

Drink and Drug Driving in Victoria: Lessons from 10 years of TAC Research

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Abstract

The TAC uses research evidence to inform road safety programs. This paper demonstrates how the TAC has used research information to tackle drink driving over the last ten years and more recently, drug driving. Key planks in the research strategy include ongoing survey research projects that explore behaviours, attitudes and understanding of advertising among the general public. Focus group research explored drink drivers' behaviour and attitudes. These were complimented by fatality data and enforcement data. Research data has helped the TAC to identify areas of emerging concern in drink driving, for example low level drink driving, the nature of the drug driving problem, and to identify where safety gains have been achieved. Research was used to identify targets for campaigns and to evaluate the performance of drink and drug driving programs.

Keywords

Drink Driving, Drug Driving, TAC Advertising, Market Research

Introduction

In order to develop and evaluate road safety programs the TAC has used an evidence based approach. Extensive survey research with Victorian road users forms part of this evidence base. This paper will describe some of the survey research that the TAC has conducted into drink and drug driving over the past ten years and how it has shaped the TAC's drink and drug driving programs.

Issues explored in this paper are:

- What does the general community think about drink and drug driving?
- How do drink and drug drivers behave?
- What do drink and drug drivers believe about drink and drug driving?
- What does this tell us about priorities for action on drink and drug driving?

Key Research Tools

To complement the crash and enforcement data, there are two main survey tools that provide the TAC with ongoing information to inform and evaluate road safety programs.

Advertising Tracking

Since the first TAC advertisements went to air there has been measurement in some form of the general public's understanding of road safety advertising; Advertising Tracking research. This ongoing research project explores a range of issues including understanding of TAC mass media communications and self-reported behaviour and attitudes. Since 2005 this

project has used a continuous tracking methodology. Telephone surveys are conducted each week with 70 Victorian Drivers aged 18-65 years. Results are aggregated over a number of weeks for reporting and analysis purposes. Prior to 2005, the research project used a pre and post design and typically involved 5-7 waves of research per year, with samples of 550 Victorian Drivers.

Road Safety Monitor

The TAC conducts an annual survey called the Road Safety Monitor that aims to understand attitudes and self reported behaviours of Victorian drivers a range of road safety issues. This research has generally used telephone survey methodology interviewing at least 500 Victorian drivers aged 18-65 years old. The benchmark year for this project was 2001. In 2010, due to concerns with representativeness of telephone surveys, the methodology moved to mail out recruitment. Victorian licence holders were contacted by mail and generally completed the survey either online or on paper.

Drink Driving Research

Drink driving ten years ago

To understand progress on drink driving over the last ten years, let's view a snapshot of the status in Victoria around 10 years ago. At this time the TAC drink drive messages used the tag line 'If you drink then drive, you're a bloody idiot' and Random Breath Testing (RBT) had been in operation for around ten years. There was general community endorsement of drink drive messages. The Road Safety Monitor (2001) showed that:

- 98% of drivers support breath testing and booze bus activity
- over 90% of drivers would tell friends not to drink drive and
- about 90% would not get into the car with a drink driver

Almost 1.5 million RBTs were conducted in 2002, with over 6,000 drivers caught over the legal limit, 1 in every 233 drivers tested was over the limit. Despite this record high level of enforcement activity, data showed drink driving behaviour was still of concern. Levels of self reported drink driving were at about 13% - 14% (Road Safety Monitor, 2001 and Advertising Tracking, 2003). The fatality data showed that 2002 was the worst year in a decade. In that year, 71 drivers and riders were killed with BAC at or over .05 in 2002, representing almost a third of drivers and riders killed.

RBT data showed a growth in drink drivers caught, especially among those with lower level illegal BACs. Between 2000 and 2002 the numbers of drivers/riders were caught with BACs between .05 and .10 increased by more than 100%, from 5,700 to over 12,000, while the numbers caught with BACs at/over .10 increased by 24%. There was a 16% overall increase in RBT activity between 2000 and 2002.

On the back of this data, and a literature review published by NHTSA (Moskowitz & Fiorentino, 2000) which demonstrated that impairment due to alcohol consumption begins at any BAC above zero, the TAC turned its focus to lower level illegal drink driving.

Lower level illegal BAC

In 2003, the TAC commissioned Barry Elliot to conduct some focus group research to explore what was happening with lower level illegal drink drivers. Focus groups were conducted with self confessed drink drivers in both metro and regional locations. Results

revealed that self confessed drink drivers believed that driving when really drunk is morally wrong. When drink drivers know they will be having a big night out drinking heavily they will not take their cars and instead plan alternative arrangements.

However, attitudes and behaviours with respect to lower level illegal BACs were different. Those who chose to drink drive when they thought they might be a little bit over the limit believed:

- they are in control, unimpaired by alcohol and their risk of accident is low
- that they could avoid getting caught because they know when and where booze buses operate
- that even if they were pulled over by the police and found to have a low level illegal BAC, they stood a good chance of getting off at the discretion of the police officer

They reported that they had done this before and had gotten home safely without being caught, or having an accident. The failure to experience negative outcomes when driving a little bit over the limit thereby reinforced their behaviour and confirmed their perceptions of the low level of risk associated with their behaviour.

Advertising tracking research confirmed similar sentiments among the general community:

- drivers thought being booked at 0.05 was not certain, less than two thirds thought they would be booked by police if they were to be caught with a BAC at .05
- just under half thought their risk of accident when drink driving a little bit over the limit was high
- only a third of drivers rated their chances of being caught if they were to drink drive a little bit over the limit as likely

This survey and focus group research demonstrated that both the general community and drink drivers thought driving when really drunk was not socially acceptable, however there was tolerance in the community for driving when just a little bit over the limit; clearly cause for concern.

Research on impairment, combined with the crash data, enforcement data and the market research moved the TAC drink drive program to focus on driving when just a little bit over the limit. In 2003 and 2004 TAC mass media advertising began using the tag line "Only a little bit over? You bloody idiot.", rather than the well known 'If you drink then drive you are a bloody idiot'. Since then, the TAC 'Little Bit Over' campaign has depicted:

- the types of impairment at lower level BACs,
- the consequences that a loss of licence might have on everyday life,
- that police do not have discretion to let drink driver off,
- how drivers need to exercise caution if they trying to estimate their BAC level,
- the high risk of accident and high risk of being caught

Drink driving now

High levels of general community support for the drink drive program remain relatively unchanged. The Road Safety Monitor from 2010 shows:

- 99% support breath testing and booze bus activity
- 93% would tell a friend not to drive if over the limit
- 87% wouldn't get into a car driven by someone over the limit

Table 1 shows there has been a clear improvement in self-reported behaviour over the last ten years. Perceptions of risk have improved, with more people rating the risk of being caught or having a crash as high than ten years ago. However, there has been no increase in self-reporting of being breath tested or having seen drink drive enforcement.

Table 1. Comparisons of drink driving survey measures: then versus now.

	Then...	Now...	Source
Self reported drink driving, when near or over the limit in the last 2-3 months*	13%	6%	Advertising tracking Nov-Dec 2003 v Q4 2010
Self reported drink driving, when near or over the limit*	14%	8%	Road Safety Monitor 2001 v 2010
Travelled with a driver who was near or over the limit	7%	10%	Road Safety Monitor 2001 v 2010
Rate the likelihood of having a crash if drive while marginally over the limit as high*	48%	58%	Advertising Tracking Nov-Dec 2003
Rate likelihood of being caught if drink drive as high*	36%	45%	Advertising Tracking Nov-Dec 2003 v Q4 2010
Seen drink drive enforcement in the last 2-3 months	74%	78%	Advertising Tracking Nov-Dec 2003 v Q4 2010
Been breath tested in the last 2-3 months	42%	43%	Advertising Tracking Nov-Dec 2003 v Q4 2010

* simple chi square contingency table calculations were made to test for independence, significant difference at alpha = .05

When looking more closely at some of the specific messages of the little bit over campaigns, some measures have been shown to change since the beginning of the campaign. Advertising tracking data shows the following:

- More people define .05 BAC as a little bit over, up from 21% in 2003 to 64% in 2011.
- Fewer drivers agree that driving only a little bit over is not really dangerous, down from 16% in 2003 to 7% in 2011.
- Fewer people agree that driving with a BAC at or near .05 is not really drink driving, down from 21% in 2003 to 14% in 2011.

Beliefs about police discretion to let off drivers who are a little bit over, knowledge about driving at .05 being illegal, all police cars being fitted with breathalysers and the ability to avoid enforcement by using back streets have shown no significant changes since the beginning of the little bit over campaign.

Enforcement data shows that overall levels of enforcement activity have decreased since 2002 (See table 2). Since 2002, there has been a significant reduction in drivers and riders killed over the limit and drivers and riders caught by RBT.

Table 2. Comparisons of enforcement and fatality measures: now and then

	Then...	Now...	Source
*RBT strike rate: 1 in every ...	233	338	2001 v 2010
RBTs conducted (million)	1.46	1.26	2002 v 2010
*Drivers/riders killed BAC at/over 0.05 (and % of all drivers/riders)	71 (30%)	36 (20%)	2002 v 12 months to May 2010

The RBT data shows a gradual improvement in drink driving among those with lower level illegal BACs. Figure 1 shows that the percentage of those tested who are up to .10 BAC has been trending down since the little bit over campaign began in 2003 (see figure 1).

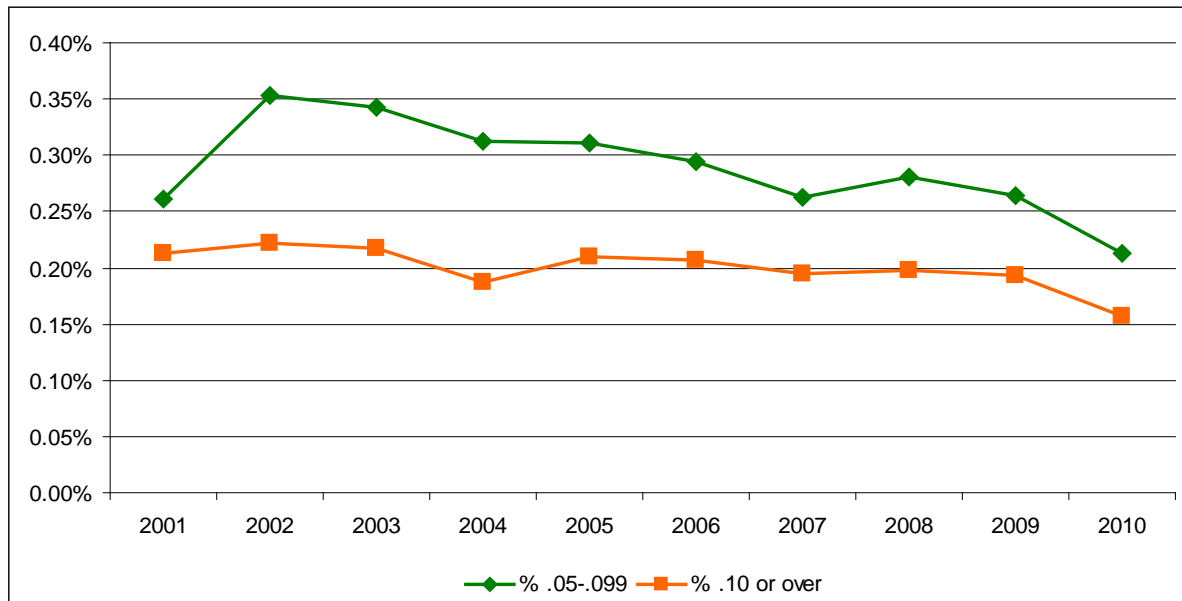


Figure 1. Percentage of drivers and riders who were found to have lower level or higher level illegal BACs in Random Breath Testing.

To summarise: survey, RBT and fatality data show there has been a reduction in drink driving behaviour and positive changes in the perception of crash risk, chance of being caught and risk associated with low level illegal BACs. The majority of people now think of low level illegal drink driving as drink driving, a change from ten years ago. These improvements have been observed in a context where there was no corresponding increase in overall enforcement activity, either real or as perceived by drivers. So why has this change to perception and behaviour occurred? It is likely that the TAC mass media advertising and more strategic targeting of enforcement are key contributors to this observed improvement among Victorian drivers. TAC mass media communications using the only a little bit over tag line have centred around the risks of driving a little bit over and the chance of getting caught. It is encouraging that beliefs on these key issues have changed, the rates of self reported drink driving, lower level drink drivers caught and driver/rider fatalities over the limit have all reduced.

Profile of drink drivers

Looking at the latest data from the most recent Road Safety Monitor we can construct a profile of drink driving targets, to help to tailor communications and programs most effectively. The profile of a self reported drink driver is relatively unchanged over the last ten years. It is likely that social norms in some segments of society support alcohol consumption and may even condone drink driving.

Characteristics of drink drivers

- Are significantly more likely to be male than female (12% of males, v 4% of females)
- Are significantly younger than non-drink drivers. The incidence of drink driving is highest among 26-39 year olds, 14% admitted to drink driving.

- Are significantly different to non-drink drivers in their employment status; are more likely to be employed full time (13%) or unemployed (10%) than employed part time (3%), students (4%) or in home duties (0%).
- Are significantly more common among blue collar than white collar workers, e.g. 20% of technicians and trade workers reported drink driving and 12% of machinery operators and drivers.
- There are no significant differences between drink drivers and non-drink drivers in terms of whether they live in metro or rural areas, their country of origin or household composition.

Drink driving behaviour

- Drink drivers are significantly less likely than non-drink drivers to plan their trip home before going out and more likely to plan their way home after starting to drink
- More likely to travel as a passenger with a driver who was over the limit, half have travelled with a driver over the limit, compared to only 4% of non-drink drivers.

Beliefs and attitudes about drink driving

- Like non-drink drivers, drink drivers say they understand that drink driving is dangerous and say they would tell friends not to drink drive.
- All drivers would worry most about hurting or killing someone if they chose to drink drive, but the fear of getting stopped by the police is much more likely to worry drink drivers much than non-drink drivers.
- Drink drivers are significantly less likely to think they will get caught if they drink drive, probably because they have done it before, without getting caught.
- Drink drivers are significantly less likely to think the penalties are a deterrent and less likely to agree that penalties are too lenient.

Drink drivers take a range of risks

- Drink drivers are more likely to use handheld mobile phones while driving, in fact 82% of drink drivers had used handheld phones while driving, and they rate using mobile phones while driving as less risky than do non-drink drivers.
- Like non-drink drivers, drink drivers recognise the risk associated with non-wearing of seatbelts, but are less likely to wear a seatbelt all the time.
- Compared to non-drink drivers, they are more likely to question the enforcement of speeding as a road safety measure and the notion that speeding increases crash risk, and are more likely to self report speeding.
- Drink drivers, like non-drink drivers, recognise the risk associated with driving while tired but are less likely to take powernaps when tired or take breaks on long drives.

Future directions for drink driving

It is likely that community support for drink drive programs will remain high. The challenge remains in reaching the targets, young men. Continuing to address drivers' misconceptions about impairment and risk has been shown to be beneficial. However, RBT data demonstrates that there are still thousands of drivers who are willing to risk drink driving. The rates of people travelling with a driver who had been drinking has not demonstrated change over the last ten years and suggests that among some, the fear of getting caught rather than the need to stay safe is a key determinant of behaviour. Those driving at lower level BACs seem to be amenable to change via public education approach that is well supported by widespread

enforcement activity. It may be that working to change behaviour among those caught at higher BAC levels may require a different approach.

Drug Driving Research

Drug driving ten years ago

Research data showed that a considerable proportion of drivers killed on Victoria's roads tested positive to illegal drugs (e.g. Drummer, Gerostamoulos, Batzis, Chu, Caplehorn, Robertson & Swann, 2003). The use of the term drugs in the present paper refers to illegal drugs. Survey data from the Road Safety Monitor (2001-2003) demonstrated a high level of community support for the drug testing of drivers and the perception that drug driving is a road safety problem.

- Over 90% of drivers supported the idea of testing drivers for drugs other than alcohol
- About three quarters of community believed that driving under the influence of drugs was a common problem

In 2003, the trial of drug driving enforcement using the saliva testing technology was approved and commenced in late 2004.

Drug driving survey research

In the light of the impending enforcement trial, the TAC conducted some survey research to understand self-reported behaviour and attitudes with respect to drug driving. This was followed up after the trial concluded. The results of the research showed that community support for drug driving enforcement was clear and at a similar level of support to drink driving:

- Both before and after the trial there was a high level of community support for drug driving enforcement; almost 90%
- Almost 90% thought enforcing drug driving would be beneficial for road safety
- Almost 90% report they would not get into a car with a driver who had taken illicit drugs
- Over 90% report they would tell a friend not to drive after taking illegal drugs

By comparison, drug drivers had less supportive attitudes about drug driving enforcement:

- Only 42% of drug takers say they would not get into a car driven by a friend who had taken drugs.
- Only half of drug users supported drug testing drivers
- Only 40% of drug users saw driving under the influence of illegal drugs as a problem
- Only 60% of drug users thought that enforcing drugs would be beneficial for road safety

The research provided an indication of how widespread drug and alcohol use was in the community:

- About two thirds of the sample had at some time in the last 6 months consumed 3+ drinks in a two hour period, but among drug users this was almost universal (98%)
- About 10% had used illicit drugs in the last 6 months, this was more common in metro than rural areas, among males than females; particularly males aged under 25 of whom 25% had used illegal drugs
- Most common drug taken was marijuana, followed by ecstasy and speed
- About 70% of drug users had combined illegal drugs with alcohol use

The trial indicated there could be a small deterrent effect of drug enforcement among drug takers. Before the drug testing trial 45% of those who had taken drugs reported they had drug driven; after the drug testing trial, 31% reported driving. However, this difference was not significant as there were only small numbers of drug takers identified in the research. There was also a reduction in the number reporting they had been the passenger of a drug driver, 12% to 5% of the whole sample, but 44% of drug users still took this risk.

Driving under the influence of alcohol or speed were both rated as high risk (by 88% and 80% of all participants respectively). By comparison, about two thirds of drug users thought driving after taking speed was high risk, and about three quarters thought driving after using alcohol was high risk. When considering driving under the influence of marijuana, only two thirds of general public thought driving it was high risk, and even fewer drug users thought it was high risk (29%). There was a demonstrated need to debunk the myth that marijuana use does not pose a driving risk.

When drug users were asked what would worry them if they drive after using, a quarter thought they would worry the most about killing/injuring someone, a quarter thought their greatest worry would be getting stopped by the police. The chance of getting tested was generally perceived to be low and only around half were confident that the test itself would actually detect the drugs.

Drug users had paid attention to public education messages, as they had more accurate knowledge about which drugs would be tested for and about the penalties that apply if caught, than did non-drug users. Drug drivers were more likely to know someone who had been drug tested during the trial than drivers as a whole.

Drug driving since the trial

In 2006, on the back of the successful trial, drug driving enforcement was rolled out by Victoria Police. TAC mass media advertising activity has generally focused on making drivers aware of the fact that booze buses are also now drug buses and has tried to educate about the impairing effects of drugs.

Indicators of the incidence of drug driving demonstrate that behaviour change has not yet occurred among drug drivers. Testing strike rates and deaths of drivers/riders who tested positive for illegal drugs have not demonstrated any clear improvement. In 2010 over 40,000 random drug tests were conducted with almost 700 positive tests resulting in a strike rate of 1 in every 60 drivers tested. This is similar to the strike rates observed at the beginning of the program. Drivers and riders killed who tested positive to THC (active ingredient in marijuana) or to amphetamines/ephedrine-like stimulants have not shown any clear downward trend since 2004, see figure 2.

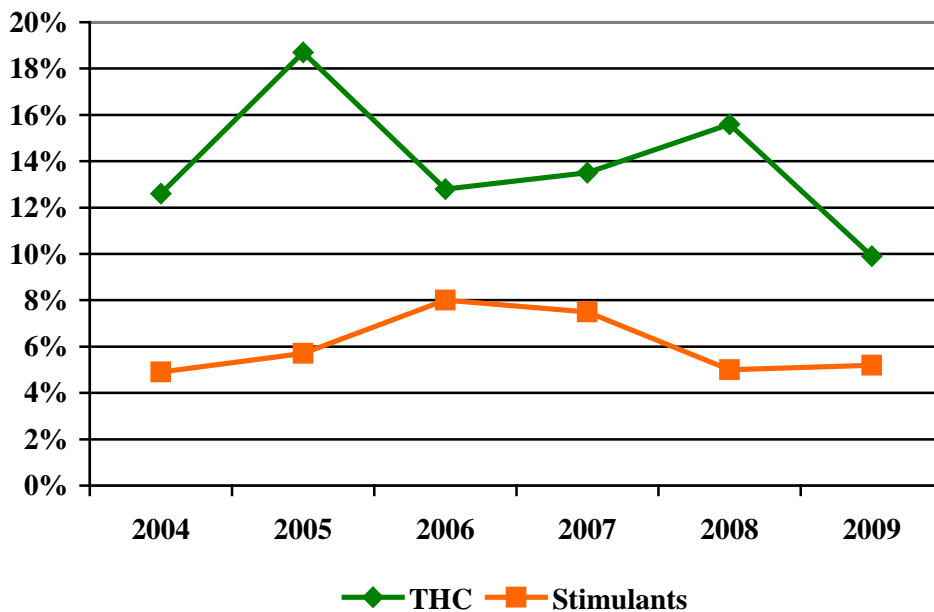


Figure 2. Drivers testing positive to THC and amphetamines/ephedrine-like stimulants 2004-2009.

Road Safety Monitor (2010) data indicates that about 4% of drivers self-report being drug tested in the last 2-3 months. This level of self-reported saliva testing is at one tenth of the rate of self-reported breath testing for alcohol. High levels of enforcement have accompanied the behaviour changes observed with drink driving. In the absence of high levels of drug enforcement it may be a challenge to replicate the drink driving behaviour change outcomes with drug driving. Support for the testing of drivers for drugs has continued to be high since the trial finished, most recent measurements indicated over 95% of the community are supportive. This is at a similar level to the support engendered for drink driving enforcement.

Profiling Drug Users

In the advertising tracking research since 2006 around 5,000 drivers who have been asked about illicit drug use, about 7% of these admitted to using illicit drugs in the last 6 months. Of these 36% had driven after using illicit drugs in the last 6 months. This means that an estimated 2.6% of the drivers have been a drug driver in the last 6 months. Due to sample characteristics this is likely to be a conservative estimate. With such small numbers of drug takers interviewed at any one point in time it is difficult to get an understanding of trends in drug driving over time. However, the data can be used to construct a profile of drug takers and drug drivers.

Drug users are most likely to be aged 18-29 years and are most likely to be male. Rates of drug use did not differ significantly among those who live in metro or rural parts of the state. Drug users have been well targeted by police activity as they were more likely to have seen police conducting saliva testing than non-drug users and to know someone who has had a random drug test. They were also more likely to have been in a car travelling with a driver who had used illicit drugs are more likely to drink drive than were non-drug users.

Drug users play down levels of risk. They are less likely to think driving after using drugs is dangerous and rate the risk of having an accident after using illegal drugs as lower than do

non-drink drivers. They are more likely than non-drug takers to think police have discretion to let you off if caught and it is easy to predict where drug buses operate.

Profile of Drug Drivers

When looking further at drug takers who admitted to driving after using, the age profile does not differ, but the drug takers who admitted to driving are even more likely again to be males. The rates of drug takers who chose to drive were lower in major urban and rural areas than in regional urban centres. Drug drivers had higher levels of exposure to police enforcement than drug takers who did not drive, they were more likely to report that they had seen police doing drug testing, and were more likely to have been tested by police. Two thirds of drug drivers increased their exposure to risk reporting they had also travelled as a passenger with a driver who had taken drugs, compared to only 28% of drug users who chose not to drive. Over a third of drug drivers reported they had driven when over .05, this is significantly higher than drug takers who chose not to drive. The behaviour of drug drivers indicates they are clearly more willing to put their safety at risk in a range of ways than drug users who do not drive.

Future Directions for Drug Driving

- Males in their 20's remain the key target
- Educating drug takers about risk of accident and impairment associated with taking drugs is essential
- Education highlighting increased risk of being caught is important but without a high level of enforcement this may not be an effective deterrent.
- The police are effectively targeting drug enforcement at drug takers and drug drivers, however the incidence of testing among these groups is still relatively low (compared to drink drive enforcement). Higher drug enforcement levels are a priority, but clearly are problematic from an operational point of view.
- As with drink driving, travel as a passenger with other drug drivers is a problem.

Lessons from TAC Research

Using data from multiple sources helps to piece together the picture.

- Crash and enforcement data – identify the size of the problem in the community and any changes to behaviour
- Self reported data from surveys – effective at indicating how widespread target behaviour, attitudes and perceptions at the general population level. Maintaining some continuity in questions asked and methods has been valuable to ensure valid comparisons over time
- Focus group research with key target groups – was used to understand and explore issues with drink drivers in developing new strategies

Key uses for the TAC's market research data:

- Construct a profile of drink and drug drivers for program targeting
- Demonstrated that drink and drug driving campaigns attract high levels of community support
- Identify and explore areas of emerging concern, for example those driving a little bit over, those travelling with impaired drivers, myths about impairing effects of drugs
- To evaluate the effectiveness of the TAC approach by identifying changes to behaviour among drivers what factors might be driving this behaviour change.

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