



Sexually transmitted infection testing (STI), diagnosis and sexual behaviour in regular ecstasy users (REU) in Australia, 2007-2012

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KEY FINDINGS

- Between 2007 and 2012, less than half of REU reported having an STI test in the 12 months preceding their interview
- Ten per cent of REU who reported testing in the preceding 12 months reported an STI diagnosis in the same period
- Chlamydia was the most commonly reported STI diagnosed in the preceding 12 months (73%)
- Reported recent STI diagnosis increased significantly between 2011 (6%) and 2012 (13%)
- Majority of REU reported having two or more casual sex partners in the preceding six months; there was a general increasing trend in the percentage of REU reporting two or more partners between 2008 and 2012
- There was an increasing trend in REU reporting concurrent sex and drug use between 2009 and 2012
- There was an increasing trend in the number of REU reporting inconsistent condom use with casual sex partners when having sex while using drugs between 2007 and 2010. In 2012, inconsistent condom use during concurrent sex and drug use was reported by 67% of REU
- REU were more likely to report testing for an STI in the preceding 12 months if they reported inconsistent condom use (49%) compared to consistent condom use (42%)
- REU were more likely to report an STI diagnosis if they reported inconsistent condom use (16%) compared to consistent condom use (6%)

INTRODUCTION

Sexually transmitted infections (STI) are a global health issue affecting a large number of young people (1). Chlamydia is the most commonly notified STI in Australia, with the majority of infections occurring in young people aged 15-29 years (2). In 2012 there were 3,445 notified chlamydia cases per 100 000 population in this age group (2). Chlamydia produces significant morbidity in young people, causing infertility or pelvic inflammatory infection through untreated infections(3).

It has been long known that alcohol consumption can impair judgement and is associated with higher rates of STI, more sexual partners, unwanted pregnancies and abortions (4). More recently, the use of psychostimulants has become more normalised and more widespread (4, 5). These drugs can also impair judgement and increase sexual health risk by decreasing the likelihood of condom use and increasing the likelihood of regretted or unwanted sex (4, 6).

The aim of this bulletin is to describe trends in reported STI testing, diagnosis and sexual risk behaviour among regular ecstasy users (REU) in Australia between 2007 and 2012. Investigating these factors is important to better understand the health needs of this population.

METHODS

The Ecstasy and related Drugs Reporting System (EDRS) is a sentinel surveillance system involving interviews with up to 100 REU in all of the capital cities of Australia, interviews with key experts and collection of indicator data annually. The EDRS questionnaire consist of questions on demographics, drug use, perceptions of drug price, purity and availability, mental health, blood borne viruses, sexual health testing and behaviour, crime and other modules that vary from year to year. For the purposes of this bulletin, the sexual health testing and behaviour section of the questionnaire was analysed in detail. The main STI listed in the survey were chlamydia, gonorrhoea, syphilis and

human papillomavirus (HPV) - there was an option to list other STI if mentioned. HIV was listed separately in another question under blood borne viruses and is not included in the estimation of STI diagnosis.

The EDRS questionnaire was completed with REU during a confidential interview. REU were eligible to participate if they reported using ecstasy on at least six occasions in the past six months, were aged 16 years or older and lived in their respective jurisdictions in the 12 months prior to interview. In 2012 some jurisdictions (NT, WA and QLD) expanded the eligibility criteria to those who report using illicit psychostimulants on at least six occasions in the past six months. These people are labelled REU for the purposes of this bulletin.

For further information on recruitment methods, please refer to http://ndarc.med.unsw.edu.au/sites/ndarc.cms.med.unsw.edu.au/files/ndarc/resources/National_EDRS_2011%20final.pdf.

Analysis

EDRS data between 2007 and 2012 were used in this analysis. Descriptive statistics were generated using Stata version 11.2. Tests for trend were conducted where data were available on the number of casual sex partners, reported sex with casual partners while using drugs and inconsistent condom use with casual partners while using drugs. Tests of proportion were used to compare changes in STI diagnosis at two specific years. χ^2 tests were used for comparison of STI testing and diagnosis between REU who reported inconsistent condom use compared to consistent condom use when having sex while using drugs. $p < 0.05$ was considered significant.

Some questions were not asked in all years. Questions about number of casual partners were not collected in 2007. Questions about STI testing and diagnosis were not collected in 2009. Questions about condom use by REU when having sex under the influence of drugs were not collected in 2011. Surveys were excluded if participants indicated they had participated in the EDRS in previous years except for surveys completed in 2007.

RESULTS

Demographics

Between 2007 and 2012 3,508 REU EDRS survey responses were available for analysis. REU who participated in the EDRS were generally male (61%), had completed high school (76%), were engaged in some form of employment (70%) and were aged

around 22 years (range=16-59). Eighty five per cent of REU reported identifying as heterosexual with the remainder identifying as gay, lesbian, bisexual transgender, queer or questioning.

Overview of testing and STI diagnosis

Of those who chose to answer ($n=2,822$), less than half (43%) of REU reported having an STI test in the past 12 months and 36% reported never having a sexual health check-up. Of those who reported having an STI test in the past 12 months ($n=1,209$), 10% reported receiving an STI diagnosis in the last year. Among those recently diagnosed ($n=117$), chlamydia was the most commonly reported STI (73%), followed by gonorrhoea (7%) and human papillomavirus (HPV) (8%). Syphilis diagnosis was uncommon with only one person reporting diagnosis in the past 12 months.

HIV testing was asked separately, categorised under blood borne viruses. Of 1,275 REU who reported ever having an HIV test, 1.6% reported receiving a positive HIV test result.

Trends in testing and diagnosis

The percentage of REU reporting testing for STI in the past 12 months was consistently under 50% between 2007 and 2012 with slight variations over time (Table 1). Among those who reported testing in the past 12 months, the percentage reporting STI diagnosis between 2007 and 2010 was stable but a slight decrease in 2011 was followed by a significant increase in 2012 (6% & 13% for 2011 & 2012 respectively; $p=0.02$).

Table 1. Reported STI testing and diagnosis rates among REU, 2007-2012

		2007	2008	2009	2010	2011	2012
Total	(n)	735	540	n/a	561	465	511
Tested for STI, past 12 months (%)	No[^]	57	59	-	56	53	59
	Yes	43	41	-	44	47	41
Diagnosed with STI, past 12 months (%)[#]	Yes	10	10	n/a	10	6	13

n/a= not asked

[^] Includes REU who reported never tested, tested more than 12 months ago and don't know

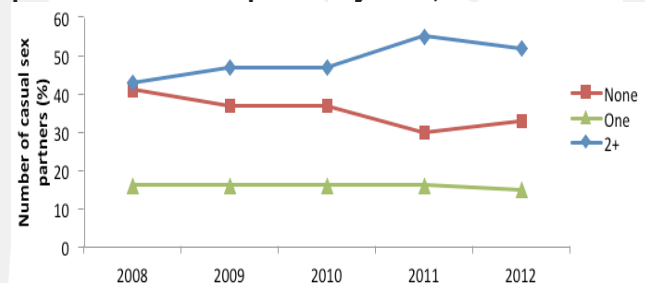
[#] Among those who tested for STI in the past 12 months

Sexual behaviour

The majority of REU typically reported having two or more casual sex partners in the preceding six months (Figure 1). Test for trend indicate an increasing trend in the percentage of REU reporting two or more partners between 2008 and 2012 ($p < 0.01$), meanwhile there

was also a declining trend in the percentage of REU reporting no casual partners over the same period ($p < 0.01$) (data not available for 2007).

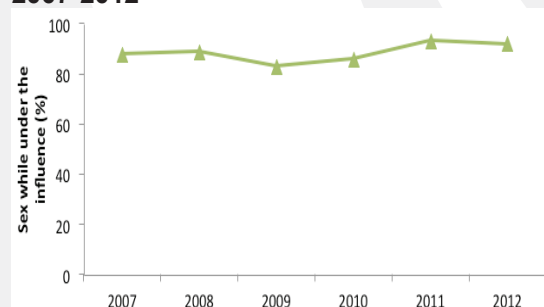
Figure 1. Trends in number of casual partners in past six months reported by REU, 2008-2012



Question did not specify casual partner in 2007

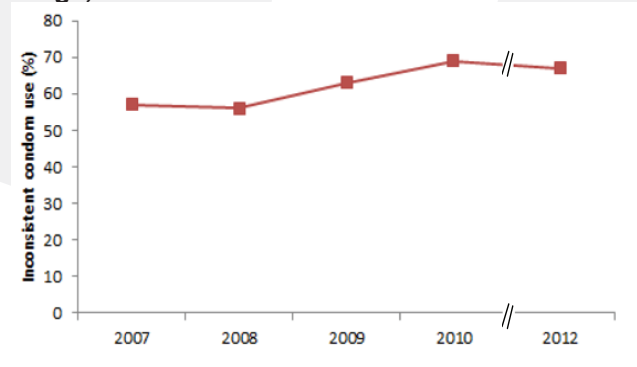
While there was a non-significant declining trend in the percentage of REU reporting sex with a casual partner *when using drugs* in the past six months between 2007 and 2009, the test for trend suggested a general increase between 2009 and 2012 ($p < 0.01$) (Figure 2). The most commonly reported drugs used when having sex in the preceding six months were alcohol (68%), ecstasy (60%), cannabis (39%), speed (11%), cocaine (10%) and crystal meth (9%) (not mutually exclusive). Forty-eight per cent of REU who reported having sex while using drugs, reported having an STI test in the preceding 12 months.

Figure 2. Trends in reporting sex with casual partners while using drugs in past six months, 2007-2012



Of the 1,514 REU who answered between 2007 and 2012, 64% reported inconsistent condom use with casual partners while using drugs when having sex in the past six months. A test for trend suggested an increasing trend in the percentage of REU reporting inconsistent condom use between 2007 and 2010 ($p < 0.01$), but the percentage remained stable in 2012 (data not collected in 2011) (Figure 3).

Figure 3. Inconsistent condom use among REU reporting sex with casual partner while using drugs, 2007-2012



Data not collected in 2011

Among REU who reported using drugs when having sex in the past six months, REU who reported inconsistent condom use (49%) were more likely to report receiving an STI test in the past 12 months compared to those who reported consistent condom use (42%; $p = 0.02$). Similarly, among REU who reported having been tested for an STI and reported using drugs when having sex, REU who reported inconsistent condom use (16%) were also more likely to report receiving an STI diagnosis in the past 12 months compared to those who reported consistent condom use (6%; $p < 0.01$).

CONCLUSION

In more recent years of EDRS data collection, REU have increasingly reported risky sexual behaviours such as having two or more casual sex partners, having sex while using drugs with casual sex partners and reporting inconsistent condom use when having sex while using drugs with casual sex partners. Encouragingly REU were more likely to report having had an STI test and diagnosis if they reported inconsistent condom use when having sex while using drugs with casual sex partners. However, consistently less than half of REU reported having a recent STI test within the last year which is concerning because the literature suggests that concurrent sex and drug use place people at increased risk of STIs (4, 6). As infections are often asymptomatic, there is a real chance infections may be left untreated and lead to serious health consequences (1). Despite a relationship between drug use and sexual health being recognised in the scientific literature, sexual health and drug campaigns are often implemented separately (4, 7, 8). Future interventions could incorporate educational materials that overlap both domains to address this issue.

Participating researchers and research centres

Dr Lucy Burns, Natasha Sindicich, Jennifer Stafford, Laura Scott, Rachel Sutherland, Kerryn Butler and Joe Van Buskirk, National Drug and Alcohol Research Centre (National, NSW, ACT, SA & NT)

Phuong Nguyen and A/Prof Paul Dietze, Burnet Institute (VIC)

Dr Allison Matthews and Dr Raimondo Bruno, University of Tasmania (TAS)

Jodie Grigg and Prof Simon Lenton, National Drug Research Institute (WA)

Fairlie McIlwraith, Sophie Hickey and A/Prof. Rosa Alati, Queensland Alcohol and Drug Research and Education Centre (QLD)

Other acknowledgements

The researchers, both past and present, who participated in the data collection process.

The regular ecstasy users and key experts who participated

The agencies that assisted with indicator data

The funders, the Australian Government Department of Health and Ageing

REFERENCES

1. Bearinger LH, Sieving RE, Ferguson J, Sharma V. Global perspectives on the sexual and reproductive health of adolescents: patterns, prevention, and potential. *Lancet*. 2007;369(9568):1220-31.
2. DOHA. National Notifiable Diseases Surveillance System. Available at <http://www9.health.gov.au/cda/Source/CDA-index.cfm>. Accessed 13 Nov, 2012.
3. Paavonen J, Eggert-Kruse W. Chlamydia trachomatis: Impact on human reproduction. *Human Reproduction Update*. 1999;5(5):433-47.
4. Bellis MA, Hughes K, Calafat A, Juan M, Ramon A, Rodriguez JA, et al. Sexual uses of alcohol and drugs and the associated health risks: A cross sectional study of young people in nine European cities. *BMC Public Health*. 2008;8.
5. Duff C. Party drugs and party people: Examining the 'normalization' of recreational drug use in Melbourne, Australia. *International Journal of Drug Policy*. 2005;16(3):161-70.

6. Jenkinson R, Lim M, Bowring A, Dietze P, Hellard M. Young risk takers: alcohol, illicit drugs and sexual practices among a sample of music festival attendees. 38th Annual Meeting of Kettil Bruun Society; Stavanger, Norway 2012.

7. DOHA. National Drugs Campaign. Available at <http://www.drugs.health.gov.au/internet/drugs/publishing.nsf/content/campaign4>. Accessed 14 Nov, 2012.

8. Australian Government. STI Campaign. Available at <http://www.sti.health.gov.au/internet/sti/publishing.nsf/content/campaign>. Accessed 14 Nov, 2012.

Suggested citation

Nguyen P., & Dietze P. (December 2012). Sexually transmitted testing (STI), diagnosis and sexual behaviour in regular users (REU) in Australia, 2007-2012. EDRS Drug Trends Bulletin December 2012. Sydney: National Drug and Alcohol Research Centre, University of New South Wales.