Knowledge, attitudes and behaviours of NSW drug drivers

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Abstract
In December 2006 legislation was introduced giving police the power to test any driver involved in a fatal crash for any drug, and to carry out roadside drug testing on any driver, rider or supervising licence holder in NSW for the active component of cannabis (THC), methylamphetamine (also known as speed, ice, crystal meth, or base) and MDMA (ecstasy). Police have been conducting roadside drug testing since January 2007 on both heavy and light vehicle drivers.

This study examined knowledge, attitudes and self-reported behaviours with regards to drug driving to identify any behavioural shifts following the commencement of roadside drug testing in NSW. It involved a telephone survey of 501 licensed drivers who have used illicit drugs in the past three months. The results indicate a drug driving prevalence rate of 3.6% in NSW, and the majority of drug users (80%) are aware that police have the ability to conduct roadside drug testing. The study investigated demographic predictors of drug driving, knowledge and attitudes with regards to drug driving law enforcement, the types of drugs used by drivers, and attitudes and social acceptability of drug driving.

Keywords
Drug Driving, Impaired Driving.

Introduction

Drug driving is a significant road safety issue in Australia, with the incidence of fatally injured drivers testing positive to drugs other than alcohol being around 30% [1]. Data from the 2001, 2004 and 2007 National Drug Strategy Household Surveys [2,3,4] indicate that drug use and drug driving behaviour may have experienced a slight decline from 2001. The proportion who admitted to driving whilst under the influence of recreational drugs dropped from 3.9% in 2001 to 3.3% in 2004 and 2.9% in 2007.

In response to this road safety issue in New South Wales (NSW) the *Road Transport Legislation Amendment (Drug Testing) Act 2006* was introduced in December 2006. Under this legislation, Police have the power to carry out roadside drug testing (RDT) using oral fluid screening devices on any driver, rider or supervising licence holder in NSW for the following drugs:

- Delta-9-tetrahydrocannabinol (THC), the active component of cannabis.
- Methylamphetamine, also known as speed, ice, crystal meth or base.
- Methylenedioxymethylamphetamine (MDMA), also known as ecstasy.

If the presence of one or more of these drugs is confirmed, the driver is charged with the offence of driving with the presence of an illicit drug. The penalty for a first offence is a maximum fine of $1100 and maximum six months licence disqualification.

The first roadside drug testing police operation was conducted on 22 January 2007. In the period 22 January 2007 to 31 May 2008, there were 82 RDT operations resulting in about 13,000 roadside drug tests. The roll out of drug testing has been conservative to date, with RDT operations increasing more recently.

In support of the introduction of RDT a limited public education campaign was developed. This campaign involved a Roads and Traffic Authority (RTA) brochure titled *Roadside Drug Testing* was disseminated in motor registries and by Police. This brochure outlines the dangers of drug driving, the RDT procedure, and penalties for drug driving. Detailed information about RDT was also placed on the RTA's website including a list of frequently asked questions about the operational police processes involved in the drug testing and the effects of drugs on driving.

In order to assess how the legislation and resulting RDT operations have impacted on drug users knowledge, attitudes and behaviours relating to drug driving, a survey of drug drivers was conducted. This paper summarises the results of the survey which was conducted on behalf of the RTA by Taverner Research Company. It comprises the results of 501 telephone interviews conducted from March to May 2008, with NSW licensed drivers who admitted to using recreational drugs in the previous three months.

This study sought to provide comparative data with an earlier study on drug driving behaviours which was conducted in 2003 prior to the development and implementation of the new drug legislation. The findings of the 2008 study provides a means to observe changes in prevalence of drug driving since the implementation of the new drug testing laws, and to investigate drug users knowledge, attitudes and behaviours relating to drug use and driving.

Methods

In total 10,391 NSW residents who were licensed drivers agreed to participate in the survey from March to May 2008 and were asked the initial screening questions. Of the 10,391 residents, 501 admitted to having taken recreational drugs in the last three months. Of the 501 drug users interviewed, 240 admitted to driving after taking recreational drugs. See Figure 1 for a graphical representation of the survey sample. The survey sample was weighted to reflect the NSW population in terms of gender, age and geographic distribution.

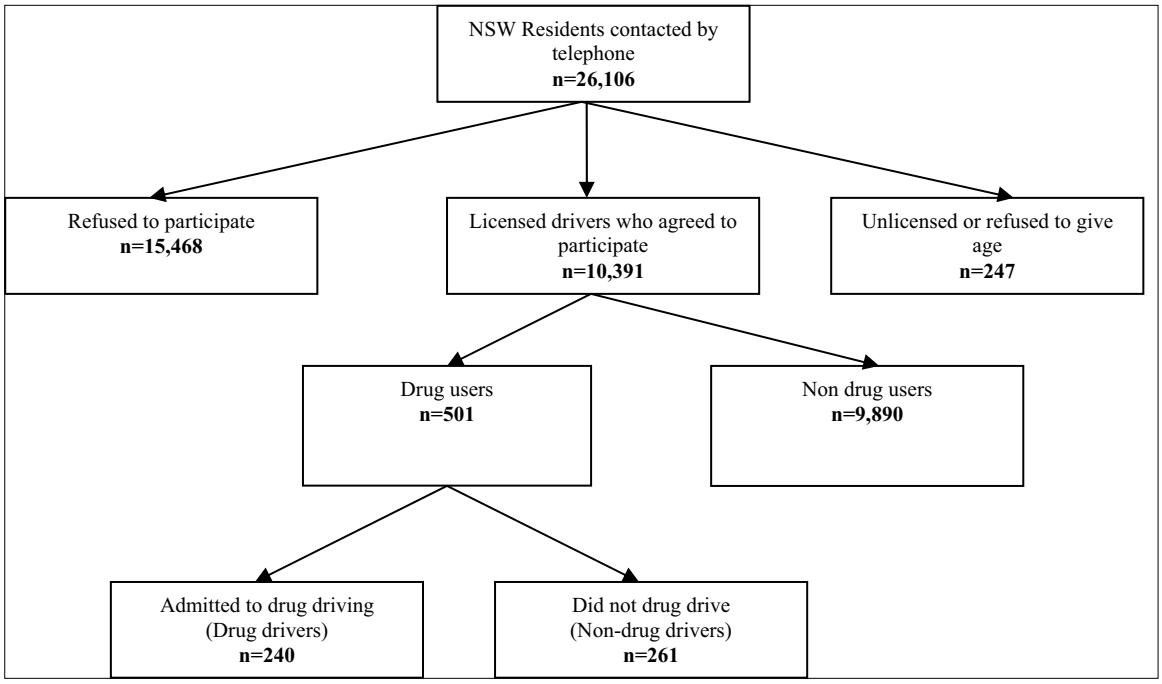

Figure 1: Survey sample (unweighted).

Results

Drug driving prevalence and behaviour

Based on the 10,391 drivers screened across NSW, 6.5% of the NSW driving population admitted to recreational drug use in the last three months. (This represents a decrease in drug use from a rate of 8.9% in 2003). Of these drug users, 55% admitted to driving after taking a recreational drug at least once a year. This represents a prevalence estimate of 3.6% of the NSW population who admitted to drug driving, a 10% decrease from 2003 when the prevalence rate was 4.0%.

Drug use and drug driving rates differed significantly across the NSW regions (see Table 1). While drug driving is not unique to Sydney, the data suggest that it is a significantly greater problem in Sydney than in any other region of NSW with Sydney having the highest rate of drug driving at 4.7% of the Sydney driving population.

Table 1: Drug use and drug driving prevalence by region

Location	Drug use (%)	Drug driving (%)
Sydney	7.8	4.7
Newcastle/Hunter	4.1	2.1
Wollongong/Illawarra	4.9	2.0
Coastal Southern	4.8	1.8
Coastal Northern	6.6	2.7
Inland NSW	2.3	0.2
Far and North West NSW	2.0	1.0
TOTAL	6.5	3.6

Males between the ages of 17 and 29 who lived in a metropolitan location (Sydney, Newcastle, Wollongong) were the most likely group of licensed drivers to drug drive. Key findings regarding risk groups for drug driving include the following:

- Almost one in two drivers who admitted to driving after taking a recreational drug were aged between 21 and 29 years (47% of drug drivers).
- Males between 21 and 25 years made up one in five drug drivers (21%).
- Males aged 26 to 29 were the next largest group contributing to the drug driving population (14%).
- Eight out of ten drug users (79%) and 86% of drug drivers lived in a metropolitan location of NSW.

An age breakdown of drug drivers is shown in Figure 2. The majority of drivers who admitted to driving after taking a recreational drug were aged between 21 and 29 years, the 21 to 25 year age group in particular made up 30% of drug drivers but only 8% of all licensed drivers interviewed. None of the under 17 year old drug users admitted to drug driving.

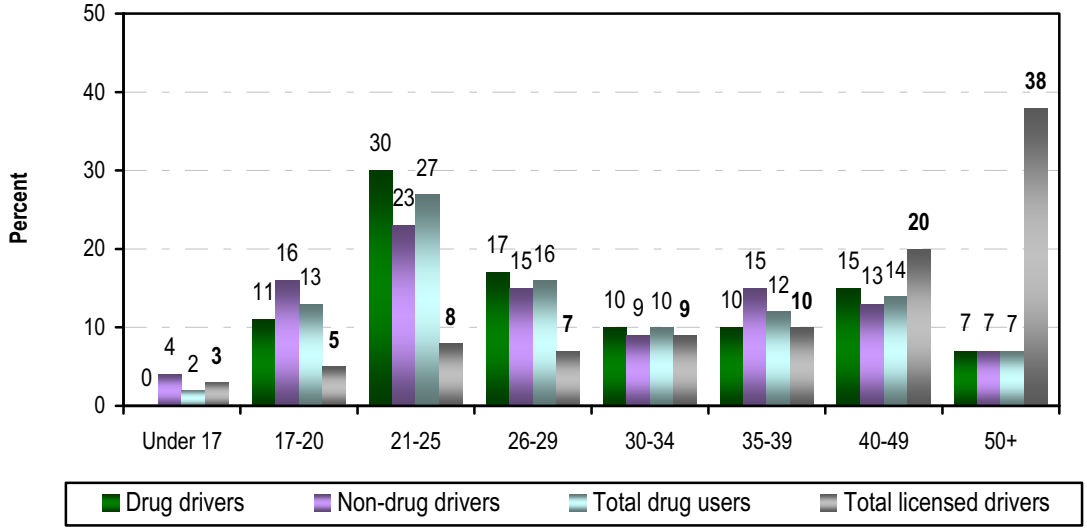

Figure 2: Age distribution of drug drivers, non-drug drivers and drug users compared with licensed drivers

Gender was a strong predictor of drug driving with male drug users significantly more likely to drug drive than female drug users. While males made up 73% of all drug users interviewed, they made up 78% of drug users who admitted to drug driving. Females made up 27% of all drug users interviewed, but only 22% of drug drivers.

Five percent of drug users admitted to drug driving daily, and a total of 29% admitted to drug driving at least once a month. The peak periods for drug driving were Fridays and Saturdays between 9pm and 3am, with 22% of drug driving cases occurring in these periods.

Marijuana was the drug most commonly taken before the last drug driving occasion, nominated by 83% of drug drivers, which is a similar result when compared with 2003. The incidence of taking Ecstasy before driving more than doubled in 2008 (36%) compared with 2003 (15%). The incidence of using Cocaine before driving increased fourfold in 2008 (23%) compared with 2003 (6%).

Drug drivers were asked the main reasons for choosing to drive on the last drug driving occasion. The most common reasons given included that they had no choice or other transport options (29%), or they felt fine and did not see why they should not drive (22%). Other common reasons for choosing to drug drive related to convenience ('Had to get home / to destination / work next day' 19%, 'Quickest way' 17%, 'Convenience/comfort' 7%), because they were a designated driver (13%) and because they didn't want to leave the car (12%).

Drug driving compared to drink driving

About a third (31%) of drug drivers also drank alcohol before drug driving on the last occasion.

Predictably, drug drivers (54%) were significantly more likely than non-drug drivers (7%) to indicate that they would be more likely to drive after taking drugs than after drinking alcohol. Non-drug drivers (83%) were significantly more likely than drug drivers (27%) to indicate that they would not drive at all after either taking drugs or drinking alcohol.

All respondents who said they would be more likely to drive after taking drugs than after drinking alcohol were asked the reasons why they would be more likely to drug drive. The three most common reasons given were that:

- Drugs do not affect their driving (29%).
- Drugs are less dangerous than alcohol (26%).
- They are unlikely to get caught when they drug drive (25%).

Beliefs about enforcement and likelihood of getting caught for drug driving

The majority of drug users (80%) were aware that the police have the ability to conduct roadside drug testing. Drug users who were aware of the existence of roadside drug testing were asked what types of drugs they believed were able to be tested for at the roadside. The majority of respondents believed that Marijuana (88%), Ecstasy (71%) and Speed (72%) were detectable at the roadside (see Figure 3). Respondents were less confident about Cocaine and Heroin, with 24% unsure about whether Cocaine was detectable and 35% unsure about whether Heroin was detectable. However, only 16% correctly indicated that Cocaine was not detectable and 23% indicated Heroin was not detectable at the roadside.

The majority of drug users who were aware of the introduction of roadside drug testing (61%) indicated that it had decreased the likelihood they would drug drive. The high awareness of roadside drug testing may explain the increased belief amongst drug drivers in 2008 (29%) that they would be likely to get caught if they drug drove compared with drug drivers in 2003 (15%). Not surprisingly the belief that they would be likely to get caught has not changed significantly amongst non-drug drivers in 2008 (41%) compared with non-drug drivers in 2003 (36%).

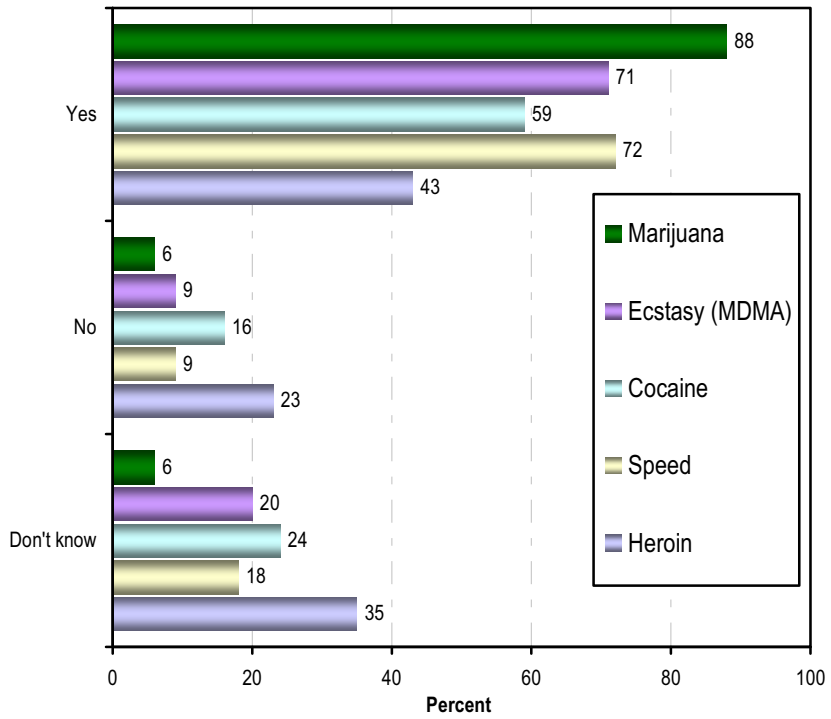

Figure 3: Types of drug detectable at a roadside drug test

Drug users who were aware of roadside drug testing were asked if they or anyone they knew had been tested at the roadside for drugs. There were no significant differences between drug drivers and non-drug drivers in terms of the percentage who had been tested, 4% of drug users indicated that they had personally been tested for drugs. A further 12% had not personally been tested but knew of someone who had. Four per cent of drug users interviewed knew of someone who had returned a positive drug test at the roadside.

Drug drivers differentiated between the different drugs they took in terms of the likelihood of getting caught drug driving under the influence of each drug (see Figure 4). They believed it least likely they would be caught when they were driving under the influence of Cocaine, with 69% of Cocaine users indicating it unlikely they would be caught for drug driving after taking Cocaine. They believed that Marijuana was the next least likely to result in being caught with 62% indicating it unlikely they would get caught drug driving after using Marijuana. Ecstasy had the least optimistic rating, with largest percentage of users believing it likely they would get caught (43%) if they drove after taking ecstasy.

Attitudes and beliefs to drug driving

Unsurprisingly, drug drivers differed significantly from non-drug drivers with regards to their attitudes and beliefs to drug driving. Drug drivers (67%) were less likely to believe that drug driving is unsafe compared to non-drug drivers (91%), and more likely to believe that drugs they took did not diminish their driving ability (32% of drug drivers compared to 10% of non-drug drivers). Drug drivers (17%) were significantly more likely than non-drug drivers (1%) to agree that they like to drive after taking drugs. Non-drug drivers (48%) were significantly more likely than drug drivers (33%) to strongly agree with the statement that they would be ashamed and embarrassed if they were caught drug driving.

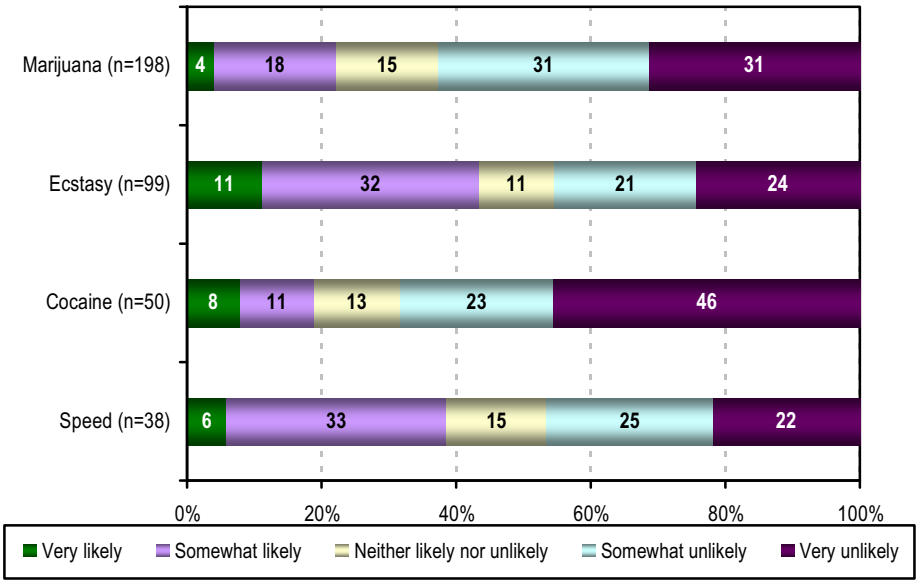

Figure 4: Likelihood of getting caught by the police by most common drugs

Attitudinal changes of drug drivers since 2003 were mainly seen as an increasing sense of social disapproval for drug driving and an increasing level of anxiety about drug driving.

The majority of drug drivers indicated that they felt completely (40%) or generally (29%) comfortable about driving after taking recreational drugs. While the percentage who said they felt completely comfortable had not changed at all since 2003, the percentage who said they were a bit worried in 2008 (27%) doubled compared with 2003 (14%).

The largest attitudinal change between drug drivers in 2008 and 2003 was the agreement levels with the statement that they would feel ashamed and embarrassed if they were caught for drug driving, with drug drivers in 2008 (78%) significantly more likely than drug drivers in 2003 (56%) agreeing or strongly agreeing that they would feel ashamed and embarrassed if caught drug driving.

Cluster analysis

The 501 drug users interviewed were the subject of a cluster analysis. K-means Cluster Analysis was applied to identify homogenous clusters which reflected different attitudes and behaviours to drug driving. Three clusters of drug users were found. The three clusters were differentiated by their tendency to drug drive, defined as either High, Moderate or Low risk drug drivers, although these clusters appear to represent more generic risk profiles of these drug users rather than risk for drug driving specifically. These clusters corresponded closely with the three clusters found in the 2003 drug driving survey, although in 2003 the moderate cluster was defined by their lack of knowledge about the risks of drug driving.

Cluster 1 – High risk drug drivers

The High risk cluster made up 34% of drug users all of which admit to drug driving between three to four times a year. When asked about the likelihood of getting caught when drug driving, they were the least likely cluster to think they would get caught. They were more likely to drive after taking drugs (62%) than after drinking alcohol (10%) and were more likely than other clusters to believe that drug driving was safe (20%) and that the drugs they took did not diminish their driving skills (40%). They were the most likely to admit that they like driving after taking drugs (21%). On average, they took two types of drugs which was more than average (1.7) and more than people in the other two clusters. They were slightly older than the other two clusters with 51% being between 21 and 29 years of age.

Cluster 2 – Moderate risk drug drivers
Unlike the High risk cluster, this cluster were not regular drug drivers with 41% admitting to drug driving up to three or four times a year. The majority (60%) said they were unlikely to drive after taking drugs or alcohol. They often occupied the 'middle ground' between the more polarised views of the High and Lower risk clusters, particularly with regard to their attitudes to the risks of drug driving. They were more likely to think they would get caught for drug driving, only 4% believed drug driving was safe (compared with 20% of the High risk cluster) and15% believed the drugs they took did not diminish their driving ability. They cared about the opinions of their peers with 83% saying they would be ashamed and embarrassed if they got caught for drug driving and only 4% said they liked drug driving.

Cluster 3 – Lower risk drug drivers
Members of this Cluster made up 51% of drug users and were the least likely to drug drive with 7% admitting to drug driving twice a year at most. This cluster held the most conservative views with a significantly greater percentage of this cluster compared with the other two clusters believing that drug driving is not safe (95%), diminishes their driving ability (89%) and increases risk taking behaviour (46%). In addition to believing that drug driving was unsafe, this cluster were also the most likely to believe that they would get drug tested at the roadside (74%) and would be likely to get caught if they drug drove (47%). They were the least experienced drivers with 12% being Learner drivers, and were less likely than the other clusters to have a university education (19%).

Changes between the clusters in 2008 and 2003
An analysis of the changes between the clusters identified in 2008 and 2003 indicate that the Moderate risk cluster has increased in size since 2003, while the more conservative Lower risk cluster has decreased in size. However, this shift in the relative size of low and moderate clusters could be balanced out in the longer term by the fact that the views of the High risk cluster tended toward the more moderate compared with the High risk cluster in 2003, with increasing tendencies to consider the social consequences of getting caught and increasing beliefs in the likelihood of getting caught.

Differences between the High risk drug driving clusters in 2008 and 2003 include:

- The 2008 High risk cluster were more likely to believe they could get caught drug driving with 55% saying it was unlikely they would get caught drug driving compared with 81% who said it was unlikely in 2003.
- The 2008 High risk cluster were more likely to say they would be ashamed and embarrassed if they were caught drug driving (76%) compared with only 45% in 2003;
- The 2008 High risk cluster were less likely to say they would get in a car with a drug affected driver with 41% in 2008 saying they would compared with 53% in 2003;
- The 2008 High risk cluster were more likely to say they would like more information about how drugs affect their driving (45%) compared with the 2003 High risk cluster (34%).

Discussion

This study indicates that the introduction of roadside drug testing has significantly changed attitudes to drug driving. The rate of drug driving has decreased by 10% from 4% 2003 to 3.6% in 2008. The rate of drug driving in Sydney was found to be high with a drug driving rate of 4.7%, which was above the drug driving rates in all other NSW regions and the national average of 2.9% found in the 2007 National Drug Strategy Household Survey [4]. Drug driving rates in all other NSW regions were below the national average. The drug driving rates were strongly associated to the rate of drug use for each region. The higher rate of drug use and driving in Sydney indicates that there are more opportunities for drug use and resulting drug driving in Sydney in comparison to regional areas. In areas outside Sydney drug use is generally lower and is more likely to occur close to, or at home, where driving is less likely to occur.

The majority of drug users were aware that police have the ability to conduct RDT, and over 60% of these drug users indicated that it had decreased the likelihood they would drug drive. This high awareness of RDT has also resulted in an increased belief amongst drug drivers that they would be likely to get caught if they drug drove.

The high awareness of RDT among drug users provides support for the roll out strategy of drug driving operations to date and indicates that the small scale public education (website and brochure) has been an appropriate strategy to date.

Of concern, however, was the increase in incidence of Cocaine use before driving, and the belief among these drivers that they are unlikely to be caught. This is a result that needs further investigation to determine if this is representative of a trend in drug use, or whether this change in behaviour is related to the drug driving legislation and the inability to test for Cocaine at the roadside.

In addition to the increasing belief in the likelihood of getting caught for drug driving, there was an increasing sense of social disapproval or unacceptability for drug driving and an increasing level of anxiety about drug driving. This suggests that drug driving may be becoming more socially unacceptable, just as drink driving became socially unacceptable after the introduction of random breath testing.

There is strong evidence in this study that drug users are showing some shifts in relation to how likely they are to change their drug driving behaviour. This is highlighted in the changes with regards to drug driving prevalence, knowledge of RDT, perception about the likelihood of getting caught and intentions to drug drive.

In 2003 the High risk cluster of drug drivers were unaware of the risks of drug driving and believed they wouldn't get caught. This group of drug drivers are now more likely to believe they could get caught drug driving, are more likely to indicate they would be embarrassed if caught and would like more information about how drugs affect their driving. This indicates that these high risk drug users, whilst still drug driving, are starting to think about changing their drug driving behaviour.

There has also been a significant change in the Moderate risk group of drug drivers. In 2003 this group were more likely to drug drive due to being uninformed about the effects of drugs on driving. This group of drug drivers now possess a greater knowledge of the effects of drugs on driving performance and are now able to make an informed choice about the risks of drug driving. They also have a high awareness of the ability of police to conduct drug testing.

The drug users with a Low risk of drug driving appear to be lower risk drug users in general. This group of drivers were less likely to be poly drug users, did not believe drug driving was safe and believed that it was likely they would be drug tested. Only 7% of these drug users admitted to drug driving, indicating that this group of drug users have already taken actions to avoid drug driving.

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