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**Driving and clubbing in Victoria:
A study of drug use and risk among nightclub
attendees**

NDARC Technical Report No. 209

**DRIVING AND CLUBBING IN
VICTORIA:
A STUDY OF DRUG USE AND RISK
AMONG NIGHTCLUB ATTENDEES**

Louisa Degenhardt, Paul Dillon, Cameron Duff and Joanne Ross

National Drug and Alcohol Research Centre
and the Australian Drug Foundation

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACON	AIDS Council of NSW
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AGAL	Australian Government Analytical Laboratories
ATSI	Aboriginal and Torres Strait Islander
BBV	Blood borne virus
FDS	Family Drug Support
GHB	Gamma-hydroxybutyrate
HBV	Hepatitis B virus
HCV	Hepatitis C virus
IDRS	Illicit Drug Reporting System
LSD	<i>d</i> -lysergic acid
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine
NDARC	National Drug and Alcohol Research Centre
NDS	National Drug Strategy
NSW	New South Wales
PDU	Party Drug User(s)

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EXECUTIVE SUMMARY

'Ecstasy' (3,4-methylenedioxymethamphetamine or MDMA) was originally synthesised in 1914, but has recently gained popularity as a drug often associated with the nightclub and dance party scene. The prevalence of ecstasy use has been increasing steadily within Australia since 1995 when 1.7% of people aged over 14 reported ever using the drug. In 2001, 6.1% of Australians aged 14 years or older reported lifetime ecstasy use, and 2.9% reported recent use. One in 10 (10.4%) of 20-29 year-olds and 5.0% of 14-19 year-olds had used ecstasy recently (AIHW, 2002).

Research has shown that ERDs are mostly taken in the dance/nightclub environment where the stimulant and hallucinogenic effects are best appreciated (Degenhardt et al., 2004, White et al., 2004). The majority of these venues have limited opening hours and as some of the effects of ERDs can last for a considerable amount of time it can be assumed that patrons may still be under the influence of drugs at closing time and as they head home. This is supported by the practice of post clubbing 'chill outs' or 'recoveries'. Once a venue closes, groups of friends/clubbers congregate at a designated person's home. Softer 'chill out' music is played, often in conjunction with further drug taking (Mixmag, 1999).

There is little literature on the effect of ERDs on driving, with much more research required in order to increase understanding of the impairing effects of these drugs. Therefore reviews undertaken so far have focused on studies which have investigated prevalence in various other populations or which have looked at the effects of the drugs on cognition, and extrapolate from these to the likely effects on driving (Akram and Forsyth, 2000, European Monitoring Centre for Drugs and Drug Addiction, 1999). However, given the known side effects of these drugs, particularly their perception and cognition altering effects (often regarded as positive by ERDs users), it is likely that they constitute a danger where driving is concerned, particularly during the initial intoxication period.

Both impaired driving and being a passenger of an impaired driver appear to be common occurrences among dance party attendants. A recent Australian study of 216 ecstasy users

found about half of the sample (49%) admitted to having driven a motor vehicle shortly after ecstasy use, and half of this subgroup (49%) believed that the drug had a detrimental influence on driving ability (Gascoigne et al., 2004).

In response to concerns about the occurrence of illicit drug use among drivers, in December 2003, the Victorian Government passed legislation that would allow the conduct of random roadside testing. This was to be completed by means of a saliva test, for two illicit drugs: THC (the main active ingredient of cannabis) and methylamphetamine (a drug variously sold as “speed” methamphetamine powder, “base” methamphetamine, or “crystal” methamphetamine).

The test is designed to detect the presence of drugs recently consumed (rather than, for example, metabolites of the drugs that might remain in the body after the user’s driving performance may no longer be affected). Roadside saliva screening for illicit drugs was begun in Victoria in late 2004. To ensure that a review of the new legislation is undertaken, the provisions in the legislation provide that the new drug driving offences will sunset on 1 July 2005. Prior to this date, a review of the operation of the roadside drug screening process is being conducted.

Although the legislation allows for random testing, in fact Victorian Police operational guidelines will target drug screening at locations where high-risk drivers are likely to be present. Targeting operations to times and locations where there is a high risk of drug impaired driving, such as nightclub areas in the early hours of the morning, is believed to minimise impact on the average responsible driver.

In anticipation of the introduction of roadside saliva testing in Victoria, this study was conducted in April-July 2004 to examine the prevalence of illicit drug use among nightclub attendees in Melbourne, Victoria; their transport methods; and their histories of drug use and driving. A subsidiary aim of this study was to establish a “baseline” against which future studies might be able to compare drug use and driving behaviour *after* the introduction of testing.

In total, 273 persons were interviewed for the study. Two thirds of the sample was male (63%) and they were, on average, 22 years old (Table 1). Most were single (84%), with

15% reporting that they were currently married or in a defacto relationship. Eight in ten of the sample (81%) reported that they had completed high school.

Drug use was common among this sample. One in five of the sample reported that they had or intended to use cannabis (22%) and ecstasy (18%) on the night of interview. One in eight (13%) reported speed use, and 6% reported either having used or intending to use crystal/base methamphetamine. Almost two thirds reported they had or intended to consume alcohol (61%).

Participants reported a variety of means of transport to the venue in which they were interviewed. Most commonly, another person was reported to be the driver, both to (53%) and from (45%) the venue. Around one in three, however, reported that they had driven themselves there and would drive themselves home from the venue. Other modes of transport were nominated in a minority of cases, with taxis slightly more often caught home (16%) than to (6%) a venue.

Overall, around one in ten participants reported that *on the night of interview*, they would knowingly either drive or be driven by someone under the influence of alcohol (10%), cannabis (11%) and/or methamphetamine (8%).

Seven in ten (70%) participants reported that they had heard of roadside drug testing (Table 6). Many participants correctly thought that the test would detect methamphetamine (48%) and cannabis (59%). There was some error in the drugs that participants thought could be detected by the test, however: around one in three thought that the test could also detect heroin (38%) and cocaine (30%). The majority of the sample reported that they supported the concept of roadside drug testing, with two in three reporting that they supported it (65%).

All participants were asked if roadside drug testing would change their clubbing and driving behaviour. Four in ten reported that it *would* change their behaviour: 10% reported that they wouldn't use drugs if planning to drive, 10% reported that they would wait 2-3 hours before driving after taking drugs, and 19% reported that they would not drive if they were clubbing. Among the 19% who would not drive if taking drugs, 9%

reported they would catch a taxi, 4% reported that they would get someone else to drive them, and 3% said that they would catch public transport.

The Victorian Government supports a 'harm minimisation' approach to drug use. This legislation is designed to focus on road safety and prevention, rather than drug detection, aiming to deter Victorian drivers who have recently used cannabis and methamphetamine from driving a vehicle, based on the possibility of getting caught. This model is based on that of the RBT for alcohol. Research has shown that a successful RBT campaign relies heavily on its ability to be highly visible and threatening to the general community. It must be unpredictable, difficult to evade, rigorously enforced, have consequences, and be coordinated with supporting mass media campaigns. Unlike RBT, roadside saliva screening is more labour intensive and costly, as a result it is highly doubtful that the campaign will have the reach and visibility of its predecessor. The Victorian Police plans to target operations to areas such as nightlife entertainment precincts or close to rave/dance party events to ensure greater visibility is far more likely to have an impact on clubbers and their behaviour than random testing.

The findings of the current study suggest that the introduction of roadside drug testing in Victoria may have positive impacts upon drug use and driving risk behaviours among a sample of young persons attending nightclubs. It will be of interest to examine whether such persons' *intentions* to change their behaviours are borne out once such testing is introduced in the coming months.

However, the success and continued impact of the campaign amongst young clubbers will be dependent on ensuring that testing is just part of the overall program. Information provision and increasing the transport options for young people will also play a part in reducing the number of young clubbers who use drugs and drive.

1. INTRODUCTION

1.1. Ecstasy and related drug (ERD) use in Australia

'Ecstasy' (3,4-methylenedioxymethamphetamine or MDMA) was originally synthesized in 1914, but has recently gained popularity as a drug often associated with the nightclub and dance party scene. The prevalence of ecstasy use has been increasing steadily within Australia since 1995 when 1.7% of people aged over 14 reported ever using the drug. In 2001, 6.1% of Australians aged 14 years or older reported lifetime ecstasy use, and 2.9% reported recent use. One in 10 (10.4%) of 20-29 year-olds and 5.0% of 14-19 year-olds had used ecstasy recently (AIHW, 2002).

In reality, drugs sold and consumed as ecstasy could contain any combination of a number of substances that may or may not be related to MDMA. For the purposes of this report, the term ecstasy is used on the understanding that drugs consumed as "ecstasy" may not be MDMA or even one of its analogues.

Ecstasy users often use a variety of other drugs in conjunction with their drug of choice. A study conducted for the Australian National Drug Law Enforcement Research Fund (NDLERF), the Party Drugs Initiative (PDI), monitors ecstasy and related drugs (ERDs) markets across all states and territories of the country (Breen et al., 2004). In the 2003 PDI, ecstasy users were characterized as extensive polydrug users, half of whom nominated ecstasy as their favourite or preferred drug (Breen et al., 2004). On average, participants had used ten drugs in their lifetime and had used seven in the preceding six months. Almost all reported lifetime use of alcohol, cannabis, tobacco and methamphetamine powder (speed).

The prevalence and frequency of use of other drugs associated with the nightclub/party culture such as ketamine, GHB (gamma hydroxybutyrate) and MDA stabilised in 2003 which may suggest that while substantial minorities continue to report recent and lifetime use of these drugs, there are relatively few regular users who have access to these drugs. They may not be as widely or consistently available as ecstasy and therefore the use of

these drugs may be opportunistic in nature. This was reflected in the relatively low frequency of use of these drugs with most recent users report using less than monthly.

Research has shown that ERDs are mostly taken in the dance/nightclub environment where the stimulant and hallucinogenic effects are best appreciated (Degenhardt et al., 2004, White et al., 2004). The majority of these venues have limited opening hours and as some of the effects of ERDs can last for a considerable amount of time it can be assumed that patrons may still be under the influence of drugs at closing time and as they head home . This is supported by the practice of post clubbing ‘chill outs’ or ‘recoveries’. Once a venue closes, groups of friends/clubbers congregate at a designated person’s home. Softer ‘chill out’ music is played, often in conjunction with further drug taking (Mixmag, 1999).

1.2. ERD use and its effects upon driving

There is little literature on the effect of ERDs on driving, with much more research required in order to increase understanding of the impairing effects of these drugs. Therefore reviews undertaken so far have focused on studies which have investigated prevalence in various other populations or which have looked at the effects of the drugs on cognition, and extrapolate from these to the likely effects on driving (Akram and Forsyth, 2000, European Monitoring Centre for Drugs and Drug Addiction, 1999).

To date, no studies have directly examined MDMA effects on driving performance. In respect to other ERDs, experimental studies suggest that low doses of amphetamines have few effects on cognitive functioning and may even result in an enhancement of some driving-related psychomotor tasks (Hurst, 1987, European Monitoring Centre for Drugs and Drug Addiction, 1999). However, higher doses appear to increase risk-taking and result in inappropriate and dangerous driving behaviour, such as speeding and carelessness (Albery et al., 1998, European Monitoring Centre for Drugs and Drug Addiction, 1999). Studies of cocaine use also indicate little impact on various driving-related skills at low dose levels but increases in impairment with higher doses and during periods of withdrawal (Albery et al., 1998). According to Siegel (1987), perceptions of

overconfidence, grandiosity and increased risk-taking thresholds induced by the consumption of cocaine may be expected to affect driving behaviour.

However, given the known side effects of these drugs, particularly their perception and cognition altering effects (often regarded as positive by ERDs users), it is likely that they constitute a danger where driving is concerned, particularly during the initial intoxication period.

The stimulant effects of some ERDs can lead to heightened alertness and confidence and this may in turn lull users into a false sense of security regarding their actual levels of impairment. Some may believe they are in control and able to drive a motor vehicle after a night of drug taking. This confidence, and the fact that they may not have drunk alcohol, are all factors taken into consideration when making the decision to drive (Akram and Forsyth, 2000).

1.3. Drug driving among nightclub attendees

Both impaired driving and being a passenger of an impaired driver appear to be common occurrences among dance party attendants. In a study of rave attendees in Perth, 80% reported having recently driven to or having been driven by another person to a rave (Lenton and Davidson, 1999). Of these people, 45% reported that the driver had not been under the influence of a drug, 30% reported that the driver had used a drug but was 'OK' and 12% reported that the driver was definitely under the influence of a drug. Twelve per cent of respondents reported having taken drugs in the car on the way to their latest rave. Eighty seven per cent of those who reported driving or being driven home from their last rave stated that the driver had used some kind of intoxicant that night. Thirty five per cent of these respondents stated that the driver was still under the influence of drugs and/or alcohol or was so tired they were falling asleep at the wheel.

Impaired driving was also common amongst people attending discos in Germany (Vollrath and Widera, 2000). Researchers surveyed drivers as well as obtaining blood, urine or breath samples. Alcohol was prevalent amongst this population, detected in 30%

of people driving that night. Drugs were also common, with some form of drug (other than alcohol) detected in 13% of people driving that night.

In research designed to inform the Scottish Road Safety Campaign on appropriate future publicity initiatives, qualitative studies involving attendees at nightclubs and dance events were conducted (Neale et al., 2001). Drug driving was found to be commonplace amongst those attending dance/nightclubs. Of those interviewed, 85% reported ever driving after recreational drug use and 31% said that they did so on at least a weekly basis. In relation to driving after ecstasy, interviewees often reported negative experiences such as blurred vision, impaired concentration, propensity to speed and slower reaction times. Although no individual felt that amphetamine consumption had had a beneficial effect on their driving, some felt that their driving was little affected while others were convinced that their driving had been impaired. Whilst the effects of driving after cocaine were described as mixed, driving after LSD was universally considered extremely dangerous (Neale et al., 2001).

Somebody who had taken illicit drugs had driven 87% of the interviewed clubbers, and 31% said they did this on a monthly basis (Neale et al., 2001). Some of the reasons given for accepting a lift with a drug-driver (despite sometimes being afraid to do so) included the cost and limited availability of alternative transport at the time and trusting others' judgement about their ability to drive.

A recent Australian study of 216 ecstasy users found about half of the sample (49%) admitted to having driven a motor vehicle shortly after ecstasy use, and half of this subgroup (49%) believed that the drug had a detrimental influence on driving ability (Gascoigne et al., 2004). A substantial minority felt that ecstasy had no influence on their ability to drive (38%), while the remainder (12%) felt that ecstasy increased their ability to drive. A small number of participants (3%) had actually experienced a road accident shortly after ecstasy use, where they were the driver at fault.

Akram and Forsyth (2000) concluded that although the number of people shown to drive after taking ERDs from the literature is small it should not be construed that this is a low level activity. They commented that the majority of studies available are at least 10 years old and that the situation has changed dramatically since that time.

The Independent Drug Monitoring Unit (IDMU) has been conducting surveys of drug users in the UK since 1982. They have developed a database of over 15,000 regular drug users. Drugs and driving is one of the issues covered in these surveys. The IDMU studies suggest regular ecstasy use to be associated with higher risks of accidents among drug-using drivers, however the authors hypothesize that this may be due to the greater likelihood of ecstasy users driving in the early hours of the morning when they would otherwise be fatigued in any event (Independent Drug Monitoring Unit, 2004).

Their studies also suggest that ecstasy use may be a significant causal factor in road traffic accidents, as regular users have reported significantly higher accident rates than non-users or users of other drugs. The authors believed further research was required into the effects of ecstasy on driving simulator performance and in actual driving situations, as no published studies appear available.

1.4. Law enforcement responses

Random breath testing (RBT) was first introduced in Australia in 1976, with the primary policy focus being prevention rather than detection in the control of drink driving (Moloney, 1994). That is, the introduction of RBT was intended to be as a deterrence measure and contrasted sharply with the earlier and traditional enforcement approach emphasising apprehension and punishment (Homel, 1993). The aim was to produce a highly visible and broadly based enforcement procedure that would deter the community, and more specifically the potential offender, from driving after drinking, based on the possibility of being caught (Homel, 1993). Research evidence supports the concept of deterrence in that individuals who have had recent exposure to RBT, and believe there is a high probability of being caught, are less likely to decide to drink and drive (Harrison, 1996).

Crash data from New South Wales over a 4-year period after the introduction of RBT showed a 36% decrease in alcohol-related fatalities and serious injuries compared to pre-RBT levels (Homel, 1993). Queensland experienced similar results with alcohol-related

fatalities falling by 29% during the 5 years after the introduction of the program (Watson et al., 1995).

Research suggests that maintaining a successful RBT enforcement strategy that fully acts as a deterrence measure is extremely difficult (Homel, 1993). A successful RBT campaign relies heavily on its ability to be highly visible and threatening to the general community. RBT must be unpredictable, difficult to evade, rigorously enforced, have certain and severe consequences, and be coordinated with supporting mass media campaigns (Moloney, 1994, Cavallo and Drummond, 1994).

While the initial introduction of RBT showed significant reductions in drink driving, alcohol-related crashes and non alcohol-related crashes, the ability of RBT to act as a deterrence measure has appeared to decrease, with some experts believing that police do not have the resources to maintain RBT at a sufficiently visible level (Sheehan, 1994).

Increasingly, accidents and driving fatalities involve drug use. Drugs other than alcohol have been detected in approximately 23% of heavy vehicle drivers killed in crashes. In 2001, 16.5% of driver fatalities had used cannabis (THC) or stimulant/amphetamine type drugs, whilst in 2002 this figure had risen to 20.4% of driver fatalities (Swann, 2004).

1.5. Roadside testing initiatives in Victoria

In response to concerns about the occurrence of illicit drug use among drivers, in December 2003, the Victorian Government passed legislation that would allow the conduct of random roadside testing. This was to be completed by means of a saliva test for two illicit drugs: THC (the main active ingredient of cannabis) and methylamphetamine (a drug variously sold as “speed” methamphetamine powder, “base” methamphetamine, or “crystal” methamphetamine).

The test is designed to detect the presence of drugs recently consumed (rather than, for example, metabolites of the drugs that might remain in the body after the user’s driving performance may no longer be affected). Roadside saliva screening for illicit drugs was begun in Victoria in late 2004. To ensure that a review of the new legislation is

undertaken, the provisions in the legislation provide that the new drug driving offences will sunset on 1 July 2005. Prior to this date, a review of the operation of the roadside drug screening process is being conducted.

Although the legislation allows for random testing, in fact Victorian Police operational guidelines will target drug screening at locations where high-risk drivers are likely to be present. Targeting operations to times and locations where there is a high risk of drug impaired driving, such as nightclub areas in the early hours of the morning, is believed to minimise impact on the average responsible driver.

In anticipation of the introduction of roadside saliva testing in Victoria, this study was conducted in April-July 2004 to examine the prevalence of illicit drug use among nightclub attendees in Melbourne, Victoria; their transport methods; and their histories of drug use and driving. A subsidiary aim of this study was to establish a “baseline” against which future studies might be able to compare drug use and driving behaviour *after* the introduction of testing.

1.6. Aims

The aims of the current study were therefore to do the following:

1. Document the demographics and drug use history of nightclub attendees prior to the introduction of roadside drug testing in Victoria;
2. Document the reported ways in which nightclub attendees reported travelling to and from nightclubs;
3. Examine nightclub attendees’ drug driving behaviour and their risk perception of the effects of different drugs upon driving ability; and
4. Document the knowledge of roadside drug testing prior to its introduction by Victorian Police.

2. METHOD

2.1. Questionnaire

A short questionnaire was developed for use in the current study (see Appendix). It was designed to be brief, easily administered within the club setting, and allow participants to self-complete the drug use and driving sections (to enhance valid reports of drug use and driving under the influence).

2.2. Sample and procedure

The questionnaire was administered between April and September of 2004 at four venues in inner city Melbourne, Victoria. Attempts were made to recruit a number of different venues to this study, though the political climate at the time of the research militated against more successful recruitment efforts¹. Notwithstanding these difficulties, four venues agreed to participate in the research: one conventional dance club located in Prahran, and three other mixed venues comprising bars and private lounges across multiple rooms located in the Melbourne CBD. All four settings remain very popular and well established venues in the region.

Data were collected between the hours of 11PM and 3AM at the various venues at approximately fortnightly intervals. A relatively quiet and discrete corner was identified at each venue in which a table and chairs could be arranged to allow interviewers time and privacy to complete the anonymous questionnaire. Research assistants administered the questionnaires face-to-face to ensure that data were collected in a consistent and efficient manner. Participants were offered a drink voucher for a bottle of soft-drink or still water upon completing the interview; an incentive that proved to be very successful. Indeed,

¹ The more widespread emergence of the club drug gamma hydroxybutyrate or GHB in bars and clubs in Melbourne in early 2004 was associated with a number of very public overdoses and much public and political discussion. A number of Melbourne venues were identified in the local press as 'drug clubs' and public and political pressure mounted to close these clubs down. Many club owners and managers approached for this research were reluctant to get involved in a study that was likely to further highlight illicit drug use on their premises and thus declined to participate.

research staff encountered few difficulties recruiting participants to the study, with refusal rates remaining low at each of the four research sites.

2.3. Interviewers

Interviewers were employees of the Australian Drug Foundation and/or students undertaking doctoral studies in psychology at The University of Melbourne. Appropriate training and debriefing was provided for each of the interviewers on site at the Australian Drug Foundation. Interviewers were each provided with a brief subject recruitment statement to ensure that each research participant was able to give informed consent. Research participants were also furnished with information detailing where they could find out more about the project if they desired, in addition to contact details for a free AOD counselling service. A group of three or four interviewers were present at each venue on each data collection episode, with a total of eight interviewers being employed overall.

3. RESULTS

3.1. Demographics and drug use history of the sample

In total, 273 persons were interviewed for the study. Two thirds of the sample was male (63%) and they were, on average, 22 years old (Table 1). Most were single (84%), with 15% reporting that they were currently married or in a defacto relationship. Eight in ten of the sample (81%) reported that they had completed high school.

Table 1: Demographic characteristics of the sample

Mean age (years; range)	22 (18-45)
Male (%)	63
Marital status	
% single	84
% married/defacto	15
% divorced/separated	2
% completed high school	81

Consistent with other research with regular ecstasy users in Melbourne (Johnston et al., 2004), high rates of lifetime use of a range drugs were reported (Table 2). Alcohol use was almost universal (90%). Two thirds of the sample reported that they had used cannabis (72%), ecstasy (67%) or methamphetamine powder (“speed”, 63%) at some point. Almost half reported crystal or base methamphetamine use (42%) and cocaine use (42%).

Recent (past month) drug use was also quite high (Table 2). Just under half of the sample reported having used cannabis (45%) and ecstasy (44%) within the past month; one third reported speed use (35%). Around one in six reported using crystal or base

methamphetamine (16%) and cocaine (17%) within the past month. Eight in ten reported past month alcohol use (79%).

One in five of the sample reported that they had or intended to use cannabis (22%) and ecstasy (18%) on the night of interview (Table 2). One in eight (13%) reported speed use, and 6% reported either having used or intending to use crystal/base methamphetamine. Almost two thirds reported they had or intended to consume alcohol (61%).

Table 2: Drug use history of the sample

	% ever ¹	% past month ¹	% on night of interview ¹
Alcohol	90	79	61
Cannabis	72	45	22
Ecstasy	67	44	18
Methamphetamine powder (Speed)	63	35	13
Crystal, ice, base methamphetamine	42	16	6
Cocaine	44	17	9
Heroin	19	5	2

1. Percentages refer to those who commented.

3.2. Driving and drug use

Nine in ten (91%) participants reported that they had ever driven a vehicle, and 85% currently had a driver's licence. Almost one in five (17%) reported that they had driven without a valid licence within the past year. Almost half of the sample reported having had an accident while driving (44%), and one in eight (12%) reported that they had had an accident while under the influence of drugs.

Participants reported a variety of means of transport to the venue in which they were interviewed (Table 3). Most commonly, another person was reported to be the driver, both to (53%) and from (45%) the venue. Around one in three, however, reported that

they had driven themselves there and would drive themselves home from the venue. Other modes of transport were nominated in a minority of cases, with taxis slightly more often caught home (16%) than to (6%) a venue.

Table 3: Participants' modes of transport to and from nightclub venues

	% to venue	% from venue
Drive self	32	30
Driven by another	53	45
Taxi	6	16
Public transport	7	3
Walking	2	3
Other	1	3

The majority of the sample reported that they had driven under the influence of alcohol or other drugs at some point in their lives (Table 4). The most commonly reported drugs were alcohol (57%) and cannabis (52%). Almost half reported that they had driven under the influence of ecstasy (43%) or speed powder (42%) at some time. One in five reported having driven under the influence of crystal methamphetamine (26%) or cocaine (28%).

In the past month, one in four persons reported that they had driven under the influence of alcohol (26%) or cannabis (28%). One in five reported that they had driven under the influence of methamphetamine (speed or crystal/base; 20%) or ecstasy (19%). Smaller numbers reported that they had or intended to drive under the influence of alcohol or other drugs on the night of interview (Table 4).

Table 4: Driving under the influence of drugs

	% ever	% past month	% on night of interview
Alcohol	57	26	6
Cannabis	52	28	7
Ecstasy	43	19	5
Methamphetamine powder (Speed)	42	18	5
Crystal, ice, base methamphetamine	26	7	3
Cocaine	28	8	4
Heroin	12	2	2

1. Percentages refer to those who commented; n=22 missing responses.

Table 5 shows that the reported lifetime rates of being driven by another person who was under the influence of drugs were similarly high. Three quarters reported having been driven by someone under the influence of alcohol (76%), with two thirds reporting that someone had driven them under the influence of cannabis (69%). Over half reported having been driven by someone under the influence of ecstasy (60%) or speed powder (56%). Four in ten reported having been driven by someone under the influence of crystal methamphetamine (39%) or cocaine (37%). Almost one in five reported having been driven by someone under the influence of heroin (18%).

Past month rates were lower, but it remained the case that around one third of the sample reported that they had been driven by someone under the influence of alcohol, cannabis, or ecstasy in the past month. The reported rates of being driven by someone under the influence of alcohol or other drugs on the night of interview were of the same magnitude as for reports of being the driver on the night of interview.

Table 5: Experience of being a passenger of a driver under the influence of drugs

	% ever ¹	% past month ¹	% on night of interview ¹
Alcohol	76	35	6
Cannabis	69	37	6
Ecstasy	60	29	5
Methamphetamine powder (Speed)	56	24	4
Crystal, ice, base methamphetamine	39	13	2
Cocaine	37	13	4
Heroin	18	6	2

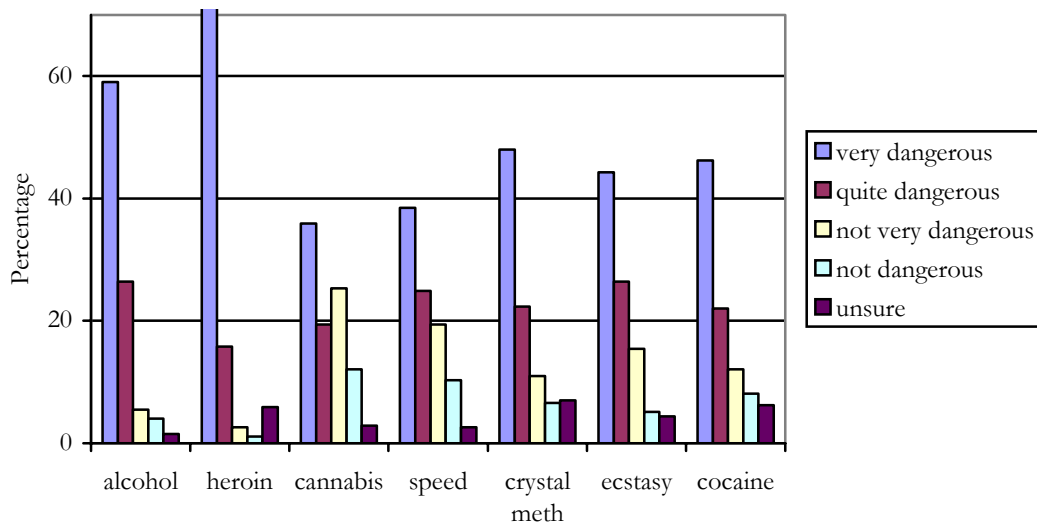
1. Percentages refer to those who commented; n=20 missing responses.

Overall, around one in ten participants reported that *on the night of interview*, they would knowingly either drive or be driven by someone under the influence of alcohol (10%), cannabis (11%) and/or methamphetamine (8%).

3.3. Risk perception

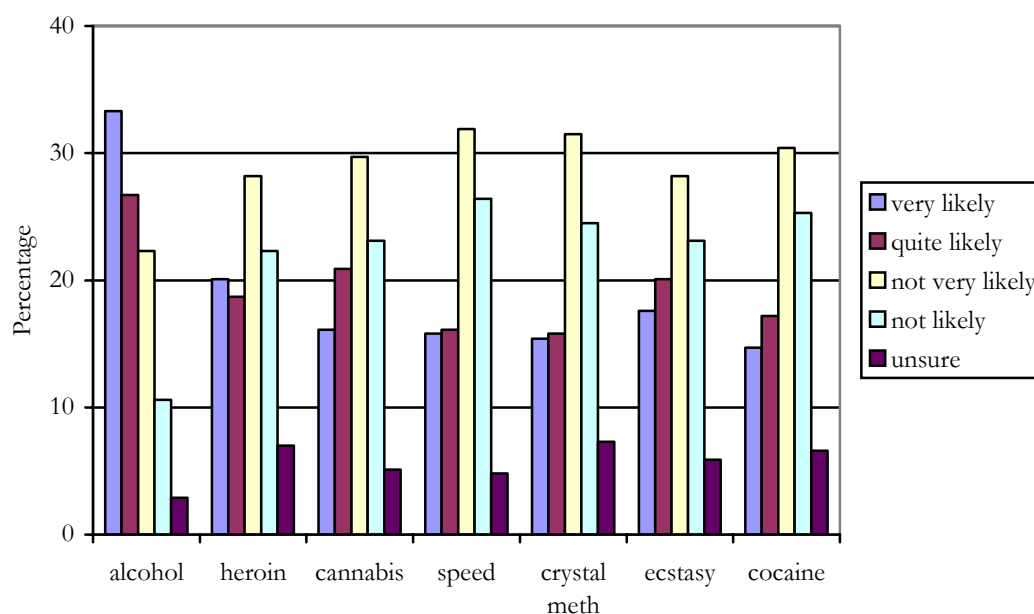
Figure 1 presents the perceived risks of driving under the influence of a range of drug types. As can be seen, high proportions of the sample perceived that driving under the influence of heroin (71%) or alcohol (59%) was “very dangerous”. Just under half of the sample thought that driving under the influence of crystal methamphetamine (48%), cocaine (46%) or ecstasy (44%) was very dangerous, with 39% viewing speed as very dangerous. A smaller proportion - one in three of the sample (36%) - viewed driving under the influence of cannabis in this way.

Figure 1: Participants' perceptions of risk associated with driving under the influence of drugs



Perhaps not surprisingly given that random roadside testing for alcohol is well-established in Victoria, the drug for which participants thought there was the highest risk of detection if driving under the influence was alcohol: around one third each reported that it was very likely (33%) or quite likely (27%) that an individual would be detected if driving under the influence (Figure 2). Participants were more likely to report that it was “not very likely” or “not likely” that someone would be caught if driving under the influence of stimulant drugs, such as speed (58%), crystal methamphetamine (57%), ecstasy (51%) or cocaine (55%). Just over half of the sample reported that they thought it was not likely or not very likely that persons driving under the influence of cannabis would be caught (52%).

Figure 2: Participants' perceptions of risk of being caught under the influence of drugs if driving home on the night of interview



3.4. Roadside drug testing

Seven in ten (70%) participants reported that they had heard of roadside drug testing (Table 6). Many participants correctly thought that the test would detect methamphetamine (48%) and cannabis (59%). There was some error in the drugs that participants thought could be detected by the test, however: around one in three thought that the test could also detect heroin (38%) and cocaine (30%). The majority of the sample reported that they supported the concept of roadside drug testing, with two in three reporting that they supported it (65%).

All participants were asked if roadside drug testing would change their clubbing and driving behaviour (Table 6). Four in ten reported that it *would* change their behaviour: 10% reported that they wouldn't use drugs if planning to drive, 10% reported that they would wait 2-3 hours before driving after taking drugs, and 19% reported that they would not drive if they were clubbing. Among the 19% who would not drive if taking drugs, 9% reported they would catch a taxi, 4% reported that they would get someone else to drive them, and 3% said that they would catch public transport.

Table 6: Understanding of roadside drug testing and its effects upon nightclub attendees' intentions to drive

% who had heard of the test	70
% reporting ¹ the test could detect...	
alcohol	55
heroin	38
ecstasy (MDMA)	56
methamphetamine	48
cannabis	59
cocaine	30
% reporting they supported the test	65
% reporting the test would change their clubbing and driving behaviour...and they would....	39
wait 2-3 hours before driving	10
not drive if they were clubbing	19
... <i>organise another driver</i>	4
... <i>get a taxi</i>	9
... <i>catch public transport</i>	3
not use drugs if clubbing and planning to drive	10

1. Percentages refer to those who commented.

4. DISCUSSION

The participants interviewed for this study were often male, young adults who were usually single. Most had completed secondary education. Most of this sample had a driver's licence (85%), and the majority reported either being driven or driving to and from the nightclub on the night of interview.

Consistent with other research with regular ecstasy users in Melbourne (Johnston et al., 2004), the persons interviewed in the current study reported relatively high rates of illicit drug use in their lifetime, as well as recently. One in five of the sample reported that they had or intended to consume cannabis or ecstasy on the evening of interview, with one in eight reporting that they had or would consume methamphetamine.

Perhaps not surprisingly given the relatively high rates of drug use among this sample, significant proportions reported that they had driven under the influence of a range of licit and illicit drugs at some point in their lives, with significant minorities reporting that they had done so within the past month. These findings suggest that there is a high likelihood that a significant proportion of nightclub attendees in Melbourne place themselves and others at risk when driving under the influence of alcohol and illicit drugs.

It was of interest to discover that many participants reported having heard of roadside drug testing, and moreover, that two thirds supported its introduction. Perhaps most importantly, four in ten of the sample reported that they would consider changing their clubbing and driving behaviour with the introduction of roadside drug testing. It is important to remember that for most of those who reported that their behaviour would change, it did not mean that their drug use patterns would be altered. Most reported that they would either not drive (19%) or simply wait two to three hours before driving after they had consumed drugs (10%). Nevertheless, one in ten (10%) did report that if they were intending to drive, they would not consume illicit drugs. Regardless of this, it must be acknowledged that these responses are suggestive of reductions in this risk behaviour among a sample of persons likely to be otherwise placing themselves and others at risk.

The Victorian Government supports a 'harm minimisation' approach to drug use. This legislation is designed to focus on road safety and prevention, rather than drug detection, aiming to deter Victorian drivers who have recently used cannabis and methamphetamine from driving a vehicle, based on the possibility of getting caught. This model is based on that of the RBT for alcohol. Research has shown that a successful RBT campaign relies heavily on its ability to be highly visible and threatening to the general community. It must be unpredictable, difficult to evade, rigorously enforced, have consequences, and be coordinated with supporting mass media campaigns. Unlike RBT, roadside saliva screening is more labour intensive and costly, as a result it is highly doubtful that the campaign will have the reach and visibility of its predecessor. The Victorian Police plans to target operations to areas such as nightlife entertainment precincts or close to rave/dance party events to ensure greater visibility is far more likely to have an impact on clubbers and their behaviour than random testing.

Information provision is important, because many ERDs users appeared to be unaware of the time it takes for a drug to be detected in the system. Ten per cent of the sample reported that they would wait two to three hours before driving after they had consumed drugs so as to avoid detection. In reality, methamphetamine may be detected for approximately 24 hours or more after use, with larger doses, or other drugs being taken at the same time, as well as differences in individual metabolism affecting the duration of effect, as well as the time period they may be detected. Media campaigns outlining not only the effects of drugs on driving behaviour, which the research would indicate is inconclusive at best, but also how long the drug can be detected in the system may add to the deterrent effect of the roadside drug testing.

Previous research has shown that two of the reasons offered for driving after using drugs include the cost and limited availability of alternative transport options. This has been reflected in this study, where it would appear some clubbers *would* alter their behaviour if they believed there was the possibility they could be caught, depending on the options that are available to them. Organising another driver, using a taxi or another form of public transport, all depend upon availability and cost. Most nightclub areas are in the inner city areas of cities and public transport is limited at best in the early hours of the morning and can be extremely expensive. These limit the options that young clubbers

have at their disposal, and may explain why so many drive after taking drugs, or are driven by others who make that choice.

4.1. Conclusions

The findings of the current study suggest that the introduction of roadside drug testing in Victoria may have positive impacts upon drug use and driving risk behaviours among a sample of young persons attending nightclubs. It will be of interest to examine whether such persons' *intentions* to change their behaviours are borne out once such testing is introduced in the coming months.

However, the success and continued impact of the campaign amongst young clubbers will be dependent on ensuring that testing is just part of the overall program. Information provision and increasing the transport options for young people will also play a part in reducing the number of young clubbers who use drugs and drive.

REFERENCES

- AIHW (2002). 2001 National Drug Strategy Household Survey. Australian Institute of Health and Welfare, Canberra.
- Akram, G. and Forsyth, A. J. M. (2000). Speed freaks? A literature review detailing the nature and prevalence of dance drugs and driving. *International Journal of Drug Policy*, **11**, 265-277.
- Albery, I., Gossop, M. and Strang, J. (1998). Drivers who use illicit drugs: behaviour and perceived risks. *Drugs: Education, Prevention and Policy*, **7**, 39-50.
- Breen, C., Degenhardt, L., White, B., Bruno, R., Chanteloup, F., Fischer, J., Moon, C., Proudfoot, P., Richards, J., Ward, J. and Weekley, J. (2004). Australian Party Drug Trends 2003. Findings from the Party Drugs Initiative (PDI). National Drug and Alcohol Research Centre, University of NSW, Sydney.
- Cavallo, A. and Drummond, A. (1994). Evaluation of the Victorian random breath testing initiative. In *Proceedings of the Australasian Drink-Drive Conference*, pp. 9-19.
- Degenhardt, L., Barker, B. and Topp, L. (2004). Patterns of ecstasy use in Australia: Findings from a national household survey. *Addiction*, **99**, 187-195.
- European Monitoring Centre for Drugs and Drug Addiction (1999). Literature Review on the Relation between Drug Use, Impaired Driving and Traffic Accidents. EMCDDA, Lisbon.
- Gascoigne, M., Copeland, J. and Dillon, P. (2004). Ecstasy and the concomitant use of pharmaceuticals. NDARC Technical Report No. 201. National Drug and Alcohol Research Centre, University of NSW, Sydney.
- Harrison, W. A. (1996). An exploratory investigation of aspects of drink-driving and enforcement in rural areas of Victoria. Report No. 93. Monash University Accident Research Centre, Melbourne, Australia.
- Homel, R. (1993). Random breath testing in Australia: Getting it to work according to specifications. *Addiction*, **88**, 27S-33S.
- Hurst, P. M. (1987). Amphetamines and driving. *Alcohol, Drugs and Driving*, **3**, 13-17.
- Independent Drug Monitoring Unit (2004). Ecstasy and driving ability. Vol. 2004 IDMU.
- Johnston, J., Laslett, A. M., Jenkinson, R., Miller, P. and Fry, C. (2004). Victorian Party Drug Trends 2003: Findings of the Party Drugs Initiative (PDI). National Drug and Alcohol Research Centre, Sydney.
- Lenton, S. and Davidson, P. (1999). Raves, drugs, dealing and driving: Qualitative data from a West Australian sample. *Drug and Alcohol Review*, **18**, 153-161.
- Mixmag (1999). Happy Sundays. In *Mixmag*, Vol. 96, pp. 69-73.
- Moloney, M. (1994). Management of RBT operations in Victoria. In *Proceedings of the Australasian Drink-Drive Conference*, pp. 71-83.
- Neale, J., McKeganey, N. and Hay, G. (2001). Recreational drug use and driving: A qualitative study. The Scottish Executive Central Research Unit, Glasgow.
- Sheehan, M. (1994). Alcohol controls and drink-driving: The social context. FORS Monograph CR 142. Vol. 3 AGPS, Canberra, Australia, pp. 1-8.
- Siegel, R. K. (1987). Cocaine use and driving behaviour. *Alcohol, Drugs and Driving*, **3**, 1-8.
- Swann, P. (2004). Saliva testing for Illicit drugs: New drug legislation. TWU Victoria/Tasmania Branch, Melbourne.
- Vollrath, M. and Widera, T. (2000). Alcohol and illegal drug use while driving by recreational drug users in Germany. In *International Conference on Alcohol, Drugs and Traffic Safety* Stockholm.

- Watson, B., Fraine, G. and Mitchell, L. (1995). Enhancing the effectiveness of RBT in Queensland. In *Prevention of Alcohol Related Road Crashes: Social and Legal Approaches Conference 1994*(Ed, School of Justice Administration, G. U.) Brisbane, Australia, pp. 31-49.
- White, B., Breen, C. and Degenhardt, L. (2004). New South Wales Party Drug Trends 2003: Findings from the Party Drugs Initiative. National Drug and Alcohol Research Centre, University of NSW, Sydney.

APPENDIX – QUESTIONNAIRE USED IN THE STUDY

**National Drug and Alcohol Research Centre
University of New South Wales**

DRIVING AND CLUBBING QUESTIONNAIRE

Demographics

1. Sex:

Male 1.
Female.....0

2. Age _____ years

3. Marital status:

Single1
Married/Defacto 2
Divorced/separated3

4. How many years of high school education did you complete? _____ years

5. Residential postcode _____

Driving history

1. Have you ever driven a vehicle (car, truck, bus, motorbike, etc)?

Yes.. 1
No.....0

If yes, how old were you when you first drove a vehicle? _____ years

2. Have you ever had a drivers licence?

Yes.. 1
No.....0

3. In what year did you get your driving licence? _____

4. Do you have a current drivers licence?

Yes.. 1
No.....0

6. Have you driven without a valid licence in the past 12 months?

Yes.. 1
No.....0

7. Have you ever had an accident while driving?

Yes.. 1
No.....0

8. Have you ever been in an accident while driving under the influence of drugs?

Yes.. 1
No.....0

Driving tonight

1. How did you get here tonight?

- I drove here.....1
- I was driven here by someone I know.....2
- I walked here.....3
- I used public transport.....4
- I came in a taxi5
- Other6

2. How are you planning to get home this evening?

- I will drive1
- I will be driven by someone I know.....2
- I will walk.....3
- I will use public transport.....4
- I came in a taxi5
- Other6

3. Have you heard of roadside drug testing?

- Yes..1
- No.....0

We are now going to be asking you about the new roadside saliva drug testing which will be introduced in July 2004.

4. What does it test for?

- Alcohol.....1
- Heroin.....2
- Ecstasy.....3
- Speed.....4
- Cannabis.....5
- Cocaine.....6

5. Do you support this type of roadside drug testing?

- Yes..1
- No.....0

6. Would roadside testing change your clubbing and driving behaviour?

- Yes..1 (Go to Question 7)
- No.....0 (Go to next section)

7. How would roadside testing change your behaviour?

- I would wait 2-3 hours before driving.....1
- I would not drive at all if I was clubbing.....2 (Go to Q8)
- I would not use drugs if I was clubbing and planning to drive.....3

8.If you did not drive because of roadside testing, how would you choose to travel?

THC

1. Do you know what THC is?

Yes.. 1

No.....0

Risk perceptions

1. How dangerous do you think it is for someone to drive if intoxicated with the following drugs?

	Very dangerous	Quite dangerous	Not very dangerous	Not dangerous	Unsure
Heroin					
Alcohol					
Cannabis/THC					
Amphetamines, 'speed'					
'Ice', "base", 'crystal'					
MDMA, ecstasy					
Cocaine					

2. How likely do you think it is that someone would be caught driving after using the following drugs **tonight**?

	Very likely	Quite likely	Not very likely	Not likely	Unsure
Heroin					
Alcohol					
Cannabis/THC					
Amphetamines, 'speed'					
'Ice', "base", 'crystal'					
MDMA, ecstasy					
Cocaine					

Drug use and driving

1. Have you used the following drugs? (If none, go to Q. 4)

	Ever	Past month	Have Taken Tonight or Plan To
Heroin			
Alcohol			
Cannabis/THC			
Amphetamines, 'speed'			
'Ice', 'base', 'crystal'			
MDMA, ecstasy			
Cocaine			

2. Have you driven a vehicle while affected by any of the following drugs?

	Ever	Past month	Have Taken Tonight or Plan To
Heroin			
Alcohol			
Cannabis/THC			
Amphetamines, 'speed'			
'Ice', 'base', 'crystal'			
MDMA, ecstasy			
Cocaine			

3. Have you knowingly been a passenger in a car with someone who was under the influence of the following drugs?

	Ever	Past month	Have Taken Tonight or Plan To
Heroin			
Alcohol			
Cannabis/THC			
Amphetamines, 'speed'			
'Ice', 'base', 'crystal'			
MDMA, ecstasy			
Cocaine			

4. How long do you usually wait after taking the following drugs before driving a vehicle?

Heroin _____ hours

Alcohol _____ hours

Cannabis/THC _____ hours

Amphetamines/Speed _____ hours

Ice/Base/Crystal _____ hours

Ecstasy _____ hours

Cocaine _____ hours