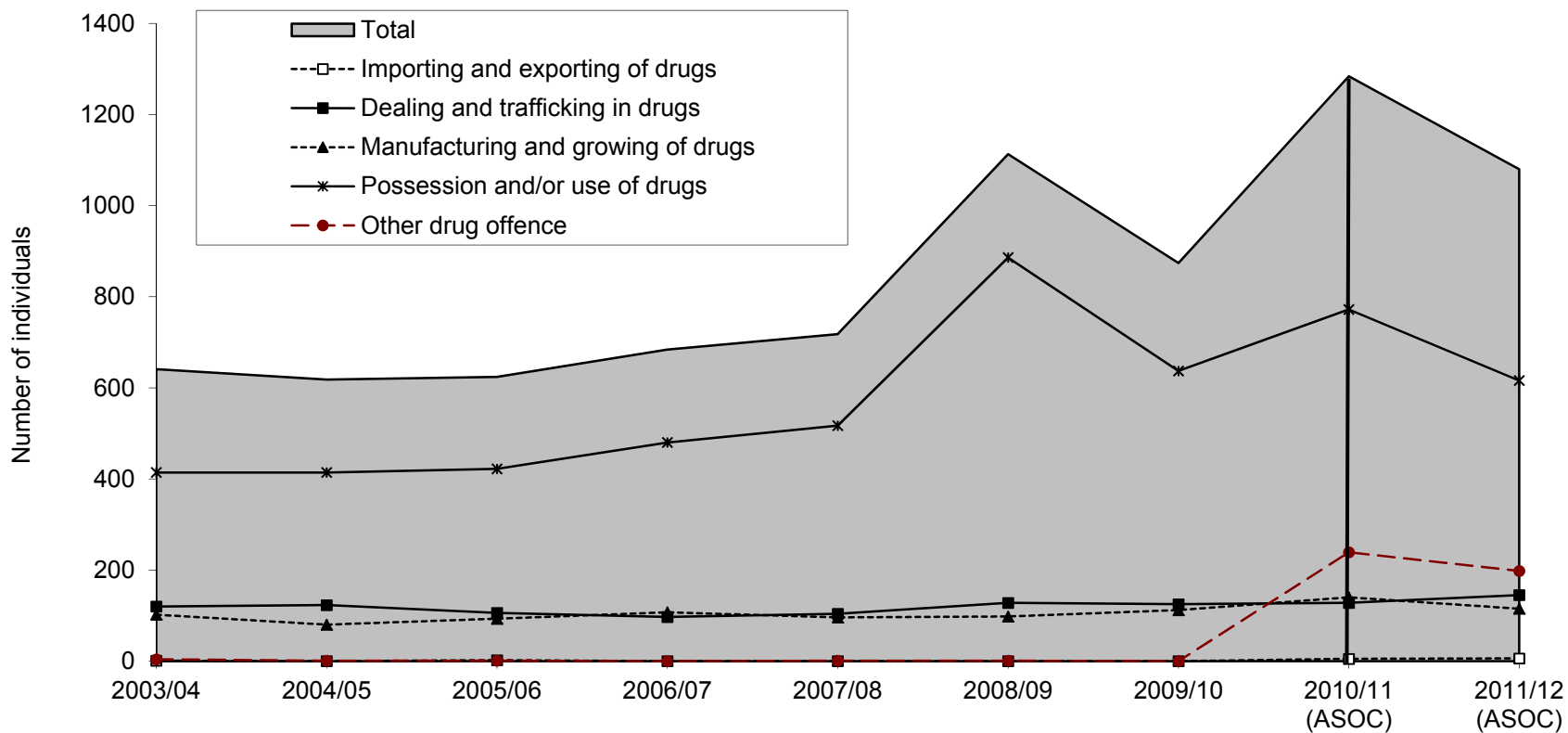
**Table 65: Number of individuals before Tasmanian courts or imprisoned on drug charges, 2003/04-2011/12**

	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11 <sup>#</sup>	2011 /12 <sup>#</sup>
<b>HOBART MAGISTRATES COURT*</b>									
<b>No. individuals (alleged no. of offences):</b>									
Dealing/trafficking drugs	120 (138)	123 (130)	106 (118)	97 (106)	104 (114)	128 (130)	125 (132)	217 (247)	<b>145</b> <b>(174)</b>
Importing/exporting drugs	1 (1)	0 (0)	2 (3)	0 (0)	0 (0)	0 (0)	0 (0)	5 (8)	<b>6</b> <b>(9)</b>
Manufacturing/growing	102 (105)	80 (81)	93 (96)	107 (114)	96 (102)	98 (102)	112 (113)	140 (147)	<b>115</b> <b>(117)</b>
Possession and/or use	414 (829)	414 (800)	422 (823)	480 (996)	517 (982)	886 (1056)	637 (1171)	772 (1164)	<b>616</b> <b>(981)</b>
Other drug offences*	4 (6)	1 (1)	1 (1)	0 (0)	1 (1)	1 (1)	0 (0)	239 (276)	<b>198</b> <b>(206)</b>
<b>HOBART PRISON*</b>									
No. individuals incarcerated	36	55	57	56	n/p	84	53	80	<b>81</b>
No. of offences among those incarcerated	83	101	117	128	144	165	121	183	<b>237</b>

**Sources: Magistrates Court (Magistrates Court data); Corrective Services (Prison data), Department of Justice and Industrial Relations**

\*This includes all indictable charges under the *Misuse of Drugs Act 2001*, which includes manufacturing a controlled drug for sale, cultivating a controlled plant for sale, possession of thing used in manufacture of a controlled substance for sale, possession of thing used for cultivation of a controlled plant for sale, manufacturing a controlled precursor intended for use in manufacture of controlled drugs for sale, selling a controlled precursor for use in manufacturing a controlled drug, trafficking in controlled substances and controlled drugs. Numbers of incarcerations refer to cases presented before both the Supreme and Magistrates courts; <sup>#</sup> Since 2010/11 Magistrates Court utilises ASOC 2008 data coding system; as a result previous data are not directly comparable

**Figure 49: Number of individuals before the Hobart Magistrates Court for drug-related offences, 2003/04-2011/12**



**Source: Hobart Magistrates Court**

Note: Since 2010/11 Magistrates Court utilises ASOC 2008 data coding system; as a result previous data are not directly comparable



## 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, which is then analysed, 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.

Table 66 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 process may return a false-positive result.

In 2011/12, 1,678 roadside drug tests were conducted: cannabis was the most commonly detected drug, with 346 OFT and 410 blood tests returning positive results. Positive OFT and blood tests for amphetamine were also relatively common (n=234 and n=185 respectively), as were positive blood test results for methamphetamine (n=239).

**Table 66: Tasmania Police positive roadside drug test results, 2011/12**

	Oral Fluid Testing	Blood Testing
Amphetamine	234	185
Cocaine	19	1
Methamphetamine	37	239
Cannabis	346	410
Ecstasy (MDMA)	-	5

**Source: Tasmania Police State Intelligence Services.**

Note: Differences between oral fluid testing (OFT) and blood testing results are due to some individuals testing negative to the OFT but positive to the blood test and also 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:

- **Heavy Smoking Index.** One-fifth (18%) of daily smokers reported smoking their first cigarette within 5 minutes of waking and one-half (49%) between 5 to 30 minutes of waking. One-half (47%) of daily smokers reported smoking 10 or less cigarettes per day with the remainder smoking more than this. Almost one-fifth (18%) of daily smokers (32%) scored more than 5 on the Fagerstrom test for nicotine dependence, indicating high to very high nicotine dependence, compared to just 5% among the 2011 sample.
- **Neurological history.** One-third (33%) of the 2012 EDRS sample reported lifetime experience of traumatic brain injury. Of those who had ever experienced TBI, one-third (36%) had been under the influence of alcohol and one-tenth (12%) had been under the influence of drugs (most commonly cannabis) at the time of the most serious TBI that they had experienced.
- **Drug policy.** With regard to heroin policy, there was strong support among REU for Needle and Syringe Programs (93%) and methadone/buprenorphine maintenance programs (73%). With regard to the legalisation of drugs for personal use, there was strong support for the legalisation of cannabis (74%) and two-fifths (38%) supported the legalisation of ecstasy. Two-thirds (64%) supported policy to increase penalties in relation to heroin and between one-fifth and one-third supported increased penalties in relation to cannabis, methamphetamine, cocaine and ecstasy.
- **Body image.** Less than one-tenth (8%) of the sample (11% of females and 6% of males) had ever used illicit psychostimulants (most commonly ecstasy or methamphetamine) to lose or maintain weight and 3% reported doing this during the six months preceding the interview. Although the use of illicit psychostimulants for the specific purpose of losing/maintaining weight was relatively low, almost two-fifths (38%) reported that they were concerned about gaining weight if their psychostimulant use was ceased, and this concern was more prevalent among females (42%) relative to males (2%). In addition, over one-tenth (12%, 13% of females and 11% of males) indicated that they were concerned that they had lost too much weight due to illicit psychostimulant use.

### 9.1 Heavy Smoking Index (Fagerstrom test for nicotine dependence)

Participants who smoked daily (n=22) were asked two questions from the Fagerstrom test for nicotine dependence (FTND). These questions were 'How soon after waking do you smoke your first cigarette?' and 'How many cigarettes a day do you smoke?', with scores on each item ranging from 0 to 3. Summed scores on these two items provide a Heavy Smoking Index (HSI) ranging from 0 to 6, with a score of more than 5 indicating high to very high dependence (Heatherton et al., 1989).

Table 67 shows that one-fifth (18%) of daily smokers reported smoking their first cigarette within 5 minutes of waking and one-half (49%) between 5 to 30 minutes of waking. One-half (47%) of daily smokers reported smoking 10 or less cigarettes per day with the remainder smoking more than this. The mean HSI score was 2.7 (SD=2.1). Almost one-fifth (18%) of daily smokers (32%) scored more than 5, indicating high to very high nicotine dependence, compared to just 5% among the 2011 sample.

**Table 67: Tobacco use and Heavy Smoking Index among REU, 2011-2012**

	2011	2012
<b>Time until first cigarette after waking (%)</b>	n=22	n=49
Within 5 mins	27	18
5-30 mins	32	49
31-60 mins	14	16
60+ mins	27	16
<b>Number of cigarettes smoked a day (%)</b>		
10 or less	50	47
11-20	27	47
21-30	18	6
31 or more	5	-
<b>Mean HSI score (SD)</b>	2.4 (1.8)	2.7 (2.1)
<b>High-very high dependence (HSI&gt;5) (%)</b>	5	18

Source: EDRS interviews

## 9.2 Neurological history

Given the association between traumatic brain injury (TBI) and drug use (Corrigan, Bogner, & Holloman, 2012), the prevalence of selected neurological illnesses including TBI were examined among REU in 2012. In developed countries, TBI is a major cause of morbidity and mortality (Bruns & Hauser, 2003) and can result in long-term physical and cognitive impairments and other negative impacts (Tait, Anstey, & Butterworth, 2010). The cognitive, emotional and functional impairments associated with drug use could potentially be compounded with those associated with TBI (Kelly, Johnson, Knoller, Drubach, & Winslow, 1997).

Table 68 shows the prevalence of selected neurological conditions among the 2012 EDRS sample. There were no reports of epilepsy, stroke, or hypoxia among REU interviewed in 2012 but one-third of the sample (33%) reported lifetime experience of traumatic brain injury (TBI). This proportion is relatively consistent with the lifetime prevalence of 35% reported among a community sample of Australian males (Perkes et al., 2011).

**Table 68: Neurological history among REU, 2012**

	EDRS 2012
<b>Incidence of selected neurological conditions (%)</b>	n=100
Epilepsy	-
Stroke	-
Hypoxia	-
Traumatic brain injury (TBI)	33
<b>Median number of TBIs (range)</b>	2 (1-11)

Source: EDRS interviews

Participants who had experienced a TBI were asked for further information about the most severe occasion of TBI (Table 69). On average those who had experienced TBI reported loss of consciousness (LOC) for 2 minutes on average. One-tenth (15%) experienced LOC for more than 30 minutes, a level indicative of moderate to severe TBI.

One-third (36%) reported that they were under the influence of alcohol when they sustained their most severe TBI and one-tenth (12%) reported that they were under the influence of drugs at the time (75% cannabis, 25% ecstasy).

The most severe TBI had usually occurred during the late-teens with a median of 17 years reported (range 9-29). Over one-third (36%) of the group were under the influence of alcohol at the time of the injury and approximately one-fifth (17%) were under the influence of at least one drug. Of these, approximately half (51%) reported they had been under the influence of cannabis and one-third (34%) had taken ecstasy.

Almost three-fifths (48%) reported that they experienced negative effects (e.g., neurological, cognitive, behavioural or psychiatric) from their most severe TBI. The most commonly experienced effects included poor concentration (74%), memory loss (74%), poor coordination/balance (68%), word finding problems (32%) and functional weakness (32%). Ongoing effects of TBI were experienced by only two participants.

**Table 69: Characteristics of most severe TBI among REU, 2012**

	<b>EDRS 2012 n=33</b>
<b>Median minutes loss of consciousness (LOC) (range)</b>	<b>2 (0-360)</b>
<b>Injury severity (%)</b>	
Mild TBI (LOC <30 mins)	<b>85</b>
Moderate/Severe (LOC ≥30 mins)	<b>15</b>
<b>Median age (range)</b>	<b>17 (9-29)</b>
<b>Under influence of alcohol (%)</b>	<b>36</b>
<b>Under influence of drugs (%)</b>	<b>12</b>
<b>Main drug (%)</b>	
Cannabis	<b>75</b>
Ecstasy	<b>25</b>
<b>Experienced any effects* following the injury (%)</b>	<b>58</b>
<b>Acute effects of TBI (%):</b>	
Functional weakness	<b>32</b>
Poor concentration	<b>74</b>
Memory loss	<b>74</b>
Word finding problems	<b>32</b>
Poor coordination/balance	<b>68</b>
Personality change	<b>5</b>
Mood/Anxiety Issues	<b>11</b>

**Source: EDRS interviews**

\*Neurological, cognitive, behavioural or psychiatric effects.

### **9.3 Drug policy**

As part of the wider Drug Policy Modelling Program (DPMP) project being undertaken at the National Drug and Alcohol Research Centre (<http://ndarc.med.unsw.edu.au/group/dpmp>), drug policy questions were added to the EDRS project in 2012. For comparability with general population responses, the policy questions were drawn from the National Drug Strategy Household Survey (AIHW, 2008).

Participants were asked to rate to what extent they would support or oppose various drug policy statements on a 5-point likert scale ranging from 1 ('strongly support') to 5 ('strongly

oppose). Participants could also give a 'don't know' response. Participants were asked three policy questions: (1) 'Thinking about the problems associated with heroin use, to what extent would you support or oppose measures such as.....?', (2) 'To what extent would you support or oppose the personal use of the following drugs being made legal?' and (3) 'To what extent would you support or oppose the increased penalties for sale or supply of the following drugs?'

Table 70 shows the proportion of the sample who responded either 'strongly support' or 'support' for each statement. With regard to heroin policy, there was strong support for Needle and Syringe Programs (93%) and methadone/buprenorphine maintenance programs (73%), and three-fifths were in support of regulated injecting rooms (65%) and other drug treatment programs (59%). Fewer were in support of trialling prescribed heroin (28%), use of naltrexone (29%), and rapid detoxification therapy (20%); however, over one-half responded 'don't know' in relation to the latter two treatments (52% and 66% respectively).

With regard to policy to legalise personal use of particular drugs (Table 70), there was strong support for the legalisation of cannabis (74%) but less support for the legalisation of ecstasy, cocaine, methamphetamine and heroin.

With regard to policy to increase the penalties of sale or supply of particular drugs (Table 70), two-thirds (64%) supported increased penalties in relation to heroin and between one-fifth and one-third supported increased penalties in relation to cannabis, methamphetamine, cocaine and ecstasy.

**Table 70: Support for drug policy measures among REU, 2012**

	<b>EDRS 2012</b>
<b>Support measures to reduce problems associated with heroin use (%):</b>	<b>n=100</b>
Needle and Syringe Programs	<b>93</b>
Methadone/Buprenorphine maintenance program	<b>73</b>
Treatment with drugs (not methadone)	<b>59</b>
Regulated injecting room	<b>65</b>
Trial of prescribed heroin	<b>28</b>
Rapid detoxification therapy	<b>20</b>
Use of naltrexone	<b>29</b>
<b>Support legalisation (personal use) of illicit drugs (%)</b>	<b>n=100</b>
Cannabis	<b>74</b>
Heroin	<b>12</b>
Methamphetamine	<b>17</b>
Cocaine	<b>29</b>
Ecstasy	<b>38</b>
<b>Support increased penalties for sale/supply of illicit drugs (%)</b>	<b>n=100</b>
Cannabis	<b>21</b>
Heroin	<b>64</b>
Methamphetamine	<b>38</b>
Cocaine	<b>31</b>
Ecstasy	<b>28</b>

**Source: EDRS interviews**

## 9.4 Body image

Questions were added to the 2012 EDRS to investigate the relationship between illicit psychostimulant (IPS) use and body image (Table 71). Less than one-tenth of the sample (8%, 11% of females and 6% of males) had ever used IPS to lose or maintain weight and 3% (2 females and 1 male) reported doing this during the six months preceding the interview. Drugs most commonly ever used to lose or maintain weight were ecstasy (75%) and methamphetamine (63%).

Although the use of IPS for the specific purpose of losing/maintaining weight was relatively low, almost two-fifths (38%) reported that they were concerned about gaining weight if their IPS use was ceased, and this concern was more prevalent among females (42%) relative to males (2%). In addition, over one-tenth (12%, 13% of females and 11% of males) indicated that they were concerned that they had lost too much weight due to IPS use and 17% reported that it would be a desirable outcome if they put on weight after ceasing IPS use.

**Table 71: Use of illicit psychostimulants (IPS) to lose or maintain weight among REU, 2012**

	<b>EDRS 2012 n=100</b>
<b>Ever used IPS to help lose or maintain weight (%)</b>	<b>8</b>
<b>IPS used to lose or maintain weight (%)*</b>	<b>n=8</b>
Ecstasy	<b>75</b>
Methamphetamine	<b>63</b>
Cocaine	<b>25</b>
Dexamphetamine	<b>13</b>
Ritalin (methylphenidate)	<b>25</b>
Duromine	<b>13</b>
Other	<b>13</b>
<b>Used IPS to help lose or maintain weight in last six months (%)</b>	<b>3</b>
<b>Concerned about gaining weight if IPS use is ceased (%)</b>	<b>38</b>
<b>Concerned that lost too much weight due to IPS use (%)</b>	<b>12</b>
<b>Desire weight gain if IPS use ceased (%)</b>	<b>17</b>

Source: EDRS interviews

\*among those who had used IPS to lose or maintain weight

## 10.0 REFERENCES

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