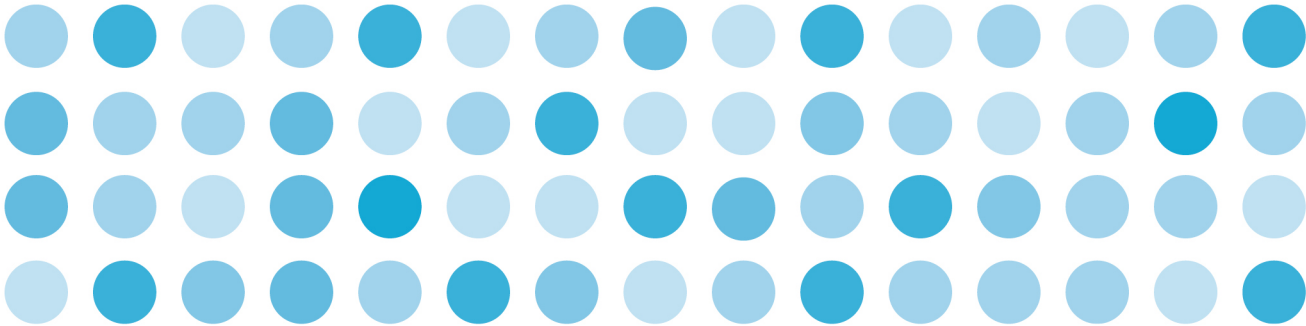


25-26 October 2010
Melbourne Cricket Ground



Anex 2010
**AUSTRALIAN
DRUGS
CONFERENCE**
Public Health and Harm Reduction

Andrew Conroy



How does the health and behaviour of young adult ecstasy users compare to that of non-users, and what are the policy implications?

ANEX 2010 Australian Drugs
Conference

Findings from the Natural History
Study

Presented by Andrew Conroy



THE NATURAL HISTORY ATS STUDY

ARC Linkage Study

Partners

1. QADREC, UQ School of Population Health
2. Harm Reduction Unit, Health Protection Directorate, Queensland Health
3. Research & Prevention, CMC

Andrew Conroy^{1,2}, Robert Kemp², Suzanne Henderson¹, Margot Legosz³, Jake M Najman¹, Helene Wells³



Overview

- background
- study design
- findings: describing the target behaviours
 - i. population prevalence
 - ii. demographic and social characteristics
 - iii. drug use patterns
 - iv. mental health
 - v. antisocial behaviour
 - vi. drug market involvement
- policy considerations (what questions need to be addressed?)



background

THE
ADDICT,
THE
DEALER,
AND
THE
VICTIMS

"The biggest cost is to the individual ... you're more likely to lose your job, your family. You're more likely to die."

Source: The Courier Mail, 30 March 2009 (front page; page 14)

Old Police to crack down on drugs at music festivals

Posted Tue Jan 6, 2009 6:00pm AEDT

Police will target music festivals across south-east Queensland in the coming months in an attempt to combat the use illicit drugs.

Police have also warned about the dangers of drug use, after the death of a 28-year-old woman in Brisbane and several overdoses on the Sunshine Coast.

The woman died after taking two ecstasy tablets sold to her in a Fortitude Valley nightclub.

Police are yet to confirm whether it was actually another amphetamine-based drug known as PMA.

At the weekend three people were taken to the Sunshine Coast hospital after they took the drug fantasy, while on the Gold Coast dozens of people were charged with drug offences at the Summerfieldayze event. Acting Superintendent Steve Holahan, from State Crime Operations Command, says police will continue to put pressure on the drug trade.

"At different events police both district police or regional police plus State Crime will certainly be looking at strategies to effectively police those and make sure people's safety is paramount," he said.

"The people that are making these types of drugs aren't trained chemists," he said.

"Certainly the laboratories are often very primitive and ad hoc, which really increases the risk."

Source: <http://www.abc.net.au/news/stories/2009/01/06/2460264.htm>



Trends in law enforcement

- “Targeting of entertainment precincts by the QPS has resulted in an increase in offences identified”
- Total weight of analysed ecstasy seizures increased fourfold since 2004
 - median purity of seizures almost halved
- Positive tests for ecstasy since 2001 (DUMA)
 - Australia - < 1% to 3% in 2008
 - Brisbane - < 1% to 2%
 - Southport - < 1% to 7.5%

Source: Crime and Misconduct Commission, Crime Bulletin No. 12, Feb. 2010



Demand for treatment

- The principal drug of concern in closed treatment episodes for young adults (aged 20-29 years), in 2007-08
 - 31.9% alcohol
 - 27.6% cannabis
 - 15.6% amphetamines
 - 13.3% heroin
 - 1.2% ecstasy

Source: Australian Institute of Health and Welfare (2009). Alcohol and other drug treatment services in Australia 2007–08: report on the national minimum data set.



study design



NATURAL HISTORY STUDY METHODS

- Sample screened from random selection of general population (50.2% response)
- ATS group: use of ecstasy or amphetamines 3+ times in the past year at time of screening (N=352)
- At baseline interview
 - Use last 12 months: 96% ecstasy, 60% amphetamines
 - Use last month: 46% ecstasy, 14% amphetamines
- Comparison group: had never used ecstasy or amphetamines at the time of screening (N=204)
- Aged 18 to 23 years at baseline interview
- Retrospective/prospective longitudinal study



findings

i. drug use prevalence (screening data)

Drug use prevalence (ages 18-23)

(m 2655, f 3396)

	Ever used	Used last 12 months	Used 3+ times last 12 months
Tobacco			
Male	55.7	40.9	30.5
Female	52.7	33.7	24.0
Alcohol			
Male	94.6	91.7	86.2
Female	96.4	93.8	85.4
Cannabis			
Male	41.2	24.9	14.6
Female	38.2	20.4	8.9

Drug use prevalence (ages 18-23)

(m 2655, f 3396)

	Ever used	Used last 12 months	Used 3+ times last 12 months
Ecstasy			
Male	22.8	15.6	9.7
Female	21.1	13.3	7.3
Methamphetamine			
Male	12.0	6.3	2.9
Female	10.2	5.2	2.3



findings

ii. demographic and social characteristics

DEMOGRAPHY

ATS and comparison groups by gender

	Males (%)		Females (%)	
	ATS (N=177)	Comp (N=82)	ATS (N=175)	Comp (N=122)
Age (years)	20.9	20.6	20.8	20.9
Received OP score	69.8	74.3	80.0	84.6
FT Study	29.3	47.5	37.7	50.8
FT employment	60.1	39.8	48.0	29.4
Fortnightly income after tax (\$)	1136	835	956	701

LIVING CIRCUMSTANCES (%)

		Living with Parents	Never left home	Returned to live with family	Lived in >1 place (12 months)
Male	ATS (N=174)	66.8	37.9	38.5	25.8
	Comparison (N=82)	75.9	57.3	24.3	15.8
Female	ATS (N=172)	62.2	30.2	43.0	33.1
	Comparison (N=122)	70.2	54.1	27.0	18.8



findings

iii. drug use patterns (baseline)

Drug use patterns

	Infrequent	Weekly	Daily
Tobacco			
ATS	38.6	17.1	36.9
CG	32.8	2.5	8.3
Alcohol			
ATS	23.0	71.3	4.8
CG	46.6	45.1	0.5
Cannabis			
ATS	63.9	21.6	8.8
CG	24.5	0.5	0.0

Drug use patterns

	Infrequent	Weekly	Daily
Ecstasy			
ATS	90.3	8.8	0.0
CG	0.0	0.0	0.0
Methamphetamine			
ATS	77.6	2.8	0.0
CG	0.0	0.0	0.0



findings

iv. mental health

HADS

- brief (14 item) measure identifying probable cases of anxiety & depression
 - timeframe: last 4 weeks
 - scores range from 0-42 (0-21 each subscale)
 - avoids confounding - somatic effects of drug use (Sumnall & Cole, 2005; Verheyden et al, 2003)
- complete scale also valid measure of psychological distress
 - validated against SCID (DSM-III-R) any diagnosis
 - cut-off of 14 used to indicate clinically significant distress (Spinhoven et al, 1997; Crawford et al, 2001)

Psychological distress (HADS)

- Females
 - ATS 9.2 (N=174) vs. CG 8.8 (N=122)
 - psychological distress – 20% vs. 21.3%
- Males
 - ATS 8.0 (N=177) vs. CG 7.6 (N=82)
 - psychological distress – 13.6% vs. 8.5%
- No significant difference between groups (before or after adjustment for social and demographic variables)

Variables associated with psychological distress

- adjustment for other drug use, age and sex
- likelihood of psych distress - ATS group
 - ↑ daily use of tobacco (OR 1.9, $p < 0.05$) or cannabis (OR 3.4, $p < 0.01$)
 - ↓ male sex (OR 0.5, $p < 0.05$)
- likelihood of psych distress – CG
 - ↓ male sex (OR 0.3, $p < 0.01$)



findings

v. anti-social behaviour

YASR - Aggressive behavior scale

- Achenbach Young Adult Self Report: 12 items
 - e.g. “I argue a lot”, “I don’t get along with other people”, “I physically attack people”, “My mood or feelings change suddenly”, “I threaten to hurt people”
- reasonable inter-item reliability
 - $\alpha = 0.81$
- widely used and validated instrument
 - Australian population data



Aggressive behavior scores (0-24)

- Females (mean)
 - ATS 4.0 (N=127) vs. CG 3.7 (N=119)
- Males (mean)
 - ATS 4.4 (N=116) vs. CG 3.7 (N=81)



findings

vi. drug market involvement

WHERE DO YOU GET YOUR E FROM? (%)

	Males (N=151)	Females (N=147)
Dealers		
Mostly	47.0	32.7
Sometimes	21.2	27.2
Friends		
Mostly	68.9	71.4
Sometimes	27.8	21.8
Acquaintances		
Mostly	6.6	10.9
Sometimes	49.7	36.1
Partner		
Mostly	9.3	23.1
Sometimes	14.0	27.2





GROUP PURCHASING & PROFIT

- about half (47.0% males, 51.7% females) mostly bought on behalf of others when buying for themselves, not including those looking to profit
- a minority mostly made group purchases with some profit (a further 5.3% of males and 1.4% females)
- 2.3% of males and 0.0% of females bought e primarily to make a profit
- median spent per month
 - females \$33, males \$50
- cheaper night out than alcohol (\$10 - \$30 a pill)



What are they actually buying?

- On last occasion of ecstasy use
 - 33% unsure/doubtful that the pill contained real MDMA
- Median of 70 pills ever used
 - 5 occasions when effects much weaker
 - 2 occasions when effects noticeably different



Summary

- ecstasy use relatively common for young adults
 - similar to non-users; more likely to be in full-time employment
- the vast majority of ecstasy use is infrequent
 - ‘regular’ use tends to be less than weekly
- mental health: no difference between ecstasy users and comparison group
 - no dose-response effect of frequent use
 - long-term effects not yet addressed by study



Summary

- no group differences in aggressive behaviour
- group purchases on behalf of friends is commonplace
 - rarely sold for profit
 - usually not perceived as ‘dealing’
 - relatively small amounts of money involved at individual level
- self-reported use of non-MDMA ‘ecstasy’ is common

Policy considerations

- first step of policy development: defining the problem accurately, based on good evidence
- is current policy targeted to reduce observed harms?
- what are the alternatives, if any?
- regulatory typology
 - command and control
 - self-regulation
 - market driven

Ritter (2010) Illicit drugs policy through the lens of regulation.
International Journal of Drug Policy



Contact:

a.conroy@uq.edu.au