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## Key findings

- In the national sample, females were more likely than males to have completed Year 12 and less likely to be unemployed. There were no significant gender differences in the demographic characteristics of Queensland recreational ecstasy users.
- There were similar patterns of ecstasy use in Queensland and nationally, with only minor gender differences in both samples.
- In both samples, gender differences were not apparent in age of first use for ecstasy, alcohol or tobacco.
- In Queensland the median use of ecstasy was fortnightly, use of alcohol was biweekly, and use of tobacco was daily.
- There was a trend for more females than males in Queensland to report higher levels of lifetime use of tobacco, use in the last six months, use daily or every second day, and tobacco as their drug of choice.
- Alcohol was the drug of choice for 23% of males and 6% of females (total 16%) in Queensland compared to 13% of males and 7% of females nationally (total 11%).

## Licit drug use by ecstasy users, nationally and in Queensland: are there gender differences?

### Introduction

The Ecstasy and Related Drugs Reporting System (EDRS) is an annual study monitoring ecstasy and related drug markets in every jurisdiction in Australia. The project includes surveys with regular ecstasy users (REU), interviews with key experts who have contact with REU, and analysis of existing indicator data from the health and law enforcement sectors. Detailed findings of the 2009 EDRS state and national reports are available on the NDARC website (<http://ndarc.med.unsw.edu.au/NDARCWeb.nsf/page/EDRS>).

### Alcohol and tobacco use

Amongst young people in Australia certain drug use, particularly of so-called party drugs, appears to be becoming part of normal behaviour (Holt 2005). If this is the case, gender differences in the use of licit psychoactive substances (i.e. alcohol and smoking) among REU can be expected to mirror the general population.

Traditionally females have been less inclined than males to use alcohol and other drugs (O'Brien et al 2008) but in recent years there has been growing evidence suggesting that gender differences, particularly among young people, are declining with female drinking and smoking behaviour moving closer to male behaviour (Roche & Deehan 2002; Nolen-Hoeksema 2004). This trend has been attributed to societal changes and in particular gender roles (Ali et al 2009). It has also been observed, however, that the degree of gender distinction varies according to different sub-cultures (Roche & Deehan 2002). This study explores gender differences in a sample population of REU in Queensland and Australia-wide.

### Methods

Data for the national sample was gathered from interviews with a total of 752 regular ecstasy users (REU) throughout

Australia. (The four interviews from transgender participants were not used in this study.) Data for the Queensland sample was gathered from interviews with 88 REU. Participants were recruited through advertising and snowballing methods in the capital cities of all Australian states and territories. Selection criteria was that participants were aged 16 years or over, had used ecstasy at least once a month for the past six months, and had been residing in the in capital city for the past 12 months. Interviews were conducted face-to-face, with a quantitative-based pen and paper questionnaire lasting approximately 45 minutes. All participants gave informed consent, knowing their participation was entirely voluntary and the information given would be confidential and be de-identified. Participants were reimbursed \$40 for their time.

## Results

### Demographic characteristics of REU according to gender

The mean age for the respondents in the national sample was 24 years old (Table 1), with females being slightly younger than males. The regular ecstasy users in the Queensland sample had a slightly higher mean age of 25 years, with the Queensland male average age being two years older than the female average age.

Seventy-two percent of the national sample completed Year 12, with females reporting significantly higher rates of completion than males ( $p = .028$ ). The Queensland sample appeared to have a higher proportion of Year 12 completion than the national sample with no gender differences.

Gender differences were not significant in the Queensland or national sample for post-school education. As a whole, the Queensland sample appeared to report higher rates of post-school course completion than the national sample. Within the Queensland sample, gender differences were evident (though not significant), with more females than males completing courses after school.

The proportion of unemployed respondents was similar across the Queensland and national samples. Within the national sample, males had higher rates of unemployment than females ( $p = .052$ ). In the Queensland sample, 23% females reported being unemployed compared with 15% males ( $p = .355$ ).

In summary, the Queensland sample appeared to be slightly older, with more respondents completing Year 12 and completing a post-school course than the national sample. The Queensland females were more likely to have completed a post-school course and to be unemployed than their male counterparts.

**Table 1: Demographic characteristics of female and male in REU, Australia and Queensland**

Demographics	Australia			Queensland		
	Female (n = 272)	Male (n = 480)	Total (n = 752)	Female (n = 35)	Male (n = 53)	Total (n = 88)
Mean age	23 yrs	24 yrs	24 yrs	24 yrs	26 yrs	25 yrs
Completed Year 12	77%	69%*	72%	80%	81%	81%
Completed post-school course	44%	43%	43%	71%	56%	62%
Unemployed	14%	20%*	18%	23%	15%	19%

\*  $p \leq .05$

Source: National and Queensland EDRS regular ecstasy user interviews 2009

### Ecstasy use among female and male REU

Ecstasy was reported as the drug of choice by 42% of the national sample; and as the drug of choice by 39% of the Queensland sample (Table 2). In both samples females were more inclined to nominate ecstasy as their drug of choice than males.

There were no gender differences in the mean age of first use either nationally or in Queensland (i.e. 19 years and 18 years respectively). Median days of ecstasy use in the last six months was 13 days both nationally and in Queensland, with females reporting less days used nationally, and females reporting more days used in Queensland. The gender differences in ecstasy use were minor, although more females nominated ecstasy as their drug of choice.

It must be noted that more males than females participated in the study both in Queensland and nationally. This may indicate that there are higher levels of males using across Australia or may be a function of gender bias in recruitment methods.

**Table 2: Patterns of ecstasy use among female and male REU, Australia and Queensland**

Ecstasy use	Australia			Queensland		
	Female (n = 272)	Male (n = 480)	Total (n = 752)	Female (n = 35)	Male (n = 53)	Total (n = 88)
Mean age first used	19 yrs	19 yrs	19 yrs	18 yrs	18 yrs	18 yrs
Median days used last 6 months	12 days	14 days	13 days	13 days	12 days	13 days
Ecstasy, drug of choice	47%	40%	42%	43%	36%	39%

Source: National and Queensland EDRS regular ecstasy user interviews 2009

## Alcohol use among female and male REU

Nearly all participants responded that they used alcohol in the last 6 months (Table 3). The median number of days used for the national sample was consistently 48 days, regardless of gender. This equates to drinking a drink containing alcohol approximately twice a week. In the Queensland sample, the median was 49 days. The Queensland females reported drinking more frequently in the last 6 months of being interviewed, with 52 days being the median number of days drinking out of a potential 180 days. The mean age of the first use of alcohol remained constant across all categories at 14 years of age.

Alcohol was the drug of choice for 11% of the national sample, and 16% of the Queensland sample. A much lower percentage of females than males nominated alcohol as drug of choice in Queensland.

**Table 3: Patterns of alcohol use among female and male REU, Australia and Queensland**

Alcohol use	Australia			Queensland		
	Female (n = 272)	Male (n = 480)	Total (n = 752)	Female (n = 35)	Male (n = 53)	Total (n = 88)
Used alcohol last 6 months	98%	97%	98%	100%	98%	99%
Median days used last 6 months	48 days	48 days	48 days	52 days	48 days	49 days
Mean age first used	14 yrs	14 yrs	14 yrs	14 yrs	14 yrs	14 yrs
Alcohol, drug of choice	7%	13%	11%	6%	23%	16%

Source: National and Queensland EDRS regular ecstasy user interviews 2009

## Tobacco smoking among regular ecstasy users

There were no significant gender differences in the initiation age of tobacco smoking amongst REU in Queensland and Australia. The mean age for the first use of tobacco was reported to be 15 years for both females and males (Table 4).

Most REU (nationally and in Queensland) reported having ever used tobacco. The percentages for males reporting having ever used tobacco were similar in the two samples; although the percentages for females were 97% in Queensland and 90% nationally.

The percentage of REU who smoked in the last six months in Queensland and across Australia was similar. In the national

sample, a similar proportion of males and females reported smoking in the last six months. In Queensland, however, more females than males reported having smoked in the previous six months. This was 10% higher than the percentage reported by females in the national sample.

In both samples there was a similar proportion of daily and every second-day tobacco smokers, though the proportion appeared higher in the Queensland sample than in the national sample. Interestingly, 60% of female REU in Queensland reported daily or every second-day tobacco use compared to 45% in the national sample.

Tobacco was the drug of choice for only a very small proportion of participants nationally and in Queensland. There were no apparent gender differences both in the Queensland and the national samples.

These figures suggest that gender differences in tobacco smoking amongst regular ecstasy users are narrowing at a national level; although in Queensland the patterns of tobacco use tended to be higher among Queensland female than male REU, with females reporting higher levels of ever use, use in the last six months, use daily use or every second day, and tobacco as their drug of choice.

**Table 4: Patterns of tobacco use among female and male REU, Australia and Queensland**

Tobacco use	Australia			Queensland		
	Female (n = 272)	Male (n = 480)	Total (n = 752)	Female (n = 35)	Male (n = 53)	Total (n=88)
Ever used tobacco	90%	93%	92%	97%	91%	93%
Mean age first smoked	15 yrs	15 yrs	15 yrs	15 yrs	15 yrs	15 yrs
Smoked in the last six months	78%	82%	80%	87%	76%	83%
Smoke daily or every 2nd day*	45%	54%	51%	60%	45%	57%
Tobacco, drug of choice	3%	2%	2%	6%	2%	3%

\*Of those who have smoked in the last 6 months

Source: National and Queensland EDRS regular ecstasy user interviews 2009

## Conclusions and implications

The Queensland REU sample appears to have more pronounced gender differences in alcohol and tobacco use than the national sample. This may relate to Queensland females being noticeably more likely to have completed a post-school course than Queensland males, and to either females or males nationally. The overall higher degree of unemployment amongst female participants in Queensland is also worth noting. However, how these demographic differences might influence alcohol and tobacco use is not readily apparent. There was a larger trend for males to nominate alcohol as their drug of choice than females in Queensland compared to Australia-wide. Conversely, unlike the national sample, there was a trend for Queensland females to have a higher tobacco use than males.

These gender differences may be a function of the small sample size. A larger sample may detect a clearer picture of the associations. Further research is needed to determine the possible social and environmental factors influencing these patterns so that more effective health promotion about licit drugs can be tailored to recreational ecstasy users.

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