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MUARC BASELINE PROGRAM TO ASSESS THE IMPACT OF DRUG USE ON ROAD SAFETY

UNDERSTANDING THE PATTERNS AND MOTIVATIONS FOR DRUG-DRIVING BEHAVIOUR AND COMMUNITY ATTITUDES TOWARDS ADDRESSING DRUG-DRIVING IN VICTORIA, AUSTRALIA

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Abstract:

With drug-driving representing a significant road safety concern, this report set out to document the use of alcohol and other drugs in the Victorian community and to provide an understanding of the correlates of drug-driving behavior. Of interest were community attitudes, motivations, and knowledge of both drug use and perceived risks associated with drug-driving. With a view toward improving road safety, community support for drug-driving countermeasures and their perceived effectiveness were examined. In line with the current roadside drug testing regime in Victoria, emphasis was placed on outcomes that related to driving whilst under the influence of cannabis (THC), ecstasy (MDMA) and amphetamines, particularly Ice.

The research was conducted in two parts: 1) 10 interviews with hospital and community-based drug and alcohol treatment specialists in the period September - October 2017; 2) A population-based survey of the Victorian community was undertaken. Survey data was collected in the January 2018 – March 2018 period and 1852 individuals completed the survey.

Interviews with drug and alcohol specialists highlighted the complexity of drug use and its relationship to driving. A distinction was made between recreational users, high-functioning regular users and dependent users of illicit substances. Treatment needs were seen to differ based on the drug used. The detection of drug-driving was seen be an opportunity for intervention, noting that a therapeutic-justice model would likely to be the most effective for dependent drug-users rather than a purely sanctions-based approach.

Most (88.8%) survey respondents reported lifetime alcohol use with 43.3% having used an illicit drug(s) or misused prescription medication; 10.7% reported never having tried alcohol or other drugs. Of those who reported having ever tried a drug other than alcohol (801, 43.3% of sample), 23.0% indicated having driven whilst suspecting that they were under the influence, with 40.8% of respondents reporting they had done so within the last 12 months. Support for sanction- and therapeutic-based countermeasures for drug-driving differed depending on individual history of use and type of drug used but was nonetheless high.

These findings can be used to inform future initiatives aimed at reducing the incidence of drug-driving in Victoria.

Key words:

Drug-driving; road safety, crash risk, enforcement, substance abuse, drug rehabilitation, survey

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FOREWORD

The Monash University Accident Research Centre (MUARC) *Program to Assess the Impact of Drug Use on Road Safety* was sponsored by the Department of Justice and Community Safety, the Department of Transport, the Transport Accident Commission (TAC), and Victoria Police through the MUARC Baseline program.

This research program was established to provide insight into drug use within the community and to explore motivations underlying drug-driving behaviour. The program also explored community attitudes and support for countermeasures to address drug-driving in Victoria, Australia.

Keywords: Drug-driving; road safety, crash risk, enforcement, substance abuse, drug rehabilitation, survey.

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CONTENTS

FIGURES

TABLES

ACKNOWLEDGMENTS

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EXECUTIVE SUMMARY

BACKGROUND AND AIMS

It is widely accepted that drug-driving presents a threat to achieving reductions in the number of people killed and seriously injured on our roads. With this in mind, the Monash University Accident Research Centre (MUARC) *Baseline Research* partners established a research program that would provide inputs to inform current drug-driving road safety policy and programs.

In meeting this aim, the *Research Program* sought to:

- Provide a targeted review of the association between drug use and crash risk using literature and reports published since 1995 (up to 2015), including review papers and relevant expert group position papers where possible.
- Explore motivations for drug use among specific parts of the driving population.
- Quantify the extent of drug-driving in Victoria through an examination of offence data and hospitalisation data.
- Examine the attitudes of Victorian drivers toward drug-driving, including their use of alcohol and other drugs, as well as their attitude toward road safety countermeasures.

The *Research Program* was developed by the MUARC in partnership with the Department of Transport, the Transport Accident Commission, the Department of Justice and Community Safety, and Victoria Police.

The *Research Program* consisted of the following components

- The conduct of a literature review focussed on the prevalence of drug-driving, the crash risks associated with drug-driving, and countermeasure solutions. The intention was to identify countermeasures that could be effective in reducing drug-driving behaviour in Victoria.
- The conduct of a population-based survey of the Victorian community with the view toward understanding alcohol and drug-use patterns, drug-driving behaviour, perceptions of the effectiveness of specific countermeasures and the level of support for each.

Taken together, these reports provide a detailed examination of the current drug-driving problem in Victoria, and ways that this can be addressed.

This report relates to the findings of the population-based survey.

SCOPE AND METHODS

This report set out to document the use of alcohol and other drugs in the Victorian community and to provide an understanding of the correlates of drug-driving behaviour. Of interest were the attitudes, motivations, and knowledge of both drug use and perceived risks associated with drug-driving. As the *Research Program* was interested in countermeasures that would reduce the incidence of drug-driving, particular attention was paid to the perceived effectiveness of a range of countermeasures, as well as community support for each.

In line with the current roadside drug testing regime in Victoria, emphasis was placed on outcomes that related to driving whilst under the influence of cannabis (THC), ecstasy (MDMA) and amphetamines, particularly Ice.

There were two components to this report:

1. The conduct of interviews with hospital and community-based drug and alcohol treatment specialists.
2. The conduct of a large-scale population-based survey of the Victorian community.

Interviews with specialists: The first component was designed to provide an overview of substance use and its associated culture. More specifically, a key goal was to obtain an informed understanding of why individuals consume drugs (as well as alcohol) and then drug-drive. A total of ten participants engaged in voice-recorded semi-structured interviews that ranged between 30 to 60 minutes. Participants were reimbursed $75 for their time. Data obtained from the semi-structured interviews were analysed utilising qualitative methods with specific themes identified. Interviews were undertaken in the period September 2017 – October 2017.

Community-survey: The second component was designed to gain a broader understanding of patterns and trends of drug-driving, along with community knowledge of drugs and attitudes towards drug-driving. A two-part survey was designed and included the following:

- Part A included questions pertaining to driving history, alcohol and drug and prescription drug misuse patterns, motivations and attitudes towards drug-driving, attitudes towards countermeasures, general health and demographics.
- Part B included questions relevant to mental health, personality, aggression and alcohol consumption using validated assessment questionnaires.

This report focuses on items administered in Part A of the survey.

A total of 1,852 participants were recruited from the Victorian community. Participants were aged between 18 and 89 years. The survey was completed online or using a paper copy that was made available upon request. Participants were offered a $30 gift card as reimbursement for their time in completing Part A. Part B of the survey was optional and for those who elected to complete this component, an additional $20 gift card was offered as reimbursement, along with entry into a prize pool to win one of two electronic devices (Apple iPhone or iPad, Samsung phone or tablet). Data from the survey were quantitively analysed based on key themes, with a particular focus on the three main drugs of interest.

Survey data was collected over a 4-week period commencing on the 16th of January 2018. With a sole focus on drivers aged 65 years and older, an additional 4-week data collection period commending on the 3rd of March 2018 was undertaken.

DRUG AND ALCOHOL STAKEHOLDER ENGAGEMENT

The drug and alcohol specialists identified distinct groups of drug users:

- Recreational drug users were defined as those who used illicit drugs occasionally at particular events or under certain circumstances.
- High-functioning users were described as those who use drugs regularly, however, remain able to maintain everyday function (e.g., work and family commitments).
- Dependent users were described as those who have a Substance Use Disorder and struggle to function or experience withdrawal when not under the influence of the drug.

Based on the key themes examined, a number of key take home messages were established:

- The drug use population in Victoria, Australia, is multi-faceted. Individuals are frequently polydrug users and range in their patterns of use from recreational users, high-functioning users through to dependent users. Use is further complicated by other mental health related factors that need to be considered when considering countermeasures. This latter point has particular relevance for the consideration of treatment and rehabilitation options, particularly as it relates to drug-driving behaviour.
- There are a range of contextual factors as to why individuals use drugs. These factors may perpetuate continued use and increase their engagement in other high-risk behaviours such as drug-driving.
- The main motivation for drug-driving is for practical purposes. It was identified that there is a need to focus on countermeasures that will assist in separating drug use with driving, and increasing the perception of the likelihood that one will be drug-tested. It is also important to ensure that the individuals are aware of the legal implications and consequences of being caught for drug-driving.
- The overall consensus was that a therapeutic-justice model approach to managing drug-driving offenders – particularly those with dependency issues, is necessary. It was said that this population often feels marginalised and often perceive the '*system*' as punitive. A shift in this perception will likely contribute to empowering individuals to change their behaviour. Therefore, inclusion of both sanction-based and treatment-based countermeasures was supported among these treatment providers.
- Being caught for drug-driving provides an opportunity for individuals to be linked with services matched to individual offender needs. Moving forward, it will be essential to develop effective screening processes to direct individuals toward appropriate treatment and rehabilitation options. Reductions in drug-driving behaviour will be dependent to a large extent on the success and effectiveness of these pathways.

COMMUNITY SURVEY ON ATTITUDES TOWARDS THE USE OF ALCOHOL AND ILLICIT DRUGS, AND DRIVING

Participant characteristics

A population-matched sample of Victorians were recruited for the survey. Sample quotas based on gender, age and location of residence were established so as to obtain a representative sample of the Victorian population. To participate in the survey, potential respondents had to have driven a vehicle or ridden a motorcycle previously.

The sample comprised 1,852 participants aged between 18 and 89 years (*Mean* = 43.63 years, SD = 16.48 years). Of these, 50.5% were males and 49.5% were females. The sample consisted of persons across the full range of employment categories, education and training qualifications, as well as relationship status. This provided confidence that the findings reported here are reflective of the broader Victorian population.

Driving history

Of the total sample, 98.5% reported that they had driven within the last 12 months, of which 82.2% indicated that they drove daily. In total, 99.6% reported currently holding or having ever held a car licence, motorcycle licence (17.7%), heavy vehicle licence (8.5%) and/or a taxi licence (2.2%).

In addition to driving and licence history, offence and crash involvement were also of interest. Of the total sample, 13.3% reported that they had received a driving-related fine from the police (or court) within the last 12 months. The most common offences included speeding, running a red light and using a mobile phone. A further 1.2% of respondents indicated that they had had their licence suspended or disqualified (cancelled) within the last 12 months. These are key indicators of aberrant driving behaviour that likely contribute to increase crash risk.

Participants were also asked about their crash involvement history. Nearly two-thirds of the total sample reported that they have at some point been involved in a crash as a driver, of which 15.2% reported that their crash was within the last 12 months. However, this data referred to any crash involvement, irrespective of whether the respondent was at fault or not at fault and includes all severities including property-damage-only (PDO) crashes.

Drug use patterns and driving

This section aimed to gain an overview of drug use patterns and driving within the Victorian community. The key findings are summarised here:

- Of the total sample, 89.3% of respondents reported having ever tried alcohol, and/or used an illicit drug, or misused prescription medication. Further 43.3% of the sample stated that they had specifically tried a drug other than alcohol. Conversely, 10.7% indicated that they had never consumed alcohol, used an illicit drug, or misused prescription medication.
- Most respondents indicated that they had tried alcohol and had consumed it within the last 12 months. Other common drugs that had been tried and used within the last 12 months included cannabis, opioid and narcotic analgesics, benzodiazepines, ecstasy and cocaine.
- Polydrug use, defined as the use of more than one drug (including alcohol) at the same time, was reported by 24.2% of the sample. The most common combinations reported were alcohol and cannabis, alcohol and ecstasy, followed by alcohol and cocaine.
- Drink-driving and drug-driving was explored:
  - Of those who reported having consumed alcohol (88.8% of sample), 36.3% self-reported that they had driven whilst suspecting they were impaired by alcohol. With respect to the last 12-months, 83.0% stated that they had consumed alcohol, of which 13.3% stated that they had driven when they suspected they were in excess of the legal BAC for their licence class.
  - Of those that had used each drug, 26.0% of cannabis users, 16.1% of ecstasy users, and 29.3% of Ice users self-reported driving whilst suspecting they were impaired by that drug. Amongst those who reported drug use within the last 12 months, 24.0% of cannabis users, 9.4% of ecstasy users, and 41.7% of Ice users self-reported driving within 3 hours of using the drug.

Motivations, knowledge and attitudes towards drugs and drug-driving

This section aimed to establish an understanding of the motivations underlying drug-driving behaviour. To do so, the level of knowledge of alcohol and other drugs by respondents were examined, as were attitudes towards drug-driving. The key findings are as follows:

- **Reasons for drink-driving:** Of those who reported driving whilst suspecting that they were over the legal BAC limit for their licence class, the main reasons included a lack of alternative transport (37.8%), convenience (35.4%) and meeting the demands of the day (12.8%). A small proportion (1.8%) indicated fun and excitement as their main reason.
- **Reasons for drug-driving:** Of those who reported drug-driving, the main reasons indicated included convenience (41.5%), lack of alternative transport (27.7%), and meeting the demands of their day (15.4%). Of note was that 4.1% of respondents reported fun and excitement as their main reason, in addition to 2.1% who indicated that drug-driving is a part of their everyday life.
- **Knowledge of drugs:** Self-reported knowledge of alcohol was high in contrast to other drugs. Across all other drug types, the participant sample rated the highest level of knowledge for cannabis (16.9% reported they either knew 'a lot' or 'everything there is to know'), followed by opioid and narcotic analgesics (10.2%). A further 8.3% and 6.9% of the sample indicated this was the case for ecstasy and Ice, respectively. In contrast, the least level of knowledge was observed for GHB with 57.1% of the total sample reporting that they knew nothing about the drug.
- **Perceived danger:** Nearly all respondents indicated that they perceived some level of danger associated with drug-driving for each drug. Most respondents (85.9%) considered that fully licensed drivers having a BAC > 0.07% was 'very' or 'extremely dangerous'. Further, 83.0%, 76.7% and 57.1% of the total sample rated drug-driving on Ice, ecstasy and cannabis respectively as very or extremely dangerous.
- **Perceived impairment:** Most respondents indicated that the use of alcohol and other drugs would result in some level of impairment with respect to driving. The majority of respondents (84.3%) reported that they felt driving with a BAC above 0.07% would be either 'very' or 'extremely impairing'. Further, 79.9%, 74.5% and 58.7% of the total sample rated drug-driving on Ice, ecstasy and cannabis respectively as 'very' or 'extremely impairing'.
- **Crash risk:** Participants were asked to rate their perceived likelihood of being in a crash after having consumed alcohol and other drugs. Most respondents (85.9%) indicated a high likelihood of being involved in a crash when drink-driving with a BAC above 0.07%. Further, 79.1%, 71.4% and 54.6% of the total sample rated drug-driving on Ice, ecstasy and cannabis respectively, as having a high likelihood of crash involvement.
- **Detection by police:** Compared to all drug types, drug-driving on Ice was perceived to have the highest likelihood of detection by police (60.4%). Further 51.8% and 43.1% of the total sample indicated that they believed there was a high likelihood of being detected drug-driving having used ecstasy and cannabis, respectively.

A key finding was that respondents who reported having used cannabis, ecstasy and Ice rated their knowledge of the effects of drugs higher than non-users. In addition, these respondents rated the perceived danger associated with use and subsequent driving to be lower than non-users. Similarly, these users reported the perceived impairment, crash risk, and likelihood of detection drug-driving by police to be lower than non-users. Collectively, the findings point to an underlying rationale for these users to engage in drug-driving behaviour.

Attitudes towards countermeasures, sanctions and interventions

This section assessed the perceived effectiveness and level of support for drug-driving countermeasures. In presenting this data, an overview of the total sample specific drug-user groups was provided. In addition, differences across recent (within the last 12 months), previous (not within the last 12 months) and non-(ever) drug users were explored.

Perceived effectiveness of countermeasures on drug-driving was examined first. The key findings are noted below.

- **Cannabis users:**
  - The majority of cannabis users who reported having driven after cannabis use stated they would be 'unlikely' or 'not at all likely' to drive having had direct exposure to each of the specified countermeasures. Vehicle impoundment (88.5%) and licence-related sanctions (88.3%) were rated the highest in terms of respondents being 'unlikely' or 'not at all likely' to drive in the future, while *seeing or hearing information* attracted the lowest percentage (77.1%) of all the countermeasures rated. A small proportion of users were resistant to each countermeasure.
  - When asked about how effective they perceived each countermeasure would be in preventing others from engaging in drug-driving behaviour, vehicle impoundment was rated as being the most effective (41.4%). This was followed by licence-related sanctions (25.5%) and participation in an alcohol and/or drug rehabilitation program (22.2%).
- **Ecstasy users:**
  - The majority of ecstasy users stated that they would be 'not at all likely' or 'unlikely' to drive given direct exposure to each of the countermeasures. Seeing or hearing information attracted the lowest percentage (76.8%) of the countermeasures rated, with a Community Corrections Order (95.4%), vehicle impoundment (91.3%) and participation in alcohol and/or other drug rehabilitation programs (90.7%) rating the highest. A small proportion of users were resistant to each countermeasure.
  - When asked about how effective they perceived each countermeasure would be in preventing others from engaging in drug-driving behaviour, vehicle impoundment was rated as being the most effective (39.1%). This was followed by licence-related sanctions (25.5%), a Community Corrections Order (25.5), and participation in an alcohol and/or other drug rehabilitation program (22.2%).
- **Ice users:**
  - For Ice users, the most effective countermeasure perceived to reduce their future likelihood of drug-driving was vehicle impoundment (83.3%), a Community Corrections Order (80.6%), and participation in a drug and alcohol rehabilitation program (80%). A small proportion of users remained resistant to each countermeasure.
  - When asked about how effective they perceived each countermeasure would be in preventing others from engaging in drug-driving behaviour, vehicle impoundment was perceived to be one of the most effective countermeasures for drug-driving, followed by drug and alcohol rehabilitation programs and licence-related sanctions or penalties.

Level of support for countermeasures

With respect to level of support, random roadside drug testing (and associated penalties) attracted a very high level of support among the respondents. In addition, monitoring known offenders and combined sanction-health-based approaches were also supported by at least 80% of respondents.

When recent drug users (within the last 12 months) were contrasted with previous drug users (not within the last 12 months) and those that had never used any drugs before, the findings indicate that those with recent drug use perceived countermeasures that restrict (e.g. through a Community Corrections Order, CCO) or more deeply address their drug use problem (rehabilitation) would be more effective in reducing drug-driving than countermeasures that primarily act to deter drug-driving behaviour.

The results also indicated that the level of support for initiatives to address drug-driving is lower among individuals with self-reported recent drug use compared to previous users and non-drug users.

CONCLUSIONS AND IMPLICATIONS

These findings suggest that addressing drug-driving is complex. Given the heterogeneity of the drug-driving group as a whole, careful consideration of countermeasures is required. It is suggested here that a more nuanced approach based on drug user group needs will be required to successfully reduce drug-driving on Victorian roads.

It is highly evident that continuing to maintain the perception that one may be caught for drug-driving is essential to ensure that a deterrence effect is maintained, and indeed, this needs to be lifted from its present low state as currently perceived. This can be achieved by continuing to operate random roadside testing and there is a very high level of community support to do so. Indeed, expansion of the current program combined with community education on the effect of drugs on driving is recommended.

While all drug user groups cited support for roadside drug testing, differences emerged in the perception of the efficacy of roadside testing and sanction-based approaches in preventing future drug-driving episodes.

On this point, a lower proportion of users of (meth-)amphetamine and related substances stated that they would be deterred from drug-driving than did the cannabis group. This is especially important given the findings of the *Literature Review* that highlighted the comparatively low crash associated with cannabis use (OR: 1.3-2.0, based on published meta-analysis) as compared to the very high crash risk associated with methamphetamine use (OR: >5). In considering this, the size of the user-group is vital to consider. The findings presented here demonstrate cannabis is widely used (33% lifetime use) while methamphetamine and related drugs is used by considerably fewer people (2% lifetime use). The findings also demonstrate that there are differences across drug types in engaging in drug-driving behaviour; that is, driving whilst perceived impaired and driving within 3-hours of use.

Based on the findings presented in this report and consideration of the findings of the companion *Literature Review* (Mulvihill et al., 2020), it is suggested that for those engaging in repeated drug-driving, traditional sanction-based approaches would be less efficacious for users of methamphetamines than they are for users of cannabis, MDMA and consumers of alcohol.

Discussions with stakeholders and other inputs from the program suggest that a shift in culture and perception is needed from the traditional punitive approach of responding to those caught for drug-driving. It has been suggested that a more holistic and empowering rehabilitation approach will likely be more effective, particularly for those using methamphetamine and most likely polydrug users. Indeed, users of these drugs highlighted the value of these interventions, but also the physical removal of the vehicle, highlighting a degree of self-awareness in what might be required to prevent them from driving.

Given the study findings highlighted here, it is likely that a combination of both sanction-based and therapeutic intervention options is necessary to not only deter the behaviour but address the underlying causes of drug-driving behaviour. The ability to address the underlying issues that lead to drug-driving will likely have benefits in reducing recidivism moving forward. In order to successfully provide support and intervention to people who are caught for drug-driving, the ability to assess and match the needs of individuals through appropriate post-offence pathways will be essential. Further work on what these pathways ought to look like, and the processes they entail, needs to be carefully performed.

FUTURE RESEARCH

There are a number of avenues and themes that exist for further exploration. Future research areas could include:

- Exploring the profile of polydrug users and their attitudes towards use, perceived impairment and likely effectiveness of countermeasures.
- Exploring the disconnect between self-reported knowledge, perceived level of danger and impairment while driving.
- Examination of patterns of offending and likely impacts of specific drug-driving countermeasures, sanction and interventions on specific driver cohorts.
- Exploring inter-relationships between health state, illicit drug use and driving.
- Exploring post-offence management pathways to manage drug-drivers.

1. INTRODUCTION

1.1 BACKGROUND

Drug-driving has risen in prominence since the *Inquiry into the Effects of Drugs (Other than Alcohol) On Road Safety in Victoria 1995*. This has arguably been a consequence of the increased availability of certain types of illicit drugs in the community, which, given changes in alcohol use, may have led to shifts in motivations for illicit drug use.

Illicit drugs, as well as some prescription medications, have a range of physical and psychoactive effects that can impact both cognitive processes and motor control. The key issue then is how the use of these substances impacts safe driving (Shinar, 2017). Through a large of number of studies, the use of illicit drugs – including cannabis, meth-/amphetamines and ecstasy (MDMA), has been shown to be associated with increased crash risk.

With the State of Victoria's commitment to achieving zero serious injuries in road crashes, drug-driving represents a threat to achieving this goal.

To address this concern, a program of research into drug-driving was established under the Monash University Accident Research Centre (MUARC) Baseline Research Program. The *Research Program* had the goals of understanding the magnitude of, and motivations for, drug-use to the extent that it is relevant to addressing drug-driving behaviour. It was considered that by identifying the different patterns of use, context of use, and underlying motivations for use, effective countermeasures to reduce drug-driving could be identified.

1.2 RESPONSE OF THE VICTORIAN ROAD SAFETY AGENCIES

The problem of drug-driving has been recognised for some time. In December 2004, the Victorian Government implemented a roadside drug testing trial under the *Road Safety (Drug Driving) Act 2003* where drivers were tested for amphetamines and cannabis (THC). This followed the Standard Impairment Test (SIA) that commenced in 2000. The roadside drug testing program was expanded under legislation in 2006 to include MDMA (i.e. ecstasy). The roadside drug testing program continues to this day.

In addition to enforcement operations, the Transport Accident Commission (TAC) initiated a series of public education programs to support the enforcement initiatives, with advertisement title themes including "Double Bus", "The Cell", "Swap" (tagline: If you drive on drugs, you're out of your mind"), and "Gran" (tagline: More Drug Tests, More Places, More Often) being used. Much of the approach has been inspired by the successful random breath test program for alcohol.

Despite the investment in the world-first roadside drug screening program, there is increasing concern about drug-driving behaviour in the road safety community. This has been driven in part by the surge in crystal methamphetamine (Ice) availability and use as documented in the 2014 Victorian *Inquiry into the Supply and Use of Methamphetamines in Victoria*. Per the 2019 *National Wastewater Drug Monitoring Program*, high use levels of illicit drugs, particularly methamphetamine and cannabis, persists in the community.

Given the above context, and the increased proportion of fatality crashes associated with drug-driving in Victoria (TAC, 2017), there is a need to identify countermeasures that are likely to be effective in addressing drug-driving behaviour. Understanding community attitudes toward drug-driving, and motivations for drug-driving behaviour more specifically, is important as both factors likely play a role in the acceptability and effectiveness of countermeasures aimed at addressing this behaviour.

1.3 AIMS AND OBJECTIVES

The overarching aim of the *Research Program* was to provide inputs that can be used to inform the development of an effective drug-driving road safety strategy for Victoria. To meet this aim, the *Program* will:

- Provide a targeted review of the association between drug use and crash risk using literature and reports published since 1995 (up to 2015), including review papers and relevant expert group position papers where possible.
- Explore motivations for drug use among specific parts of the driving population.
- Quantify the extent of drug-driving in Victoria through an examination of offence data and hospitalisation data.
- Examine the attitudes of Victorian drivers toward drug-driving, including their use of alcohol and other drugs, as well as their attitude toward road safety countermeasures.

The Research Program had three components:

- Component 1: The conduct of a literature review focussed on the prevalence of drug-driving, the crash risks associated with drug-driving, and countermeasure solutions. The intention was to identify countermeasures that could be effective in reducing drug-driving behaviour in Victoria.
- Component 2: Analysis of data to enumerate the magnitude of illicit drug-driving and illicit drug-related crashes in Victoria.
- Component 3: The conduct of a population-based survey of the Victorian community with the view toward understanding alcohol and drug-use patterns, drug-driving behaviour, perceptions of the effectiveness of specific countermeasures and the level of support for each.

This report relates to Component 3 of the Research Program.

1.4 SCOPE OF THIS REPORT

This report set out to document the use of alcohol and other drugs in the Victorian community and provide an understanding of the correlates of drug-driving. Of interest were the attitudes, motivations, and knowledge of both drug use and perceived risks associated with drug-driving.

As the research program was interested in countermeasures that would reduce the incidence of drug-driving, particular attention was paid to the perceived effectiveness of a range of countermeasures and community support for each.

To inform the community survey, and to gain greater insights into drug use and drug-driving behaviour in the community, the views of drug and alcohol treatment specialists were sought. This provided added insights into the reasons underpinning drug use and abuse, potential countermeasures, and the role that treatment and rehabilitation can play in achieving reductions in drug-driving behaviour.

In line with the current roadside drug testing regime in Victoria, emphasis was placed on outcomes that relate to driving whilst under the influence of cannabis (THC), ecstasy (MDMA) and amphetamines, particularly Ice.

2. METHOD

There were two components of this report:

1. The conduct of interviews with hospital and community-based drug and alcohol treatment specialists.
2. The conduct of a large-scale population-based survey of the Victorian community.

The methods for both components are outlined below.

2.1 STAKEHOLDER ENGAGEMENT

As a first step towards understanding the current drug-driving phenomenon within the Victorian community, it was considered of value to provide insights into drug use and its associated culture from the perspective of alcohol and drug treatment providers.

In devising this part of the study, it was known that over the past decade the patterns and trends of drug use in Victoria has changed. In particular, the increased use and purity of available methamphetamine has introduced well documented public safety concerns in the community. A question then arises as to the impact of these changes on drug-driving behaviour and crash occurrence.

As described in detail in the companion *Literature Review (*Mulvihill et al., 2020), not all substance users necessarily engage in the act of drug-driving. Moreover, based on the research literature, it can be stated that the factors associated with drug-driving differ across different drug user groups.

Hospital and community-based drug and alcohol treatment and service providers are uniquely placed to inform our understanding of why individuals that consume drugs (as well as alcohol) then elect to drive. Given their experience in the treatment context, some of which is court-mandated, these specialists can also provide invaluable insight on the effectiveness of drug-driving road safety countermeasures.

2.1.1 Ethics

Ethics approval was obtained from the Monash University Human Research Ethics Committee (MUHREC).

2.1.2 Participants

Ten drug and alcohol clinicians or specialists were recruited from both Melbourne-based and regional Victoria-based organisations to ensure a representative sample. Participants were identified via online searches, researcher and stakeholder networks and 'snowballing'. Participants were eligible to participate if they were currently working in a drug and alcohol-related field, in either a research, assessment or treatment capacity.

Interviews were undertaken in the period September 2017 – October 2017.

2.1.3 Materials

A series of themes and discussion points were workshopped by the research team, which formed the talking points for the semi-structured interview. The key themes and examples of questions included are documented in Table 2.1.

2.1.4 Procedure

Contact details of eligible participants were either obtained online via their affiliated organisation or through network contacts. An invitation letter, accompanied with a research explanatory statement and consent form were emailed to eligible participants. Participants who returned the consent form and expressed their willingness to participate in the study were contacted. The research team consulted with participants to arrange a suitable time and location to conduct the semi-structured interview.

Participants engaged in a voice-recorded semi-structured interviewed that ranged between 30 to 60 minutes. Participants were informed of their right to withdraw from the study at any point they wished to do so. Participants were also reimbursed $75 for their time.

2.1.5 Data Analysis

Data obtained from the semi-structure interviews were analysed utilising qualitative methods. Specific themes were identified and an overview of the main themes are presented in Chapter 3.

TABLE 2.1 THEMES AND DISCUSSION POINTS FOR THE DRUG AND ALCOHOL STAKEHOLDER INTERVIEWS

Theme 1: Drug-use Groups, and Types of Drug-users

- What are the current trends in drug use patterns, including the types of drugs that are increasing / decreasing in the Victorian community?
- What are the combinations for poly-drug users?
- What are the demographic trends for drug users (males vs. females; younger vs. older)?
- What are the contextual factors surrounding drug users (for e.g., social use, lone use, health-related issues, dependency)?
- What are the commonly observed mental health comorbidities with drug use?

Theme 2: Drug-use and the Decision to Engage in Drug-driving

- What type of drugs are being found in those caught / likely to engage in drug-driving?
- Are there any particular subgroups of drug users that are more likely to engage in drug-driving behaviour?
- What factors influence a drug user to drive while they are on drugs? Does this differ between different types of drugs used / drug users?
- What are their motivations for engaging in this behaviour (e.g., need to be transported somewhere, part of their drug use patterns)?
- Do they understand the legal implications for their drug-driving (e.g., awareness of what is considered a drug-driving offence, awareness of sanctions, court-related matters)?
- Does an awareness of these offences impact on their decision to drug-drive?

Theme 3: Countermeasures

- What are some countermeasures that can be used to address drug-driving behaviour?
- What features would contribute to an effective countermeasure designed to target the prevention of / reduction of drug-driving behaviour?
- Does there need to be different types of countermeasures for subpopulations of drug users (e.g., will what works for cannabis users work for methamphetamine users)? How do we address this issue with the poly-drug users?

Theme 4: Treatment and Rehabilitation

- What proportion of clients are likely to / report engaging in drug-driving behaviour?
- What types of treatment / rehabilitation is offered in your organisation?
- Is drug-driving addressed in the delivery of any programs?
- What are the challenges / barriers associated with treating this population?
- What factors facilitate treatment or influence the effectiveness of treatment?
- Based on all the areas discussed, what do you feel are the key requirements for an effective drug and/or alcohol treatment program?

2.2 COMMUNITY-BASED SURVEY

In order to gain a broader understanding of drug-driving behaviour, knowledge in the community of alcohol and drugs, and attitudes towards drug-driving countermeasures, a population-based survey of Victorians was completed. This component took advantage of key themes identified in the stakeholder engagement component.

2.2.1 Ethics

Ethics approval was obtained from the Monash University Human Research Ethics Committee (MUHREC).

2.2.2 Participants

Participants were recruited via advertising on social media platforms supplemented with an online survey panel. A population-matched sample of 1,852 participants were recruited from the Victorian community. Participants were aged between 18 to 89 years. To participate in the survey, potential respondents had to have driven a vehicle or ridden a motorcycle previously. A more detailed description of participant sample characteristics is provided in the Results section and in Appendix A.

Survey data was collected over a 4-week period commencing on the 16th of January 2018. With a sole focus on drivers aged 65 years and older, an additional 4-week data collection period commending on the 3rd of March 2018 was undertaken.

2.2.3 Materials

The research team designed a two-part survey, these being:

- Part A included questions pertaining to driving history, alcohol, drug and prescription drug misuse patterns, motivations and attitudes towards drug-driving, attitudes towards countermeasures, general health and demographics.
- Part B included questions relevant to mental health, personality, aggression and alcohol-use using validated assessment questionnaires.

This report focuses on items administered in Part A of the survey.

The survey was built on the *Qualtrics* platform and completed by participants online via the advertised link or via an online panel. Where requested, participants were sent a paper copy of the survey with a reply-paid envelope back to the research team at Monash University.

2.2.4 Procedure

The survey was advertised via a range of social media platforms. Participants were invited to complete the survey online or request a paper-version of the survey. Participants were informed that participation was voluntary and they were eligible to withdraw at any point.

The survey consisted of two parts. Part A of the survey was required to be completed and participants were offered a $30 gift card as reimbursement for their time. Part B of the survey was optional and for those who elected to complete this component, a $20 gift card was offered as reimbursement, along with entry into a prize pool to win one of two electronic devices (Apple iPhone or iPad, Samsung phone or tablet).

2.2.5 Data Analysis

Upon completion of data collection, the data file was extracted from Qualtrics and analysed using the IBM Statistical Package for Social Sciences (SPSS) V. 25 for Macs. The results are presented in Chapter 4.

3. DRUG AND ALCOHOL STAKEHOLDER ENGAGEMENT

3.1 DRUG USE AND CHARACTERISTICS OF DRUG USERS

When stakeholders were asked about the characteristics of drug users, they reported that they had contact with a wide variety of individuals, both male and female across a large age range. These stakeholders identified specific groups of drug users, including recreational, high-functioning and dependent users. These three groups can be described as follows:

- Recreational drug users were defined as to those who use illicit drugs occasionally at particular events or under certain circumstances.
- High-functioning users were described as those who use drugs regularly, however, remain able to maintain everyday functioning (e.g., work and family commitments).
- Dependent users were described as those who have a Substance Use Disorder and struggle to function or experience withdrawal when not under the influence of the drug.

Across all stakeholders interviewed, there was consensus that these specific user groups will likely require varied countermeasure and intervention programs to prevent drug-driving.

In addition, it was identified that the majority of drug users encountered by interviewed stakeholders were polydrug users, frequently using more than one drug, either at the same time, or to manage the effects of one of the drugs used.

Stakeholders reported that the most common types of drugs used were cannabis, Ice, heroin and cocaine, in addition to alcohol. Notably, synthetic drugs were mentioned as being a particular concern, with new additions continuously being developed, progressively evolving, and becoming increasingly available.

Mental health concerns and illness were identified as a significant comorbidity in individuals with Substance Use Disorders. The main mental health conditions identified included PTSD, depression and anxiety. Notably, the experience of trauma – either mental or physical, was said to be common, with this often being characteristic of dependent drug-users. The findings in relation to mental health are consistent with existing research which suggests that drug use is often comorbid with Axis I disorders. This demonstrates the need to consider mental health when considering likely effective avenues for addressing drug-driving behaviour.

Take home message: The drug use population in Victoria, Australia is multi-faceted. Individuals are often polydrug users and can range in their patterns of use across recreational, high functioning to dependent users. Use is further complicated by other mental health related factors that need to be considered when considering countermeasure, and in particular treatment and rehabilitation options.

It was also of interest to gain a better understanding of contextual factors surrounding substance use. Key themes identified included that drug use:

- Is familial (i.e. has been a part of life, parents and extended family).
- Has a strong peer, or social element.
- Provides a means of coping both physically and emotionally (i.e. dependence developed from coping with physical ailments such as chronic pain or protects from other difficult emotions such as grief, depression and anxiety).
- To maintain everyday functioning.

Take home message: There are a range of contextual factors as to why individuals use drugs. These factors may perpetuate continued use and increase their engagement in other high-risk behaviours such as drug-driving.

3.2 SUBSTANCE USE AND THE DECISION TO ENGAGE IN DRUG-DRIVING

Developing a better understanding of the motivations underlying drug-driving was a key priority. This was explored in detail with each of the stakeholders' interviewed.

The general consensus across all stakeholders interviewed was that the majority of drug-driving behaviour is motivated by practical needs; that is, for convenience in travelling from one place to another. This was especially the case for those living in rural areas. The need to travel was however unique.

For the type of drug-users that each of these stakeholders had contact with, they were by definition those who were engaged in drug and alcohol treatment programs. By and large, many had previously been caught drug-driving, and were attending treatment or counselling sessions on a court-ordered basis. Hence, for this group, driving was a means to an end, including the purchase of drugs for themselves or their partner or friends, to attend counselling sessions, court, and so on.

Limited public transport options or safety concerns about travelling on public transport were issues identified for reasons underpinning the choice to drive.

Further, some stakeholders identified that often this cohort of individuals can be limited in their ability to plan and engage in forward thinking. As a result, they are likely to engage in drug-driving behaviour without consideration of potential consequences.

Another identified issue was the limited awareness of specific legal implications associated with drug-driving. Whilst most individuals were said to be aware that being caught for drug-driving means that they will be "in trouble", the majority were reportedly not aware of the specific sanctions, nor their severity.

Take home message: The main motivation for drug-driving is for practical purposes. It was identified that there is a need to focus on countermeasures that will assist in separating drug use with driving, and increasing the perception of the likelihood that one will be drug-tested. It was also considered to be important to ensure that the individuals are aware of the legal implications and consequences of being caught for drug-driving.

3.3 COUNTERMEASURES

When stakeholders were asked about effective countermeasures to address drug-driving behaviour, the overall consensus from those interviewed was that there is a need for a therapeutic–justice approach to managing drug-driving offenders.

Whilst it was acknowledged that sanctions are important, options for treatment and rehabilitation were also highlighted as being crucial in order to address the underlying issues associated with drug use and to reduce re-offending. In particular, education programs about the dangers associated with drug-driving and community awareness were perceived to have limited value on their own.

Whilst some stakeholders supported the use of fear campaigns, others suggested media campaigns should utilise a more empowering approach. It was also highlighted that it is essential to avoid shaming campaigns as it was viewed this approach further increases feelings of isolation and disconnect within the drug dependent group. It was noted in discussions that this group already feel marginalised from society, including from health-care services and others with 'authority'.

With regard to enforcement, there was a general consensus that increasing the perception of likelihood of being caught will support deterring drug-driving. It was considered that this would be particularly effective for recreational and high-functioning users, but less so for highly dependent users. Hence, there was strong support that the perceived risk of being caught is a strong deterrent for drug-driving behaviour.

Take home message: The overall consensus was that a therapeutic-justice model approach to managing drug-driving offenders - particularly those with dependency issues, is necessary. It was reflected that this population often feels marginalised and often perceive the *'system'* as punitive. A shift in this perception will likely contribute to empowering individuals to change their behaviour. Therefore, inclusion of both sanction-based and treatment-based countermeasures was supported among these treatment providers.

3.4 TREATMENT AND REHABILITATION

The treatment and rehabilitation needs of drug-drivers were discussed with stakeholders. There was general consensus that there is a need to increase the availability of services to ensure that client needs can be met. Whilst some drug users caught for drug-driving will likely be resistant to treatment and rehabilitation, it was said to be important to utilise the opportunity of having been caught as an opportunity to link offenders to available health services. In order to achieve this, it was stated that effective screening methods would be needed to direct individuals towards appropriate treatment pathways.

Another important factor identified with respect to treatment and rehabilitation is the need to provide supports for drug users to attend treatment and rehabilitation. Therefore, accessibility of the treatment location and transportation are additional factors to consider.

There was universal agreement that drug-driving is often a manifestation, or consequence, of broader mental health issues including Substance Use Disorder and a range of other comorbid conditions. Hence, treatment and rehabilitation of mental health issues, alongside drug use is a vital component of addressing drug-driving behaviour.

Take home message: Being caught for drug-driving provides an opportunity for individuals to be linked in with services matched to individual offender needs. Moving forward, it will be essential to develop effective screening processes to direct individuals to appropriate treatment and rehabilitation options. Reductions in drug-driving behaviour will to a large extent be dependent on the success and effectiveness of these pathways.

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4. COMMUNITY SURVEY ON ATTITUDES TOWARDS THE USE OF ALCOHOL AND ILLICIT DRUGS, AND DRIVING

This chapter provides findings from the community survey that was designed to capture the attitudes of Victorians towards the use of alcohol, illicit drugs and misuse (or abuse) of prescription medication and driving. The results are discussed as follows: participant characteristics, driving history, substance-use history, motivations for drug-driving, and attitudes towards countermeasures. In addition, a comparison of key drug user groups (recent versus previous versus never used before) was completed to provide an integrated overview of crash and offence history, along with differences in perceived effectiveness and support for a range of countermeasures designed to address drug-driving behaviour.

4.1 PARTICIPANT CHARACTERISTICS

A population-matched participant sample was recruited for the survey, with criteria based on residential location, gender and age per the Australian Bureau of Statistics Census Data (ABS, 2016). This was done to ensure that the findings from the results could be generalised to the Victorian community. Table 4.1 provides an overview of the proportion of respondents distributed across regions throughout Victoria, Australia.

TABLE 4.1 PROPORTION OF PARTICIPANTS BY RESIDENTIAL REGION IN VICTORIA

Residential Location (Region in Victoria)	Percent
Melbourne – CBD, Southbank, Docklands and inner suburbs (Essendon, Carlton, Parkville, Northcote, Fitzroy, North Melbourne, South Melbourne, Port Melbourne, South Yarra, Toorak, Armadale, Prahran, Windsor, Richmond)	10.5
Melbourne – Inner Eastern suburbs (Boroondara, Manningham, Whitehorse)	6.6
Melbourne – Inner South suburbs (Bayside, Glen Eira, Kingston, Stonnington: (East) Malvern; Glen Iris	7.3
Melbourne – North East suburbs (Banyule, Darebin, Nillumbik, Kinglake, Whittlesea, Wallen)	7.8
Melbourne – North West suburbs (Keilor, Macedon Ranges, Moreland North: Pascoe Vale; Fawkner, Sunbury, Tullamarine, Broadmeadows)	6.1
Melbourne – Outer Easter suburbs (Knox, Manningham: Bulleen; Templestowe; Doncaster; Doncaster East, Whitehorse: Box Hill; Box Hill North; Burwood; Burwood East, Blackburn South, Yarra Ranges)	8.9
Melbourne – South Eastern suburbs (Cardinia, Emerald, Cockatoo, Casey, Berwick, Cranbourne, Garfield, Glen Waverley, Dandenong, Springvale, Monash, Mulgrave)	13.6
Melbourne – Western suburbs (Altona, Bacchus Marsh, Brimbank, Caroline Springs, Footscray, Hobsons Bay, Maribynong, Melton, Point Cook, Wyndham, Yarraville)	11.4
Frankston, Seaford, and Mornington Peninsula	5.0
Ballarat and surrounds (includes Creswick, Daylesford, Ballan, Maryborough, Pyrenees)	2.5
Bendigo and surrounds (includes Heathcote, Castlemaine, Kyneton, Loddon, Elmore)	2.9
Geelong and surrounds (includes Barwon: Bannockburn; Winchelsea; Golden Plains, Surf Coast, Bellarine)	4.6
Hume and surrounds (includes Alpine, Benalla, Bright, Broadford, Euroa, Kilmore, Mount Beauty, Nagambie, Rutherglen, Seymour, Upper Goulburn Valley, Wangaratta, Wodonga)	2.4
La Trobe Valley and Gippsland (includes Baw, Gippsland, Bruthen, Omeo, Paynesville, Lake King, Alps (east), Orbost, French Island, Phillip Island, Wonthaggi, Inverloch, Foster, Leongatha, Wellington)	4.5
North West Victoria (includes Grampians, Wimmera, Horsham, Nhill, Ararat, Stawell, St Arnaud, Mildura, Murray River, Swan Hill)	2.0
Shepparton and surrounds (includes Campaspe, Moira)	1.8
Warrnambool and South West Victoria (includes Glenelg, Southern Grampians, Colac, Corganamite, Moyne, Otway, Portland)	1.8

The total sample comprised 1,852 participants, aged between 18 and 89 years (*Mean* = 43.63 years, *SD* = 16.48 years). Of these, 50.5% were males (*Mean* = 44.06 years, *SD* = 17.31 years) and 49.5% were females (*Mean* = 43.19 years, *SD* = 15.58 years).

From a sampling perspective, with an estimated 4,825 million Victorians 18 years of age and older and a sample size of 1852, the margin of error was estimated to be +/-2.28% (95% confidence). Figure 4.1 presents the breakdown of age groups, across gender. As it can be seen, age was similarly distributed across gender.

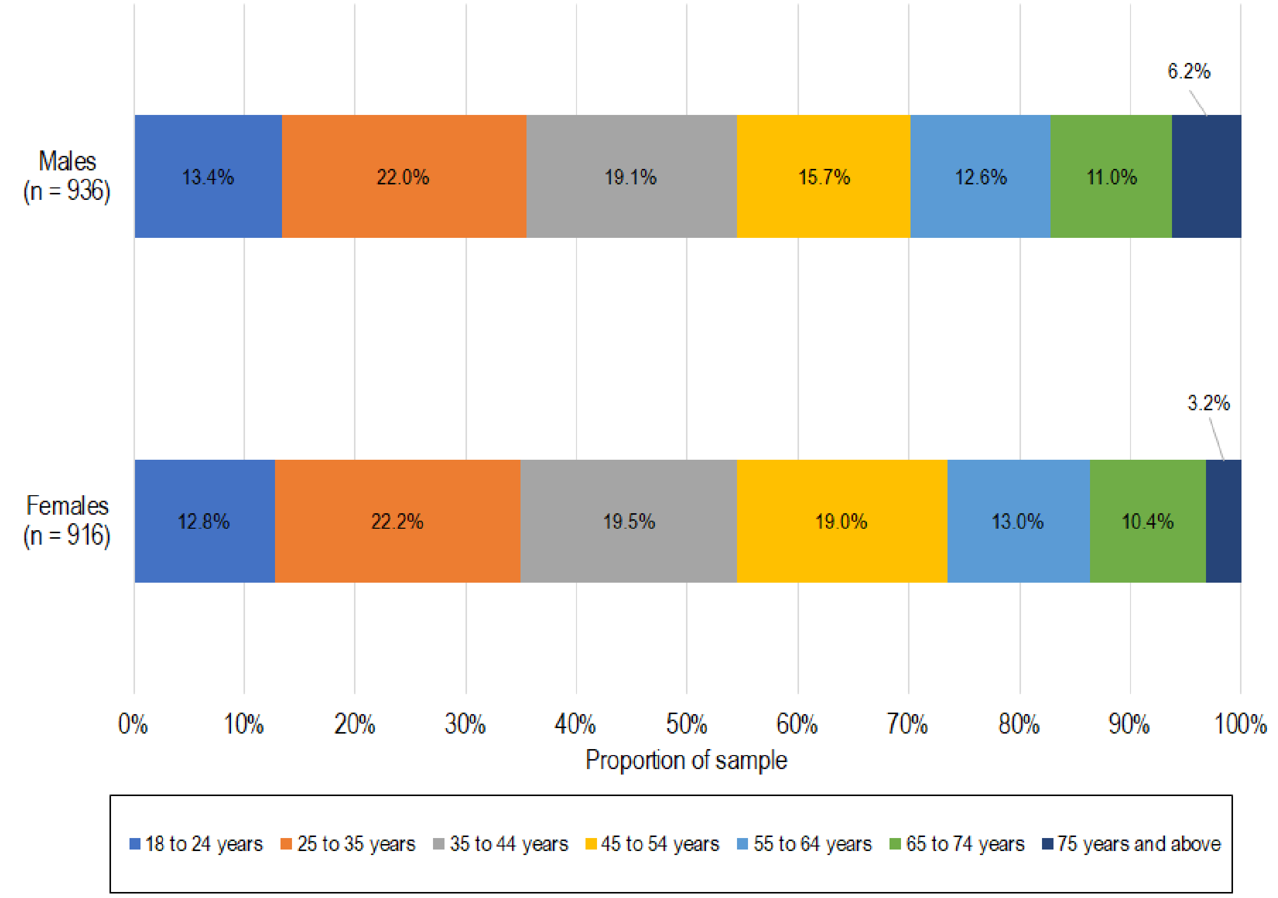

FIGURE 4.1 AGE CATEGORY DISTRIBUTION OF THE TOTAL SAMPLE ACROSS GENDER (N = 1,852)

Over half (53.8%) of the respondents were university level educated, with 30.1% indicating holding an undergraduate or honours degree, 12.4% with a postgraduate degree, and a further 11.3% having a masters, doctorate or PhD. One-quarter (23.3%) reported having a Year 12 or lower-level qualification, and 22.0% indicated completing either a Tertiary Orientation Program (TOP), apprenticeship or TAFE qualification (or equivalent).

The majority of participants (70.3%) indicated that they were employed, with 44.3% of the sample working full-time. Of the remaining participants, 3.6% reported they were looking for work, 15.4% were retired, 5.9% were students, and a further 4.8% selected 'other'.

Approximately half (50.5%) reported that they were married, 14.7% reported a de-facto relationship, 26.8% indicated that they were single, 2.5% reported being widowed, and 5.5% selected 'other'.

Overall, the population-matched sample provided a representative group of the Victorian community based on location, gender and age. The sample consisted of the full range of employment and education and training qualifications, as well as relationship status. This provides confidence that the findings reported here are reflective of the broader Victorian population.

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4.2 DRIVING HISTORY

As driving was the primary behaviour of interest in this study a brief overview of driving exposure measures is provided.

Of the total sample, 98.5% reported they had driven within the last 12 months with most (82.2%) respondents indicating that they drove daily. Figure 4.2 provides a breakdown of the average number of kilometres driven each week by participants.

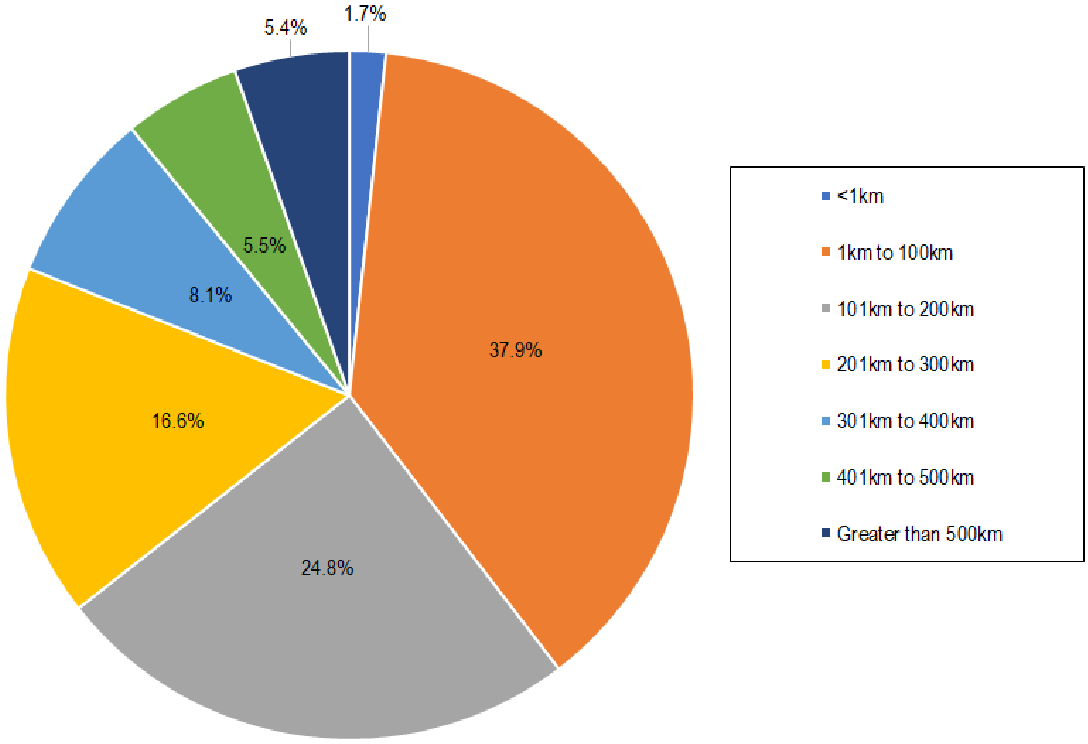

FIGURE 4.2 AVERAGE WEEKLY KILOMETRES DRIVEN ACROSS THE TOTAL SAMPLE (N = 1,852)

Participants were asked to indicate the number of hours, on average, that they drove per week. Across the entire sample, the mean number of hours driven was 8.6 (*SD* = 8.3), with the median number of hours being 6.0 hours (Range = 0 – 70 hours). The distribution of the reported time spent driving per week was as follows: 58.5% drove up to 7 hours per week; 26.0% drove between 8 - 14 hours per week; 11.7% drove between 15 - 28 hours per week; 3.5% drove between 29 - 56 hours per week and 0.4% reported driving more than 56 hours per week (the highest being 70 hours per week).

Licence status

Information on car, motorcycle, heavy vehicle (truck or bus) and taxi licences was captured. Of the total sample, 99.6% reported currently holding or having held a car licence, 17.7% reported currently holding or having held a motorcycle licence, 8.5% currently or had held a heavy vehicle licence and 2.2% currently or had held a taxi licence. Table 4.2 provides a breakdown of the proportion of respondents who indicated each licence type. Specific licence type indicators were not assessed for those who reported having a taxi licence.

TABLE 4.2 PERCENT OF RESPONDENTS INDICATING TYPE OF LICENCE HELD

Licence Type	Percent of Sample	Percent within Licence Class
Car Licence (n = 1844)†	99.6%†	100%
Full	88.6%	89.0%
Probationary (P1 / P2)	7.6%	7.4%
Learner (L)	1.9%	2.0%
International	1.2%	1.2%
Suspended / Cancelled	0.3%	<1.0%
Motorcycle Licence (n = 328)	17.7%	100%
Full	12.9%	72.9%
Probationary (P1 / P2)	1.1%	6.4%
Learner (L)	1.1%	6.4%
International	1.6%	8.8%
Suspended / Cancelled	1.0%	5.5%
Heavy Vehicle Licence (n = 157)	8.5%	100%
Light rigid (LR)	1.4%	16.6%
Medium Rigid (MR)	3.3%	38.9%
Heavy Combination (HC)	2.7%	31.8%
Multi-combination (MC)	0.8%	8.9%
Suspended / Cancelled	0.4%	3.8%

† 8 respondents (0.4%) indicated that they did not hold a car licence.

Previous driving offence history

Driving offence history was measured by driving-related fines and licence-related sanctions. Participants were asked if they had received a driving-related fine from the police (or court) within the last 12 months. Of the total sample, 13.3% reported that they had received a driving-related fine. Fines were received for the following, noting drivers may have received multiple fines:

- Exceeding the speed limit: 10.2% of sample.
- Running a red light: 2.0% of sample.
- Using of a mobile phone: 1.5% of sample.

Other fines were for failure to wear a seatbelt (0.8%), drink-driving (0.6%), and drug-driving (0.3%). Participants were also asked whether their licence had been suspended or disqualified (cancelled) within the last 12 months, with 1.2% reporting that this applied to them.

Crash involvement

Nearly two-thirds (63.7%) reported having ever been involved in a road crash as a driver, of which 15.2% reported that their crash was within the last 12 months. It is important to note that this crash involvement data referred to any crash involvement, whether the respondent was at fault or not at fault and includes all severities including property-damage only crashes.

4.3 DRUG USE PATTERNS AND DRIVING

4.3.1 Patterns of drug-use

Prior to examining drug-driving behaviour, it was important to establish an understanding of drug use patterns within the community. In particular, the type of drug, frequency of use, and polydrug use were of interest.

Of the total sample, 89.3% (n = 1,653) respondents reported having ever tried alcohol and/or used an illicit drug / misused prescription medication before, and 10.7% (n = 199) participants indicated that they had never tried alcohol or used an illicit drug / misused prescription medication before. Overall, 43.3% (n = 803) of respondents stated that they had specifically tried a drug other than alcohol.

Figure 4.3 illustrates the number of participants who had 'ever' tried each type of drug type and the number having used the drug within the last 12 months. The majority of respondents (89.3%) indicated having tried alcohol. Other common drugs used included cannabis (31.8%), opioids and narcotic analgesics (18.0%), benzodiazepines (12.4%), ecstasy (10.4%), and cocaine (8.6%). Frequency of use, and the use of multiple drugs is further explored below.

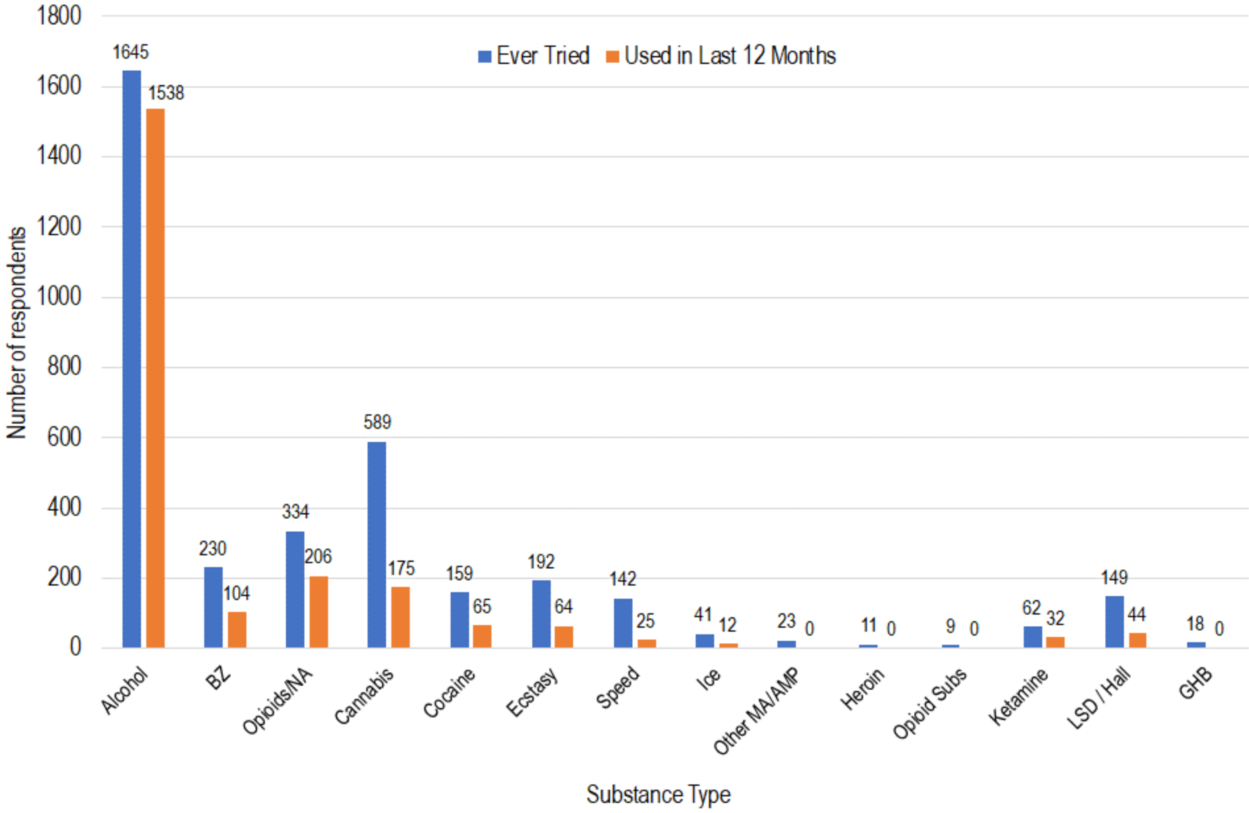

FIGURE 4.3 NUMBER OF RESPONDENTS WHO HAVE EVER TRIED EACH DRUG TYPE AND USED WITHIN THE LAST 12 MONTHS (N = 1,852)

In order to better understand polydrug use, participants were specifically asked whether they had ever used more than one drug (including alcohol) at the same time. One-quarter (24.2%) of the sample indicated that they had used more than one drug at the same time at some point in their lives. Of these, 43% had done so in the last 12-months.

The frequency of polydrug use is important to understand, particularly given the increased risk associated with driving (Mulvihill et al., 2020). While a large proportion stated that they engaged in polydrug use rarely (once or twice in the last 12 months; 44.2%) or occasionally (a few times over the course of the last 12 months; 35.8%), 11.1% reported doing so *sometimes* (monthly) and 9.0% indicated that they did this either *often* (fortnightly / weekly) or *all the time* (almost daily).

The pattern of drugs used together was also of interest. Participants reported 42 different combinations, with the most common polydrug use being alcohol and cannabis (179 respondents), alcohol and ecstasy (57 respondents), and alcohol and cocaine (49 respondents). These findings demonstrate that alcohol was most frequently present in polydrug use combinations. This is important to note in the context of drug-driving given the well documented impact of alcohol use, even at legal levels, when used in combination with other drugs.

4.3.2 Self-reported drug-drive behaviour

The proportion of respondents indicating lifetime use or use in the past 12-months of alcohol and other drugs is presented in Table 4.3. Also shown is the percentage of respondents reporting that they had ever driven whilst suspecting they were impaired by alcohol or other drugs (lifetime use), had driven in the last 12-months when they suspected they were over the legal BAC for their licence class, or had driven within 3 hours of drug use.

TABLE 4.3 RESPONDENTS (%) REPORTING HAVING DRIVEN AFTER ALCOHOL AND DRUG USE

Substance Type (n for ever tried / last 12 months)	Lifetime Use		Use in Last 12-months	
	% Having ever used	% Having driven	% Use	% Having driven
Alcohol		*Suspected impaired*		*Suspected exceed BAC (licence class)*
Alcohol (n = 1645 / 1538)	88.8%	36.3%	83.0%	13.3%
Other Drugs		*Suspected impaired*		*Within 3-hours use*
Benzodiazepines (n = 230 / 104)	12.4%	14.3%	5.6%	22.1%
Opioids and Narcotic Analgesics (n = 334 / 206)	18.0%	12.9%	11.1%	33.5%
Cannabis (n = 589 / 175)	31.8%	26.0%	9.4%	24.0%
Cocaine (n = 159 / 65)	8.6%	11.9%	3.5%	15.4%
Ecstasy (n = 192 / 64)	10.4%	16.1%	3.5%	9.4%
Speed (n = 142 / 25)	7.7%	20.4%	1.3%	12.0%
Ice (methamphetamines) (n = 41 / 12)	2.2%	29.3%	0.6%	41.7%
Other meth / amphetamines (n = 23 / ≤5)	1.2%	26.1%	<0.3%	-
Heroin (n = 11 / ≤5)	0.6%	-	<0.3%	-
Opioid Substitutes (n = 9 / ≤5)	0.5%	-	<0.3%	-
Ketamine (n = 62 / 32)	3.3%	-	1.7%	-
LSD / Hallucinogens (n = 149 / 44)	8.0%	10.7%	2.4%	-
GHB (n = 18 / ≤5)	1.0%	-	<0.3%	-

*Note: Percentages were not calculated for groups where there were ≤5 respondents; total respondents: 1852

4.3.2.1 Alcohol use

Of the respondents that had used alcohol in their life (88.8%), 36.3% reported that they had driven when they suspected that they were impaired by alcohol on at least one occasion. With reference to the past 12-months, 83% of respondents indicated they had consumed alcohol; of these, 13.3% stated that they had driven when they suspected they were in excess of the legal BAC limit for their licence class.

4.3.2.2 Use of other drugs

With respect to having ever driven whilst suspecting they were impaired by drugs other than alcohol, 29.3% of Ice users, 26.1% of 'other meth/amphetamine users, and 26.0% of cannabis users stated they had driven whilst they suspected that they were impaired by the drug at some point in their lives.

For those reporting use in the past 12 months, 41.7% of Ice users stated they had driven within 3-hours of consumption, followed by users of opioids and narcotic analgesics (33.5%), 24% of cannabis users and 22% of benzodiazepine users. Other user groups to note were cocaine (15.3%), 'speed' (12%) and ecstasy users (9.4%).

While some of these identified drugs are outside the scope of this report, this data provides contextual information of the broader drug-driving phenomenon. While some of these percentages can be seen to be low, these must be considered in the context of known crash-risks (Mulvihill et al., 2020). It is also important to note the low number of respondents in specific drug use groups, specifically, Ice.

4.4 MOTIVATIONS, KNOWLEDGE AND ATTITUDES TOWARDS DRUGS AND DRUG-DRIVING

Having established an understanding of the drug use context in Victoria, and the propensity for particular drug user groups to engage in drug-driving behaviour, the next important area to address surrounds the motivations underlying drug-driving behaviour, as well as self-reported knowledge and attitudes towards the risks associated with drug-driving. Gaining insights into why people that use drugs then elect to drive will be of value in identifying initiatives or countermeasures that could be effective in reducing and preventing future drug-driving.

4.4.1 Reasons for drink-driving and drug-driving

Drink-driving

Of those who reported that they had driven whilst suspecting that they were impaired or were over the legal BAC limit for alcohol based on their licence type, 37.8% reported that the lack of alternative transport was the main reason, 35.4% indicated convenience, and 12.8% reported meeting other demands of the day. A small proportion (1.8%) reported that their main reason for drink-driving was for "fun and excitement". Whilst the proportion in this latter subgroup is small, it is likely that they will possess particular personality characteristics that may require a different intervention approach.

Drug-driving

For drug-driving, the most commonly (41.5%) reported motivation was convenience. A further 27.7% reported the lack of alternative transport, and 15.4% stated that meeting the demands of their everyday life as their main motivation for drug-driving. Of concern was that 4.1% of respondents who indicated that "fun and excitement" was their main reason for drug-driving, with a further 2.1% reflecting that drug-driving is a part of their everyday life.

Based on these findings, it is evident that convenience and the ability to travel from one destination to another was the primary motivation for drink-driving and drug-driving. This finding lends some support to the notion that addressing environmental factors, such as public transport options and urban planning, may represent opportunities to reduce both drink-driving and drug-driving. However, it is also apparent that addressing environmental factors alone will likely be insufficient. Although small in size, a subgroup of drug-drivers and to a lesser extent, drink-drivers report sensation-seeking tendencies as their underlying reason for engaging in this behaviour. This highlights that in addition to addressing environmental factors, broader health-related factors - including psychiatric conditions, need also to be considered. This is also premised on the observation that drink-driving and drug-driving behaviour is a by-product of a combination of factors, each of which need to be addressed.

4.4.2 Knowledge of alcohol and drugs in general

Knowledge of the impact of drugs on driving is likely to influence drug-driving behaviour. As such, community perceptions and knowledge surrounding different drugs, and the risks associated with driving after using these drugs was examined.

First, participants were asked about their general knowledge of each drug of interest. This is not specific to driving but the more the general effects of alcohol and drugs. Table 4.4A and Figure 4.4 presents the level of self-reported knowledge of alcohol and a range of other drugs among all respondents. Two-thirds of the total sample stated that they knew 'a lot' or 'everything there is to know' about alcohol. This was then followed (distantly) by cannabis (16.9%) and opioid and narcotic analgesics (10.2%). The drug that the participant sample reported to have the least knowledge of was GHB, with 57.1% of respondents indicating they 'knew nothing' about the drug. Further, 53.3% and 51.0% of respondents also indicated knowing nothing about ketamine and benzodiazepines, respectively.

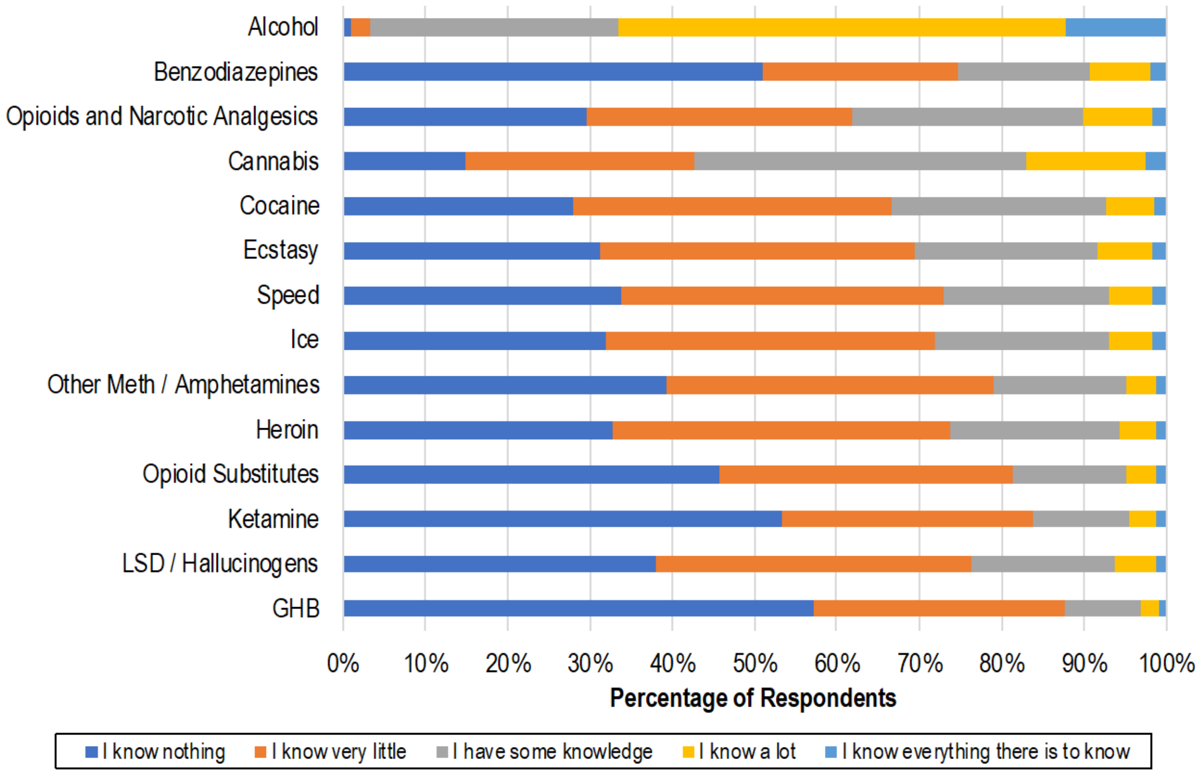

FIGURE 4.4 SELF-REPORTED LEVEL OF KNOWLEDGE OF ILLICIT DRUGS AND SELECTED PRESCRIPTION MEDICATIONS (N = 1,852, POPULATION ESTIMATE)

Aside from alcohol, the self-reported level of knowledge across most drug types included was low in the community, with less than 10% indicating that they knew either 'a lot' or 'everything there is to know', with the exception of alcohol, cannabis and opioid and narcotic analgesics which was higher.

To gain a more nuanced understanding of self-reported knowledge amongst the specific groups of interest, Tables 4.4B, 4.4C, 4.4D and 4.4E present the level of knowledge rated by non-drug users (alcohol users included), cannabis users, ecstasy users and Ice users respectively. As expected, drug users self-reported a higher level of knowledge across all drugs relative to non-drug users across the different drug types. In summary, 34.8% of cannabis users reported 'knowing a lot' or 'everything there is to know' about cannabis; 34.9% of ecstasy users reported similarly for their level of knowledge of ecstasy, while 39.0% of Ice users reported the same.

These results highlight the need to educate the community concerning the effects of drugs, including alcohol not just on the driving task, but more generally. Doing so will likely have an influence on the acceptability of specific countermeasures in the community of specific countermeasures aimed at reducing the incidence of drug-driving behaviour. The next analysis is more focused on the risks associated with drug-driving for each drug.

TABLE 4.4A SELF-REPORTED LEVEL OF KNOWLEDGE OF ALCOHOL, ILLICIT DRUGS AND SELECTED PRESCRIPTION MEDICATIONS† (POPULATION ESTIMATE)

Drug Type	I know nothing	I know very little	I have some knowledge	I know a lot	I know everything there is to know
Alcohol	0.9%	2.5%	30.0%	54.4%	12.2%
Benzodiazepines*	51.0%	23.7%	16.0%	7.4%	1.9%
Opioids and Narcotic Analgesics	29.6%	32.2%	28.0%	8.5%	1.7%
Cannabis	14.9%	27.8%	40.4%	14.4%	2.5%
Cocaine	27.9%	38.7%	26.1%	5.8%	1.5%
Ecstasy	31.1%	38.4%	22.2%	6.7%	1.6%
Speed	33.9%	39.1%	20.0%	5.4%	1.6%
Ice	32.0%	39.8%	21.2%	5.3%	1.6%
Other Meth / Amphetamines	39.2%	39.8%	16.3%	3.5%	1.3%
Heroin	32.7%	41.1%	20.5%	4.4%	1.3%
Opioid Substitutes	45.7%	35.6%	13.9%	3.5%	1.3%
Ketamine	53.3%	30.4%	11.7%	3.3%	1.2%
LSD / Hallucinogens	38.1%	38.3%	17.4%	4.9%	1.3%
GHB	57.1%	30.5%	9.3%	2.3%	0.8%

† Sample size: 1,852 (All respondents); * One missing response from for Benzodiazepines.

TABLE 4.4B NON-DRUG USERS SELF-REPORTED LEVEL OF KNOWLEDGE OF ALCOHOL, ILLICIT DRUGS AND SELECTED PRESCRIPTION MEDICATIONS† (INCLUDES ALCOHOL USERS)

Drug Type	I know nothing	I know very little	I have some knowledge	I know a lot	I know everything there is to know
Alcohol	1.4%	3.8%	34.6%	48.1%	12.1%
Benzodiazepines*	61.6%	21.7%	10.8%	4.6%	1.3%
Opioids and Narcotic Analgesics	38.8%	33.1%	21.7%	4.9%	1.3%
Cannabis	23.4%	33.6%	34.8%	7.0%	1.2%
Cocaine	33.9%	38.2%	22.4%	4.1%	1.4%
Ecstasy	37.5%	38.5%	18.2%	4.4%	1.4%
Speed	40.6%	36.5%	16.8%	4.2%	1.9%
Ice	35.9%	38.3%	19.6%	4.7%	1.6%
Other Meth / Amphetamines	44.2%	36.8%	14.3%	3.2%	1.5%
Heroin	36.2%	37.8%	20.1%	4.3%	1.6%
Opioid Substitutes	52.6%	30.5%	12.3%	3.2%	1.3%
Ketamine	60.2%	27.6%	8.6%	2.4%	1.1%
LSD / Hallucinogens	45.5%	37.1%	14.3%	2.0%	1.0%
GHB	62.1%	27.3%	8.1%	1.7%	0.9%

† Sample size: 1,053 (Non-drug users, includes alcohol users)

TABLE 4.4C CANNABIS USERS SELF-REPORTED LEVEL OF KNOWLEDGE OF ALCOHOL, ILLICIT DRUGS AND SELECTED PRESCRIPTION MEDICATIONS†

Drug Type	I know nothing	I know very little	I have some knowledge	I know a lot	I know everything there is to know
Alcohol	0.2%	0.7%	22.6%	63.5%	13.1%
Benzodiazepines*	40.6%	27.5%	20.0%	9.7%	2.2%
Opioids and Narcotic Analgesics	22.1%	33.3%	32.3%	10.7%	1.7%
Cannabis	0.8%	12.7%	51.6%	29.5%	5.3%
Cocaine	18.3%	37.5%	33.4%	8.8%	1.9%
Ecstasy	21.1%	36.5%	28.7%	11.5%	2.2%
Speed	23.8%	41.3%	25.8%	7.8%	1.4%
Ice	26.5%	40.1%	24.4%	7.0%	2.0%
Other Meth / Amphetamines	32.1%	42.4%	20.5%	3.6%	1.4%
Heroin	26.7%	44.3%	22.9%	4.8%	1.4%
Opioid Substitutes	37.0%	41.1%	16.6%	3.4%	1.9%
Ketamine	41.4%	35.3%	17.0%	4.4%	1.9%
LSD / Hallucinogens	24.4%	38.7%	24.1%	10.4%	2.4%
GHB	49.9%	34.3%	11.9%	3.1%	0.8%

† Sample size: 589 (Cannabis users).

TABLE 4.4D ECSTASY USERS SELF-REPORTED LEVEL OF KNOWLEDGE OF ALCOHOL, ILLICIT DRUGS AND SELECTED PRESCRIPTION MEDICATIONS†

Drug Type	I know nothing	I know very little	I have some knowledge	I know a lot	I know everything there is to know
Alcohol	0.0%	0.0%	21.9%	62.5%	15.6%
Benzodiazepines*	30.2%	27.1%	30.2%	9.9%	2.6%
Opioids and Narcotic Analgesics	17.7%	38.0%	29.7%	13.5%	1.0%
Cannabis	0.5%	10.9%	43.8%	37.5%	7.3%
Cocaine	7.8%	22.4%	46.4%	20.3%	3.1%
Ecstasy	1.6%	17.7%	45.8%	29.7%	5.2%
Speed	10.4%	29.7%	42.7%	15.1%	2.1%
Ice	15.1%	39.6%	31.3%	11.5%	2.6%
Other Meth / Amphetamines	25.0%	40.1%	27.1%	5.7%	2.1%
Heroin	26.0%	42.2%	23.4%	6.3%	2.1%
Opioid Substitutes	33.9%	39.1%	20.3%	3.6%	3.1%
Ketamine	28.6%	29.2%	29.7%	9.9%	2.6%
LSD / Hallucinogens	17.7%	27.6%	27.6%	22.4%	4.7%
GHB	37.5%	41.7%	13.5%	5.7%	1.6%

† Sample size: 192 (Ecstasy users).

TABLE 4.4E ICE USERS SELF-REPORTED LEVEL OF KNOWLEDGE OF ALCOHOL, ILLICIT DRUGS AND SELECTED PRESCRIPTION MEDICATIONS†

Drug Type	I know nothing	I know very little	I have some knowledge	I know a lot	I know everything there is to know
Alcohol	0.0%	2.4%	22.0%	63.4%	12.2%
Benzodiazepines*	29.3%	29.3%	22.0%	14.6%	4.9%
Opioids and Narcotic Analgesics	14.6%	46.3%	22.0%	17.1%	0.0%
Cannabis	2.4%	7.3%	34.1%	46.3%	9.8%
Cocaine	2.4%	29.3%	39.0%	24.4%	4.9%
Ecstasy	2.4%	19.5%	43.9%	29.3%	4.9%
Speed	2.4%	22.0%	43.9%	29.3%	2.4%
Ice	0.0%	14.6%	46.3%	31.7%	7.3%
Other Meth / Amphetamines	12.2%	41.5%	36.6%	7.3%	2.4%
Heroin	19.5%	46.3%	22.0%	9.8%	2.4%
Opioid Substitutes	24.4%	46.3%	19.5%	7.3%	2.4%
Ketamine	19.5%	36.6%	24.4%	17.1%	2.4%
LSD / Hallucinogens	9.8%	36.6%	26.8%	24.4%	2.4%
GHB	17.1%	48.8%	26.8%	0.0%	7.3%

† Sample size: 41 (Ice users).

4.4.3 Knowledge and perception of the risks associated with the use of alcohol and drugs in relation to driving

4.4.3.1 Perceived danger

All participants were asked to rate their perceived level of danger associated with drug-driving for each drug, the findings of which are presented in Figure 4.5 and Table 4.5A.

For all drugs, nearly all respondents (i.e., > 99%) stated there was some level of danger associated with drug-driving. Of concern, 38.9% rated the level of danger for fully licensed drivers having a BAC of 0.05-0.069 as being 'slight' or 'somewhat dangerous', although this reduced to 12.6% for driving with a BAC ≥ 0.07. In addition, 32% rated the level of danger associated with cannabis use and driving as being 'not at all', 'slight' or 'somewhat dangerous'. On the other hand, few respondents rated Ice (3.7%), GHB (3.8%), and LSD (4.4%) in this way. This discrepancy highlights how different drugs in the community are perceived, which in turn has implications for how the drug-driver road safety problem can be managed.

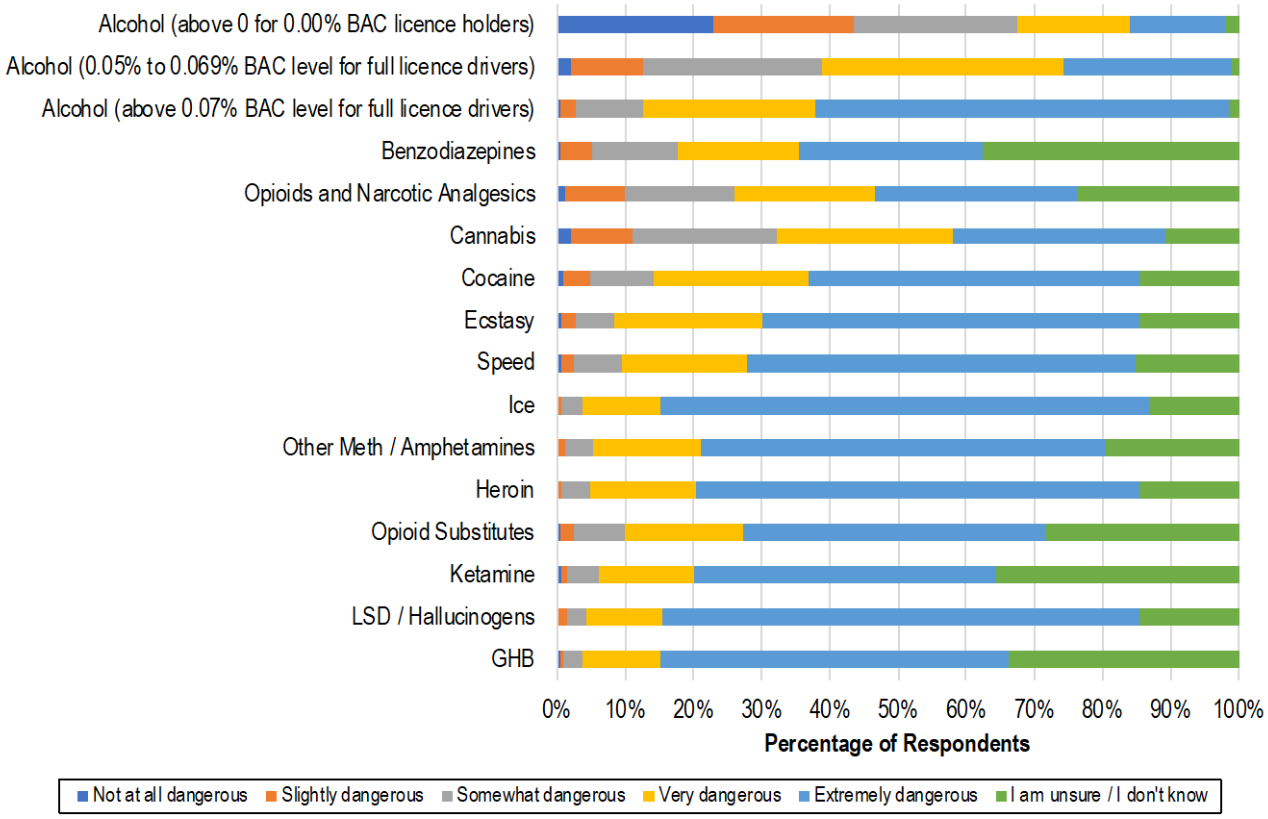

FIGURE 4.5 PERCEIVED LEVEL OF DANGER ASSOCIATED WITH DRUG-DRIVING, BY DRUG (N = 1,852)

Alternatively, it can be stated that most respondents (85.9%) perceived drink-driving (above 0.07% BAC level for full licence drivers) as being 'very' or 'extremely dangerous'. Excluding alcohol, drug-driving after consuming Ice was perceived to be 'very' or 'extremely dangerous' (83.0%), followed by LSD/hallucinogens (80.9%) and heroin (80.2%) respectively.

These results highlight that when considering perceived level of danger associated with drug-driving, Ice was identified as the most dangerous drug associated with driving following use. Further, 76.7% and 57.1% felt that drug-driving on ecstasy and cannabis respectively would be 'very' or 'extremely dangerous'. It is clear from this pattern of results that there is strong agreement across the community sample that drug-driving poses some level of danger, however, this is seen to vary across different drug types.

TABLE 4.5A PERCEIVED LEVEL OF DANGER ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG† (POPULATION ESTIMATE)

Drug Type	Not at all dangerous	Slightly dangerous	Somewhat dangerous	Very dangerous	Extremely dangerous	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	22.8%	20.8%	23.9%	16.5%	13.9%	2.1%
Alcohol (0.05% to 0.069% BAC level for full licence drivers)	2.1%	10.5%	26.3%	35.2%	25.0%	0.9%
Alcohol (above 0.07% BAC level for full licence drivers)	0.5%	2.2%	9.9%	25.2%	60.7%	1.5%
Benzodiazepines	0.5%	4.7%	12.5%	17.8%	26.9%	37.7%
Opioids and Narcotic Analgesics	1.3%	8.6%	16.1%	20.5%	29.7%	23.8%
Cannabis	2.1%	8.9%	21.1%	25.9%	31.2%	10.8%
Cocaine	0.9%	3.9%	9.4%	22.7%	48.4%	14.6%
Ecstasy	0.8%	1.9%	5.8%	21.6%	55.1%	14.8%
Speed	0.6%	1.9%	6.9%	18.4%	56.9%	15.3%
Ice	0.2%	0.6%	2.9%	11.5%	71.5%	13.2%
Other Meth / Amphetamines	0.3%	0.9%	4.2%	15.7%	59.3%	19.7%
Heroin	0.2%	0.5%	4.2%	15.5%	64.7%	14.8%
Opioid Substitutes	0.4%	2.2%	7.5%	17.1%	44.5%	28.3%
Ketamine	0.6%	0.9%	4.5%	14.0%	44.3%	35.6%
LSD / Hallucinogens	0.3%	1.1%	3.0%	10.9%	70.0%	14.7%
GHB	0.4%	0.5%	2.9%	11.3%	51.0%	33.9%

† Sample size: 1,852 (All respondents)

The perceived level of danger associated with drink-driving and drug-driving for non-drug users (alcohol users included), cannabis users, ecstasy users and Ice users was examined (Tables 4.5B, 4.5C, 4.5D, 4.5E).

Overall, fewer respondents within the drug user groups rated drug-driving as 'extremely' or 'very dangerous' compared to that reported by non-drug user respondents. In summary, 43.9% of cannabis users reported that driving after using cannabis was 'very' or 'extremely dangerous'; 68.8 % of ecstasy users reported similarly for driving after use of ecstasy, whilst 70.7% of Ice users indicated the same for driving following use. These results demonstrate that there is recognition that drug-driving poses significant dangers even within the specific drug user groups.

TABLE 4.5B NON-DRUG USERS SELF-REPORTED PERCEIVED LEVEL OF DANGER ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG† (INCLUDES ALCOHOL USERS)

Drug Type	Not at all dangerous	Slightly dangerous	Somewhat dangerous	Very dangerous	Extremely dangerous	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	23.3%	19.3%	25.1%	15.3%	14.3%	2.8%
Alcohol (0.05% to 0.069% BAC level for full licence drivers)	1.7%	9.3%	24.7%	35.7%	27.5%	1.0%
Alcohol (above 0.07% BAC level for full licence drivers)	0.7%	1.8%	9.8%	23.7%	62.4%	1.6%
Benzodiazepines	0.5%	2.2%	10.2%	15.2%	31.1%	40.9%
Opioids and Narcotic Analgesics	0.9%	4.6%	13.1%	18.9%	34.1%	28.5%
Cannabis	0.7%	3.8%	16.2%	25.5%	38.4%	15.4%
Cocaine	0.6%	1.3%	5.6%	20.2%	56.0%	16.2%
Ecstasy	0.4%	0.8%	3.8%	18.9%	59.4%	16.7%
Speed	0.4%	0.9%	3.9%	15.8%	60.8%	18.2%
Ice	0.3%	0.3%	2.0%	10.2%	72.3%	15.0%
Other Meth / Amphetamines	0.3%	0.4%	2.9%	13.7%	61.8%	20.9%
Heroin	0.3%	0.3%	4.0%	15.0%	63.4%	17.0%
Opioid Substitutes	0.6%	1.3%	6.1%	16.3%	46.1%	29.6%
Ketamine	0.9%	0.6%	4.6%	12.1%	44.2%	37.8%
LSD / Hallucinogens	0.5%	0.6%	3.0%	10.3%	67.1%	18.5%
GHB	0.6%	0.3%	3.2%	10.5%	51.0%	34.4%

† Sample size: 1,053 (Non-drug users, includes alcohol users)

TABLE 4.5C CANNABIS USERS PERCEIVED LEVEL OF DANGER ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG†

Drug Type	Not at all dangerous	Slightly dangerous	Somewhat dangerous	Very dangerous	Extremely dangerous	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	22.9%	23.1%	21.9%	18.7%	12.2%	1.2%
Alcohol (0.05% to 0.069% BAC level for full licence drivers)	2.5%	13.8%	29.2%	34.0%	19.5%	1.0%
Alcohol (above 0.07% BAC level for full licence drivers)	0.5%	2.4%	11.0%	29.2%	55.2%	1.7%
Benzodiazepines	0.5%	7.1%	14.8%	19.2%	22.1%	36.3%
Opioids and Narcotic Analgesics	2.0%	11.7%	19.4%	21.9%	24.8%	20.2%
Cannabis	5.1%	18.8%	28.4%	24.4%	19.5%	3.7%
Cocaine	1.4%	8.7%	16.1%	25.0%	34.6%	14.3%
Ecstasy	1.4%	3.6%	9.2%	26.5%	45.8%	13.6%
Speed	1.2%	3.6%	12.6%	22.2%	48.4%	12.1%
Ice	0.2%	1.2%	4.4%	13.4%	68.1%	12.7%
Other Meth / Amphetamines	0.3%	1.5%	6.6%	18.3%	52.6%	20.5%
Heroin	0.2%	0.7%	5.1%	16.5%	64.3%	13.2%
Opioid Substitutes	0.2%	3.2%	9.2%	17.1%	40.6%	29.7%
Ketamine	0.3%	1.5%	4.2%	16.3%	43.3%	34.3%
LSD / Hallucinogens	0.0%	2.0%	3.2%	12.2%	72.3%	10.2%
GHB	0.0%	0.8%	2.9%	11.9%	47.9%	36.5%

† Sample size: 589 (Cannabis users).

TABLE 4.5D ECSTASY USERS PERCEIVED LEVEL OF DANGER ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG†

Drug Type	Not at all dangerous	Slightly dangerous	Somewhat dangerous	Very dangerous	Extremely dangerous	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	24.5%	19.8%	20.3%	20.8%	13.5%	1.0%
Alcohol (0.05% to 0.069% BAC level for full licence drivers)	3.6%	17.2%	23.4%	32.8%	21.9%	1.0%
Alcohol (above 0.07% BAC level for full licence drivers)	1.0%	2.6%	13.0%	26.6%	55.7%	1.0%
Benzodiazepines	1.6%	9.4%	17.2%	21.9%	20.8%	29.2%
Opioids and Narcotic Analgesics	2.1%	14.1%	17.7%	25.0%	20.8%	20.3%
Cannabis	8.3%	17.7%	29.7%	24.5%	16.1%	3.6%
Cocaine	3.1%	18.8%	29.2%	20.8%	19.8%	8.3%
Ecstasy	3.1%	7.8%	17.2%	31.8%	37.0%	3.1%
Speed	2.1%	7.3%	22.4%	26.6%	33.9%	7.8%
Ice	0.0%	1.6%	9.4%	17.2%	62.0%	9.9%
Other Meth / Amphetamines	0.0%	3.1%	11.5%	19.8%	45.3%	20.3%
Heroin	0.5%	1.0%	4.2%	16.1%	66.7%	11.5%
Opioid Substitutes	0.0%	4.2%	9.9%	17.2%	40.1%	28.6%
Ketamine	0.5%	2.6%	4.7%	20.8%	53.1%	18.2%
LSD / Hallucinogens	0.0%	2.6%	4.7%	13.0%	74.5%	5.2%
GHB	0.0%	2.1%	3.1%	15.1%	49.5%	30.2%

† Sample size: 192 (Ecstasy users).

TABLE 4.5E ICE USERS PERCEIVED LEVEL OF DANGER ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG†

Drug Type	Not at all dangerous	Slightly dangerous	Somewhat dangerous	Very dangerous	Extremely dangerous	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	24.4%	19.5%	31.7%	9.8%	14.6%	0.0%
Alcohol (0.05% to 0.069% BAC level for full licence drivers)	4.9%	22.0%	24.4%	34.1%	12.2%	2.4%
Alcohol (above 0.07% BAC level for full licence drivers)	0.0%	2.4%	14.6%	39.0%	41.5%	2.4%
Benzodiazepines	2.4%	12.2%	22.0%	22.0%	19.5%	22.0%
Opioids and Narcotic Analgesics	0.0%	17.1%	19.5%	39.0%	17.1%	7.3%
Cannabis	7.3%	26.8%	36.6%	19.5%	7.3%	2.4%
Cocaine	2.4%	9.8%	41.5%	22.0%	17.1%	7.3%
Ecstasy	2.4%	7.3%	29.3%	19.5%	39.0%	2.4%
Speed	0.0%	14.6%	39.0%	24.4%	19.5%	2.4%
Ice	0.0%	7.3%	19.5%	36.6%	34.1%	2.4%
Other Meth / Amphetamines	0.0%	12.2%	24.4%	29.3%	26.8%	7.3%
Heroin	0.0%	4.9%	4.9%	24.4%	56.1%	9.8%
Opioid Substitutes	0.0%	9.8%	12.2%	22.0%	36.6%	19.5%
Ketamine	0.0%	2.4%	7.3%	24.4%	46.3%	19.5%
LSD / Hallucinogens	0.0%	7.3%	7.3%	19.5%	63.4%	2.4%
GHB	0.0%	2.4%	7.3%	19.5%	53.7%	17.1%

† Sample size: 41 (Ice users).

4.4.3.2 Perceived impairment

Of interest was the perceived level of impairment associated with drink-driving and drug-driving (Figure 4.6, Table 4.6A). Most respondents indicated that driving after use of alcohol and drugs would likely result in at least some level of impairment. However, 3.6% of respondents stated that driving with a BAC of 0.05% to 0.069% BAC level would not be impairing at all. This value was 1.3% for cannabis.

A very high proportion of respondents (84.3%) rated driving with a BAC above 0.07% BAC and higher as 'very' or 'extremely impairing'. Excluding alcohol however, the highest proportion of respondents (79.9%) rated drug-driving on Ice as 'very' or 'extremely impairing', followed by LSD/hallucinogens (79.0%). With respect to ecstasy and cannabis, 74.5% and 58.7%, respectively, indicated that drug-driving on these specific drugs would be 'very' or 'extremely impairing'.

Similar to those ratings for level of danger associated with drug-driving, it is apparent that the majority of respondents recognise that drug-driving across any drug-type is likely to be associated with some level of impairment, however the level of perceived impairment ranges across different drug types, with Ice again being identified as the most impairing drug type relative to other drugs. The result pertaining to cannabis is consistent with the literature, where the general view among users of cannabis is that alcohol use is more impairing than cannabis in relation to driving (see *companion report, Literature Review;* Mulvihill et al., 2020).

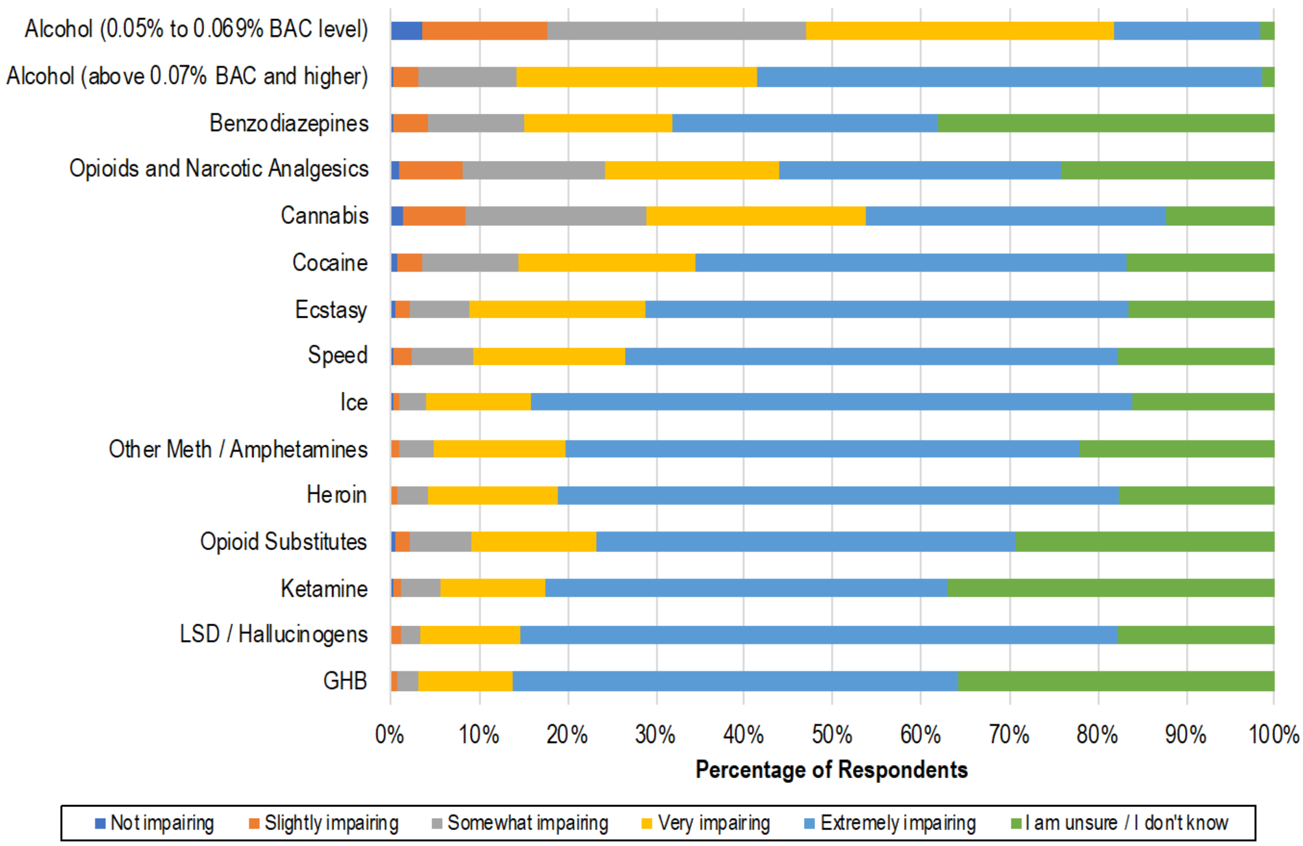

FIGURE 4.6 PERCEIVED LEVEL OF IMPAIRMENT ASSOCIATED WITH DRUG-DRIVING, BY DRUG (N = 1,852)

TABLE 4.6A PERCEIVED LEVEL OF IMPAIRMENT ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG† (POPULATION ESTIMATE)

Drug Type	Not impairing	Slightly impairing	Somewhat impairing	Very impairing	Extremely impairing	I am unsure / I don't know
Alcohol (0.05% to 0.069% BAC level)	3.6%	14.1%	29.2%	34.9%	16.5%	1.6%
Alcohol (above 0.07% BAC and higher)	0.4%	2.8%	11.0%	27.3%	57.0%	1.5%
Benzodiazepines	0.3%	3.9%	10.9%	16.8%	30.1%	38.0%
Opioids and Narcotic Analgesics	1.0%	7.1%	16.2%	19.7%	32.0%	24.1%
Cannabis	1.3%	7.2%	20.5%	24.7%	34.0%	12.3%
Cocaine	0.8%	2.7%	11.0%	19.9%	48.8%	16.8%
Ecstasy	0.5%	1.6%	6.9%	19.7%	54.8%	16.6%
Speed	0.3%	2.0%	7.1%	17.2%	55.6%	17.8%
Ice	0.3%	0.7%	2.9%	12.0%	67.9%	16.2%
Other Meth / Amphetamines	0.2%	0.7%	4.0%	14.8%	58.1%	22.1%
Heroin	0.2%	0.6%	3.4%	14.8%	63.5%	17.5%
Opioid Substitutes	0.5%	1.7%	6.9%	14.1%	47.6%	29.2%
Ketamine	0.3%	0.8%	4.5%	11.8%	45.4%	37.1%
LSD / Hallucinogens	0.2%	0.9%	2.2%	11.3%	67.7%	17.8%
GHB	0.2%	0.5%	2.4%	10.7%	50.4%	35.9%

† Sample size: 1,852 (All respondents)

To contrast the specific groups of interest, Tables 4.6B, 4.6C, 4.6D, 4.6E summarise the perceived level of impairment associated with drink-driving and drug-driving for non-drug users (alcohol users included), cannabis users, ecstasy users and Ice users, respectively. Of those who reported cannabis use, 49.5% rated drug-driving following cannabis use as 'very' or 'extremely impairing'; 67.2 of ecstasy users did the same regarding drug-driving following ecstasy use, and 68.3% of Ice users reported similarly for drug-driving following Ice use.

A notable finding was that a higher proportion of cannabis users rated alcohol at a BAC > 0.07 as being 'extremely impairing' (53.7%) with respect to driving compared to cannabis use (23.4%). This is also seen in the ratings given by MDMA and Ice users compared to the impairing effects of these two drugs on driving.

Overall, the findings also demonstrate that there is a good level of recognition that drink-driving at higher BAC levels and drug-driving poses significant impairing effects, although there is a sub-cohort among the user groups that rate consumption of specific drugs as being 'slightly' or 'somewhat impairing'. This perception may be linked to their propensity to drive following drug consumption.

TABLE 4.6B NON-DRUG USERS SELF-REPORTED PERCEIVED LEVEL OF IMPAIRMENT ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG† (INCLUDES ALCOHOL USERS)

Drug Type	Not impairing	Slightly impairing	Somewhat impairing	Very impairing	Extremely impairing	I am unsure / I don't know
Alcohol (0.05% to 0.069% BAC level)	3.4%	12.4%	27.7%	35.9%	18.4%	2.1%
Alcohol (above 0.07% BAC and higher)	0.6%	2.3%	10.3%	27.2%	57.6%	2.1%
Benzodiazepines	0.3%	2.2%	7.3%	14.5%	33.8%	41.9%
Opioids and Narcotic Analgesics	0.7%	4.1%	12.0%	18.9%	37.0%	27.4%
Cannabis	0.7%	3.4%	15.7%	22.6%	40.6%	17.0%
Cocaine	0.4%	1.0%	6.2%	17.7%	56.1%	18.6%
Ecstasy	0.3%	0.9%	3.7%	16.4%	59.3%	19.5%
Speed	0.2%	0.7%	3.8%	14.3%	59.6%	21.4%
Ice	0.4%	0.4%	1.9%	10.5%	68.5%	18.3%
Other Meth / Amphetamines	0.2%	0.2%	2.8%	12.7%	59.5%	24.6%
Heroin	0.2%	0.6%	3.3%	13.4%	62.7%	19.8%
Opioid Substitutes	0.5%	0.9%	5.7%	12.7%	49.3%	30.9%
Ketamine	0.5%	0.7%	3.9%	11.0%	44.0%	40.0%
LSD / Hallucinogens	0.3%	0.8%	1.8%	9.4%	64.9%	22.9%
GHB	0.3%	0.6%	2.1%	10.0%	49.8%	37.3%

† Sample size: 1,053 (Non-drug users, includes alcohol users)

TABLE 4.6C CANNABIS USERS PERCEIVED LEVEL OF IMPAIRMENT ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG†

Drug Type	Not impairing	Slightly impairing	Somewhat impairing	Very impairing	Extremely impairing	I am unsure / I don't know
Alcohol (0.05% to 0.069% BAC level)	4.2%	17.7%	32.1%	32.1%	12.7%	1.2%
Alcohol (above 0.07% BAC and higher)	0.2%	3.9%	13.4%	28.0%	53.7%	0.8%
Benzodiazepines	0.2%	5.8%	14.8%	18.0%	24.6%	36.7%
Opioids and Narcotic Analgesics	1.5%	10.4%	20.4%	18.0%	26.5%	23.3%
Cannabis	2.9%	14.3%	28.7%	26.1%	23.4%	4.6%
Cocaine	1.4%	5.9%	18.7%	22.9%	35.0%	16.1%
Ecstasy	0.7%	3.1%	11.5%	24.8%	45.8%	14.1%
Speed	0.7%	4.6%	12.4%	20.4%	48.2%	13.8%
Ice	0.2%	1.2%	4.2%	13.4%	66.2%	14.8%
Other Meth / Amphetamines	0.3%	1.2%	6.8%	16.6%	54.7%	20.4%
Heroin	0.2%	0.5%	4.1%	15.8%	64.3%	15.1%
Opioid Substitutes	0.5%	2.7%	8.3%	15.4%	43.1%	29.9%
Ketamine	0.2%	1.2%	5.1%	13.9%	45.7%	34.0%
LSD / Hallucinogens	0.2%	1.2%	2.9%	14.3%	70.3%	11.2%
GHB	0.2%	0.3%	2.5%	12.2%	48.2%	36.5%

† Sample size: 589 (Cannabis users).

TABLE 4.6D ECSTASY USERS PERCEIVED LEVEL OF IMPAIRMENT ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG†

Drug Type	Not impairing	Slightly impairing	Somewhat impairing	Very impairing	Extremely impairing	I am unsure / I don't know
Alcohol (0.05% to 0.069% BAC level)	5.7%	21.4%	28.6%	31.3%	12.5%	0.5%
Alcohol (above 0.07% BAC and higher)	0.5%	4.7%	16.7%	27.1%	51.0%	0.0%
Benzodiazepines	0.5%	7.8%	15.6%	20.3%	22.9%	32.8%
Opioids and Narcotic Analgesics	1.6%	12.0%	20.3%	16.7%	24.5%	25.0%
Cannabis	4.7%	15.6%	31.8%	25.5%	16.7%	5.7%
Cocaine	3.1%	12.0%	34.4%	21.9%	19.8%	8.9%
Ecstasy	1.0%	6.3%	20.3%	31.8%	35.4%	5.2%
Speed	1.0%	8.3%	24.0%	24.5%	32.8%	9.4%
Ice	0.0%	1.6%	8.3%	18.2%	56.8%	15.1%
Other Meth / Amphetamines	0.0%	2.6%	9.9%	20.8%	43.2%	23.4%
Heroin	0.5%	0.5%	3.6%	15.1%	65.6%	14.6%
Opioid Substitutes	1.0%	2.1%	9.9%	15.1%	42.7%	29.2%
Ketamine	0.5%	1.0%	9.4%	15.6%	53.6%	19.8%
LSD / Hallucinogens	0.5%	0.0%	4.7%	14.6%	71.4%	8.9%
GHB	0.5%	0.5%	3.1%	15.1%	49.5%	31.3%

† Sample size: 192 (Ecstasy users).

TABLE 4.6E ICE USERS PERCEIVED LEVEL OF IMPAIRMENT ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING, BY DRUG†

Drug Type	Not impairing	Slightly impairing	Somewhat impairing	Very impairing	Extremely impairing	I am unsure / I don't know
Alcohol (0.05% to 0.069% BAC level)	4.9%	26.8%	31.7%	22.0%	12.2%	2.4%
Alcohol (above 0.07% BAC and higher)	0.0%	0.0%	26.8%	26.8%	46.3%	0.0%
Benzodiazepines	0.0%	9.8%	14.6%	31.7%	19.5%	24.4%
Opioids and Narcotic Analgesics	2.4%	17.1%	19.5%	19.5%	31.7%	9.8%
Cannabis	4.9%	24.4%	39.0%	24.4%	4.9%	2.4%
Cocaine	4.9%	14.6%	36.6%	26.8%	12.2%	4.9%
Ecstasy	2.4%	7.3%	17.1%	36.6%	34.1%	2.4%
Speed	2.4%	12.2%	29.3%	24.4%	29.3%	2.4%
Ice	0.0%	9.8%	19.5%	26.8%	41.5%	2.4%
Other Meth / Amphetamines	0.0%	12.2%	17.1%	26.8%	31.7%	12.2%
Heroin	0.0%	4.9%	2.4%	19.5%	61.0%	12.2%
Opioid Substitutes	0.0%	4.9%	22.0%	17.1%	41.5%	14.6%
Ketamine	0.0%	2.4%	2.4%	24.4%	56.1%	14.6%
LSD / Hallucinogens	0.0%	4.9%	4.9%	17.1%	70.7%	2.4%
GHB	0.0%	2.4%	2.4%	22.0%	53.7%	19.5%

† Sample size: 41 (Ice users).

4.4.3.3 Crash risk

It has been well established that drug-driving is associated with an increased crash risk (refer to companion report, *Literature Review;* Mulvihill et al., 2020). To explore what the Victorian community believe, participants were asked to rate the perceived likelihood of being involved in a crash when driving following use of each drug, with findings presented in Figure 4.7 and Table 4.7A.

Across all drug types, driving with a BAC of 0.07% BAC and higher was perceived to have the highest likelihood of being involved in a crash, where 85.9% of respondents indicated that this was 'likely' or 'very likely'. Excluding alcohol, 79.1% of respondents stated that the likelihood of being involved in a crash following the use of Ice was 'likely' or 'very likely', while 71.4% and 54.6% of respondents reported that drug-driving following ecstasy or cannabis use, respectively, would 'likely' or 'very likely' lead to being involved in a crash.

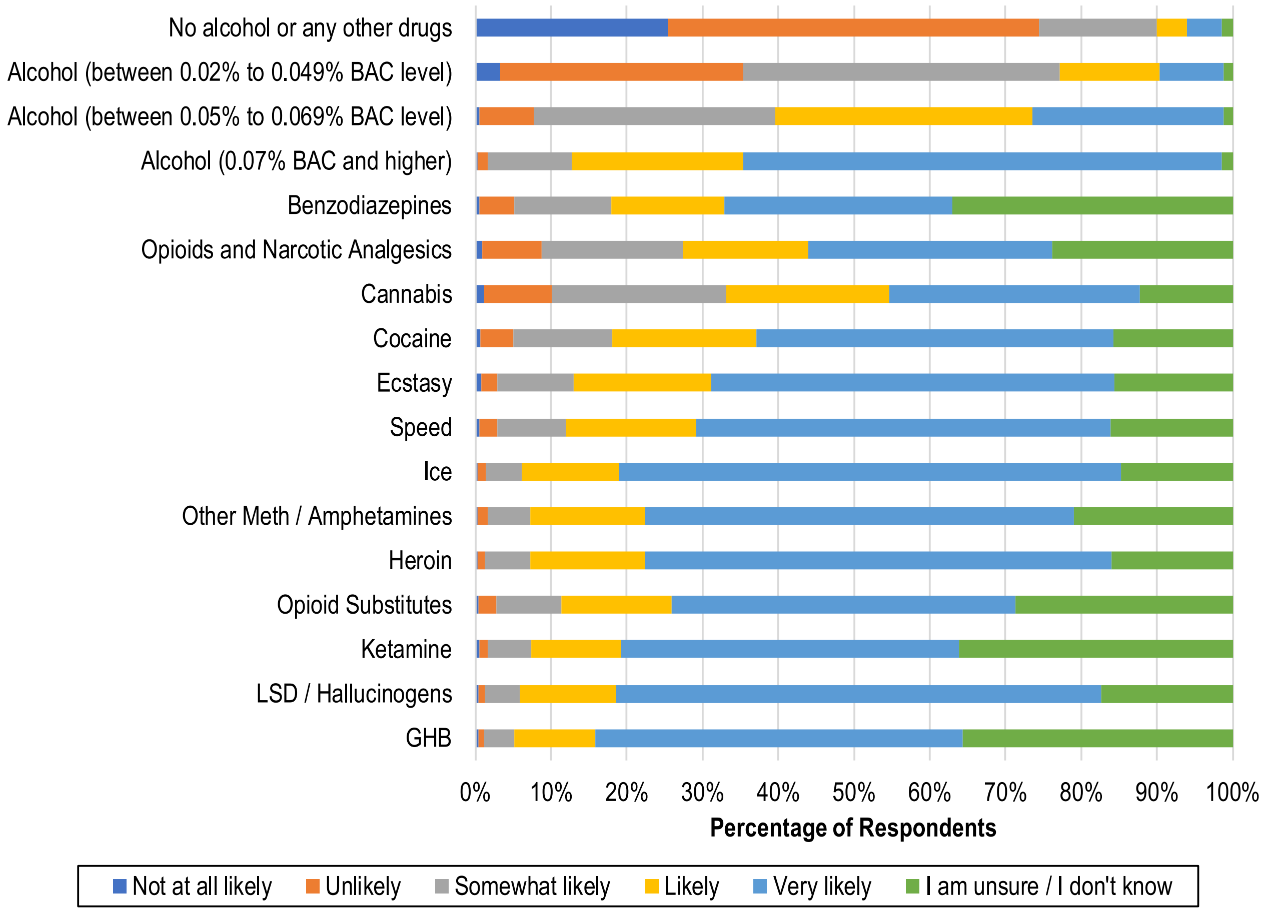

FIGURE 4.7 PERCEIVED LIKELIHOOD OF CRASH INVOLVEMENT ASSOCIATED WITH DRUG-DRIVING, BY DRUG (N = 1,852)

TABLE 4.7A PERCEIVED LIKELIHOOD OF CRASH INVOLVEMENT ASSOCIATED WITH THE USE OF ALCOHOL AND OTHER DRUGS, BY DRUG† (POPULATION ESTIMATE)

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
No alcohol or any other drugs	25.4%	48.9%	15.6%	3.9%	4.6%	1.5%
Alcohol (between 0.02% to 0.049% BAC level)	3.3%	32.1%	41.8%	13.1%	8.5%	1.2%
Alcohol (between 0.05% to 0.069% BAC level)	0.6%	7.1%	31.9%	33.9%	25.2%	1.2%
Alcohol (0.07% BAC and higher)	0.3%	1.3%	11.1%	22.7%	63.2%	1.4%
Benzodiazepines	0.6%	4.6%	12.8%	14.9%	30.1%	37.0%
Opioids and Narcotic Analgesics	0.9%	7.8%	18.7%	16.6%	32.2%	23.8%
Cannabis	1.2%	8.9%	23.0%	21.6%	33.0%	12.3%
Cocaine	0.7%	4.3%	13.1%	19.0%	47.2%	15.8%
Ecstasy	0.8%	2.1%	10.1%	18.2%	53.2%	15.6%
Speed	0.5%	2.4%	9.1%	17.1%	54.8%	16.1%
Ice	0.3%	1.1%	4.8%	12.8%	66.3%	14.7%
Other Meth / Amphetamines	0.3%	1.3%	5.6%	15.2%	56.5%	21.0%
Heroin	0.3%	1.0%	5.9%	15.2%	61.6%	16.0%
Opioid Substitutes	0.4%	2.4%	8.5%	14.6%	45.4%	28.6%
Ketamine	0.5%	1.1%	5.8%	11.8%	44.5%	36.1%
LSD / Hallucinogens	0.4%	0.9%	4.6%	12.7%	64.0%	17.3%
GHB	0.4%	0.8%	4.0%	10.6%	48.5%	35.6%

† Sample size: 1,852 (All respondents)

Specific drug user groups were examined more closely, with Tables 4.7B, 4.7C, 4.7D and 4.7E summarising the perceived likelihood of crash involvement associated with use of alcohol and other drugs for non-drug users (including alcohol users), cannabis users, ecstasy users and Ice users.

Of note was that only 41.1% of cannabis users rated the perceived likelihood of a crash as 'likely' or 'very likely' compared to 57.3% of ecstasy users reported the same for driving after ecstasy use; 61% of Ice users reported that a rash was 'likely' or 'very likely' after using Ice and driving.

The findings also demonstrate that the perceived risk of being involved in a crash associated with drug-driving is elevated across all drug user groups, however – and importantly, this risk is rated lower compared to non-drug users. That is, non-drug users rated the crash risk higher.

TABLE 4.7B NON-DRUG USERS PERCEIVED LIKELIHOOD OF CRASH INVOLVEMENT ASSOCIATED WITH THE USE OF ALCOHOL AND OTHER DRUGS, BY DRUG† (INCLUDES ALCOHOL USERS)

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
No alcohol or any other drugs	25.3%	47.9%	15.5%	4.7%	4.8%	1.8%
Alcohol (between 0.02% to 0.049% BAC level)	2.6%	28.3%	42.3%	14.9%	10.3%	1.7%
Alcohol (between 0.05% to 0.069% BAC level)	0.8%	5.6%	27.6%	35.2%	29.0%	1.8%
Alcohol (0.07% BAC and higher)	0.4%	0.8%	9.4%	20.8%	66.8%	1.9%
Benzodiazepines	0.8%	1.9%	8.5%	13.8%	35.7%	39.4%
Opioids and Narcotic Analgesics	0.7%	3.8%	14.0%	15.3%	39.1%	27.2%
Cannabis	0.7%	4.2%	16.9%	20.1%	41.2%	16.9%
Cocaine	0.7%	1.5%	8.2%	18.0%	54.1%	17.5%
Ecstasy	0.9%	0.9%	6.0%	15.8%	59.0%	17.6%
Speed	0.6%	0.9%	4.6%	14.6%	60.1%	19.2%
Ice	0.5%	0.5%	3.3%	10.5%	68.5%	16.7%
Other Meth / Amphetamines	0.5%	0.7%	3.5%	13.7%	59.2%	22.5%
Heroin	0.6%	1.2%	6.4%	13.8%	48.0%	30.1%
Opioid Substitutes	0.8%	0.8%	4.0%	9.9%	44.9%	39.7%
Ketamine	0.5%	0.8%	3.3%	10.9%	63.5%	21.0%
LSD / Hallucinogens	0.6%	0.6%	2.8%	9.5%	49.7%	36.9%
GHB	25.3%	47.9%	15.5%	4.7%	4.8%	1.8%

† Sample size: 1,053 (Non-drug users, includes alcohol users)

TABLE 4.7C CANNABIS USERS PERCEIVED LIKELIHOOD OF CRASH INVOLVEMENT ASSOCIATED WITH THE USE OF ALCOHOL AND OTHER DRUGS, BY DRUG†

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
No alcohol or any other drugs	24.8%	49.6%	17.7%	2.7%	4.2%	1.0%
Alcohol (between 0.02% to 0.049% BAC level)	4.8%	38.7%	39.4%	10.2%	6.3%	0.7%
Alcohol (between 0.05% to 0.069% BAC level)	0.3%	9.8%	40.4%	30.1%	18.7%	0.7%
Alcohol (0.07% BAC and higher)	0.2%	1.9%	14.9%	25.8%	56.4%	0.8%
Benzodiazepines	0.3%	7.6%	17.5%	14.1%	23.3%	37.2%
Opioids and Narcotic Analgesics	1.4%	12.2%	22.8%	18.2%	23.4%	22.1%
Cannabis	2.4%	17.0%	34.6%	20.9%	20.2%	4.9%
Cocaine	0.7%	9.3%	21.4%	19.4%	34.6%	14.6%
Ecstasy	0.8%	4.2%	17.0%	21.9%	42.3%	13.8%
Speed	0.5%	5.4%	15.4%	20.5%	45.3%	12.7%
Ice	0.2%	2.4%	7.0%	16.1%	61.8%	12.6%
Other Meth / Amphetamines	0.2%	2.5%	9.0%	16.5%	51.4%	20.4%
Heroin	0.2%	1.7%	8.5%	17.1%	58.9%	13.6%
Opioid Substitutes	0.2%	3.9%	11.9%	14.9%	39.2%	29.9%
Ketamine	0.3%	1.7%	8.3%	14.1%	42.4%	33.1%
LSD / Hallucinogens	0.3%	1.4%	6.1%	15.6%	63.7%	12.9%
GHB	0.3%	0.8%	6.1%	11.4%	44.3%	37.0%

† Sample size: 589 (Cannabis users).

TABLE 4.7D ECSTASY USERS PERCEIVED LIKELIHOOD OF CRASH INVOLVEMENT ASSOCIATED WITH THE USE OF ALCOHOL AND OTHER DRUGS, BY DRUG†

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
No alcohol or any other drugs	28.1%	44.8%	17.2%	4.7%	4.2%	1.0%
Alcohol (between 0.02% to 0.049% BAC level)	4.7%	44.3%	33.3%	10.4%	6.8%	0.5%
Alcohol (between 0.05% to 0.069% BAC level)	0.5%	14.1%	38.5%	26.6%	19.8%	0.5%
Alcohol (0.07% BAC and higher)	0.5%	3.6%	16.1%	30.2%	49.0%	0.5%
Benzodiazepines	0.0%	10.4%	20.8%	16.7%	17.7%	34.4%
Opioids and Narcotic Analgesics	1.0%	11.5%	28.6%	17.7%	17.2%	24.0%
Cannabis	3.1%	20.8%	42.2%	16.1%	12.0%	5.7%
Cocaine	1.6%	17.2%	33.3%	19.8%	19.8%	8.3%
Ecstasy	1.6%	7.3%	29.2%	25.0%	32.3%	4.7%
Speed	0.5%	10.4%	26.0%	26.0%	28.1%	8.9%
Ice	0.0%	2.6%	15.1%	20.3%	52.1%	9.9%
Other Meth / Amphetamines	0.0%	3.6%	14.6%	17.7%	42.7%	21.4%
Heroin	0.0%	2.6%	7.8%	19.3%	58.3%	12.0%
Opioid Substitutes	0.0%	5.7%	14.6%	16.1%	36.5%	27.1%
Ketamine	0.5%	2.6%	14.1%	17.7%	46.9%	18.2%
LSD / Hallucinogens	0.5%	0.5%	8.9%	16.7%	62.0%	11.5%
GHB	0.0%	0.5%	9.4%	14.1%	42.2%	33.9%

† Sample size: 192 (Ecstasy users).

TABLE 4.7E ICE USERS PERCEIVED LIKELIHOOD OF CRASH INVOLVEMENT ASSOCIATED WITH THE USE OF ALCOHOL AND OTHER DRUGS, BY DRUG†

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
No alcohol or any other drugs	36.6%	46.3%	14.6%	2.4%	0.0%	0.0%
Alcohol (between 0.02% to 0.049% BAC level)	4.9%	56.1%	29.3%	9.8%	0.0%	0.0%
Alcohol (between 0.05% to 0.069% BAC level)	0.0%	14.6%	46.3%	29.3%	9.8%	0.0%
Alcohol (0.07% BAC and higher)	0.0%	4.9%	24.4%	26.8%	43.9%	0.0%
Benzodiazepines	2.4%	14.6%	19.5%	24.4%	12.2%	26.8%
Opioids and Narcotic Analgesics	4.9%	7.3%	39.0%	24.4%	14.6%	9.8%
Cannabis	2.4%	31.7%	43.9%	12.2%	7.3%	2.4%
Cocaine	2.4%	9.8%	48.8%	24.4%	9.8%	4.9%
Ecstasy	2.4%	7.3%	34.1%	19.5%	34.1%	2.4%
Speed	2.4%	12.2%	39.0%	24.4%	19.5%	2.4%
Ice	0.0%	9.8%	26.8%	22.0%	39.0%	2.4%
Other Meth / Amphetamines	0.0%	14.6%	17.1%	24.4%	29.3%	14.6%
Heroin	0.0%	2.4%	9.8%	24.4%	51.2%	12.2%
Opioid Substitutes	0.0%	7.3%	17.1%	22.0%	36.6%	17.1%
Ketamine	0.0%	2.4%	14.6%	22.0%	43.9%	17.1%
LSD / Hallucinogens	0.0%	4.9%	9.8%	17.1%	61.0%	7.3%
GHB	0.0%	2.4%	7.3%	22.0%	46.3%	22.0%

† Sample size: 41 (Ice users).

4.4.4 Perception of detection and adverse consequences of drink-driving and drug-driving

In addition to the knowledge of, and the perceived effects of specific drugs on driving, it was also of interest to obtain an understanding of perceived detection and adverse consequences associated with drug-driving.

4.4.4.1 Detection

Participants were asked about their perceptions of being caught by the police whilst drug-driving. Figure 4.8 and Table 4.8 presents the perceived likelihood of being caught for drug-driving by police, across different drug types.

Across all drug types, drug-driving on Ice was perceived to have the highest likelihood of detection by police with 60.4% of respondents indicating that being caught by police to be 'likely' or 'very likely'. For ecstasy and cannabis, 51.8% and 43.1% respectively reported that driving having consumed these drugs would 'likely' or 'very likely' result in being detected by the police. This was similar to the perceived level of detection of driving with a BAC ≥ 0.07, with 46.7% of respondents stating that it would be 'likely' or 'very likely' that they would be detected by police.

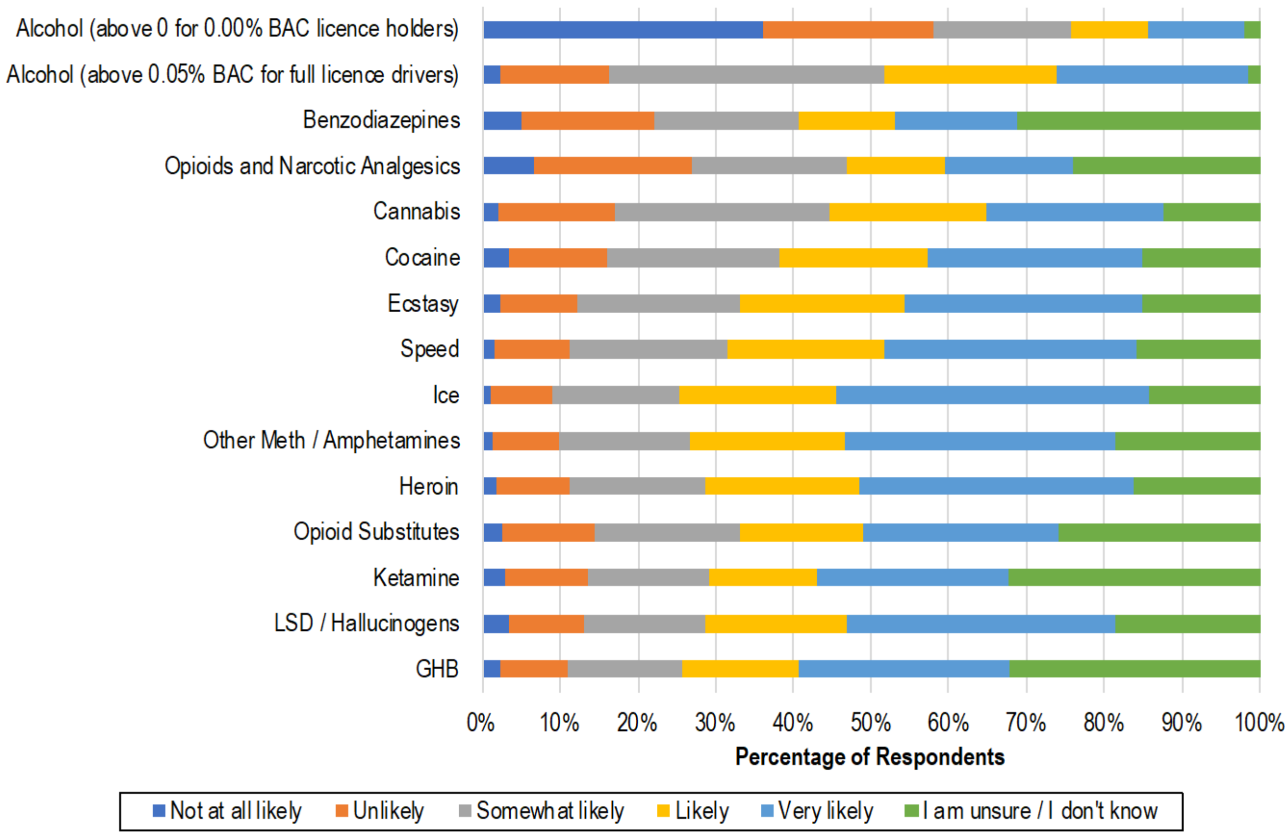

FIGURE 4.8 PERCEIVED LIKELIHOOD OF BEING DETECTED BY POLICE WHILST DRUG-DRIVING, BY DRUG (N = 1,852)

An analysis of the perceived likelihood of detection by police for non-drug users (alcohol users included), cannabis users, ecstasy users and Ice users was conducted (Tables 4.8B, 4.8C, 4.8D and 4.8E). Of those who reported cannabis use, 35.8% rated that it was 'likely' or 'very likely' to be detected by police for drug-driving on cannabis. Of ecstasy users, 52.7% expressed the same likelihood of being caught for drug-driving on ecstasy, whilst 73.2% of Ice users indicated the same relative to drug-driving on Ice.

These findings highlight a marked difference in the perceived level of detection between the user groups, with this being particularly low for users of cannabis.

TABLE 4.8A PERCEIVED LIKELIHOOD OF BEING DETECTED BY POLICE WHILST DRINK-DRIVING AND DRUG-DRIVING, BY DRUG† (POPULATION ESTIMATE)

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	36.2%	21.9%	17.6%	9.8%	12.5%	2.1%
Alcohol (above 0.05% BAC for full licence drivers)	2.2%	14.1%	35.5%	22.0%	24.7%	1.5%
Benzodiazepines	5.0%	17.1%	18.7%	12.3%	15.6%	31.4%
Opioids and Narcotic Analgesics	6.7%	20.2%	19.9%	12.8%	16.2%	24.2%
Cannabis	2.1%	14.9%	27.5%	20.3%	22.8%	12.4%
Cocaine	3.4%	12.6%	22.1%	19.1%	27.7%	15.1%
Ecstasy	2.2%	9.9%	21.0%	21.1%	30.7%	15.2%
Speed	1.7%	9.6%	20.3%	20.2%	32.3%	15.9%
Ice	1.2%	7.7%	16.4%	20.3%	40.1%	14.3%
Other Meth / Amphetamines	1.4%	8.5%	16.7%	20.1%	34.7%	18.6%
Heroin	1.9%	9.4%	17.5%	19.7%	35.3%	16.2%
Opioid Substitutes	2.5%	11.9%	18.7%	15.9%	24.9%	26.0%
Ketamine	2.9%	10.6%	15.7%	13.9%	24.6%	32.3%
LSD / Hallucinogens	3.4%	9.6%	15.8%	18.1%	34.6%	18.6%
GHB	2.4%	8.7%	14.7%	14.8%	27.2%	32.2%

† Sample size: 1,852 (All respondents)

TABLE 4.8B NON-DRUG USERS PERCEIVED LIKELIHOOD OF BEING DETECTED BY POLICE WHILST DRINK-DRIVING AND DRUG-DRIVING, BY DRUG† (INCLUDES ALCOHOL USERS)

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	33.7%	22.4%	17.9%	11.3%	12.4%	2.2%
Alcohol (above 0.05% BAC for full licence drivers)	2.1%	14.2%	34.0%	21.5%	26.4%	1.9%
Benzodiazepines	2.3%	12.8%	17.6%	13.6%	19.1%	34.7%
Opioids and Narcotic Analgesics	3.5%	14.9%	19.2%	13.6%	20.2%	28.6%
Cannabis	1.3%	10.5%	23.8%	20.1%	27.3%	16.9%
Cocaine	2.0%	8.5%	20.7%	19.5%	31.8%	17.5%
Ecstasy	1.4%	8.1%	18.8%	19.5%	34.3%	17.9%
Speed	1.1%	7.5%	18.6%	18.0%	35.5%	19.2%
Ice	0.8%	6.0%	15.8%	19.2%	41.1%	17.2%
Other Meth / Amphetamines	0.9%	6.8%	15.5%	18.6%	36.6%	21.6%
Heroin	1.2%	7.2%	16.9%	18.5%	37.7%	18.4%
Opioid Substitutes	1.7%	9.4%	17.7%	14.7%	27.8%	28.7%
Ketamine	1.8%	8.7%	14.3%	13.0%	25.5%	36.6%
LSD / Hallucinogens	1.9%	7.5%	15.2%	16.8%	35.9%	22.7%
GHB	1.3%	7.3%	14.4%	13.8%	28.8%	34.4%

† Sample size: 1,053 (Non-drug users, includes alcohol users)

TABLE 4.8C CANNABIS USERS PERCEIVED LIKELIHOOD OF BEING DETECTED BY POLICE WHILST DRINK-DRIVING AND DRUG-DRIVING, BY DRUG†

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	39.7%	18.8%	19.2%	8.3%	11.9%	2.0%
Alcohol (above 0.05% BAC for full licence drivers)	2.7%	13.8%	37.9%	22.9%	21.7%	1.0%
Benzodiazepines	7.8%	20.7%	20.5%	10.2%	10.7%	30.1%
Opioids and Narcotic Analgesics	10.5%	25.5%	21.1%	12.1%	10.4%	20.5%
Cannabis	2.9%	20.0%	35.1%	20.9%	14.9%	6.1%
Cocaine	5.1%	17.7%	25.8%	17.5%	20.7%	13.2%
Ecstasy	2.7%	11.2%	24.8%	23.6%	24.3%	13.4%
Speed	1.7%	11.4%	23.4%	23.6%	26.7%	13.2%
Ice	1.2%	9.2%	17.5%	22.6%	37.9%	11.7%
Other Meth / Amphetamines	1.4%	10.0%	18.3%	22.1%	31.2%	17.0%
Heroin	2.5%	11.4%	19.0%	20.7%	31.6%	14.8%
Opioid Substitutes	3.6%	14.6%	20.0%	16.5%	20.2%	25.1%
Ketamine	4.4%	11.9%	17.7%	14.6%	22.8%	28.7%
LSD / Hallucinogens	5.9%	11.7%	16.8%	18.8%	32.4%	14.3%
GHB	4.1%	9.2%	15.6%	15.4%	23.9%	31.7%

† Sample size: 589 (Cannabis users)

TABLE 4.8D ECSTASY USERS PERCEIVED LIKELIHOOD OF BEING DETECTED BY POLICE WHILST DRINK-DRIVING AND DRUG-DRIVING, BY DRUG†

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	41.1%	16.7%	20.8%	9.4%	10.9%	1.0%
Alcohol (above 0.05% BAC for full licence drivers)	2.1%	15.6%	37.5%	22.4%	22.4%	0.0%
Benzodiazepines	10.4%	24.5%	21.9%	12.0%	6.3%	25.0%
Opioids and Narcotic Analgesics	12.5%	27.6%	22.4%	11.5%	7.3%	18.8%
Cannabis	3.1%	22.4%	37.5%	21.9%	11.5%	3.6%
Cocaine	7.8%	23.4%	31.8%	16.1%	14.6%	6.3%
Ecstasy	3.1%	14.1%	25.5%	31.3%	21.4%	4.7%
Speed	2.1%	12.0%	25.5%	31.3%	22.9%	6.3%
Ice	1.0%	10.4%	16.1%	28.1%	38.5%	5.7%
Other Meth / Amphetamines	2.6%	10.4%	17.7%	26.6%	30.2%	12.5%
Heroin	2.6%	15.6%	18.2%	22.9%	31.3%	9.4%
Opioid Substitutes	5.2%	17.7%	17.7%	21.4%	17.7%	20.3%
Ketamine	6.3%	19.8%	18.8%	16.1%	22.9%	16.1%
LSD / Hallucinogens	8.9%	16.1%	16.1%	20.3%	29.7%	8.9%
GHB	4.7%	14.1%	15.1%	17.7%	22.4%	26.0%

† Sample size: 192 (Ecstasy users)

TABLE 4.8E ICE USERS PERCEIVED LIKELIHOOD OF BEING DETECTED BY POLICE WHILST DRINK-DRIVING AND DRUG-DRIVING, BY DRUG†

Drug Type	Not at all likely	Unlikely	Somewhat likely	Likely	Very likely	I am unsure / I don't know
Alcohol (above 0 for 0.00% BAC licence holders)	41.5%	14.6%	29.3%	7.3%	7.3%	0.0%
Alcohol (above 0.05% BAC for full licence drivers)	0.0%	14.6%	48.8%	19.5%	14.6%	2.4%
Benzodiazepines	12.2%	22.0%	24.4%	17.1%	4.9%	19.5%
Opioids and Narcotic Analgesics	14.6%	39.0%	17.1%	14.6%	7.3%	7.3%
Cannabis	4.9%	26.8%	34.1%	19.5%	12.2%	2.4%
Cocaine	9.8%	24.4%	39.0%	7.3%	19.5%	0.0%
Ecstasy	0.0%	14.6%	31.7%	34.1%	19.5%	0.0%
Speed	0.0%	14.6%	31.7%	39.0%	14.6%	0.0%
Ice	0.0%	17.1%	9.8%	43.9%	29.3%	0.0%
Other Meth / Amphetamines	0.0%	17.1%	14.6%	39.0%	17.1%	12.2%
Heroin	2.4%	14.6%	17.1%	34.1%	24.4%	7.3%
Opioid Substitutes	2.4%	24.4%	17.1%	24.4%	17.1%	14.6%
Ketamine	4.9%	19.5%	17.1%	17.1%	26.8%	14.6%
LSD / Hallucinogens	4.9%	17.1%	24.4%	19.5%	31.7%	2.4%
GHB	4.9%	14.6%	14.6%	22.0%	26.8%	17.1%

† Sample size: 41 (Ice users)

4.4.4.2 Adverse consequences of drink-driving and drug-driving (population estimates)

Participants were asked to rate their level of concern regarding specific consequences of drink-driving and drug-driving (Table 4.9, Figures 4.9 and 4.10).

Across the total sample, the highest level of concern (defined as those who rated 'extremely concerned') associated with drink-driving was the prospect of injuring someone else in a crash (59.4%), followed by having a crash (49.9%), loss of licence (48.4%), and being injured in a crash (48.2%). Fewer respondents rated getting stopped by police (27.4%) and receiving a fine for drink-driving (24.8%) as warranting a rating of 'extremely concerned'.

The same pattern is evident in relation with drug-driving with 65.6% of respondents being 'extremely concerned' by the consequence of injuring someone else, followed by having a crash (59.5%), being injured in a crash (59.0%) and losing one's driver licence (56.3%).

The addition of the proportion of 'very concerned' ratings does not change the rank order within the drink-driving and drug-driving behaviour categories.

However, looking across both behaviours, and using the combined 'very' and 'extremely' concerned rating, injuring someone else in a crash due to drug-driving (82.1%) was rated as the primary consequence, followed by having a drug-driving related crash (79.3%) and loss of licence (79.3%), and being injured in a drug-driving crash (78.3%); injuring someone else as a consequence of drink-driving (77.9%) ranked fifth in this manner. Of note however was the high proportion of respondents giving a rating of 'very' or 'extremely' concerned across each of the potential adverse consequences.

Of note are the respondents stating they are 'not at all', 'slightly' or a best 'somewhat' concerned by these potential adverse consequences, particularly being stopped by the Police and getting a fine.

To further explore these findings, the perception of among specific user groups is examined in the sub-sections below. To summarise, across the groups the same pattern holds, although the proportion of respondents giving ratings of 'extremely concerned' is higher among non-drug users than was the case in the drug-user groups.

TABLE 4.9 LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING† (POPULATION ESTIMATE)

CONSEQUENCE	NOT AT ALL	SLIGHTLY CONCERNED	SOMEWHAT CONCERNED	VERY CONCERNED	EXTREMELY CONCERNED
DRINK-DRIVING					
Getting stopped by Police	6.0%	15.3%	19.3%	32.0%	27.4%
Getting a Fine	7.4%	14.5%	22.3%	31.0%	24.8%
Loss of licence	7.5%	6.3%	9.8%	28.0%	48.4%
Having a crash	6.2%	9.4%	12.1%	22.4%	49.9%
Being injured in a crash	6.3%	10.6%	13.3%	21.6%	48.2%
Injure someone else in a crash	5.8%	6.8%	9.4%	18.5%	59.4%
DRUG-DRIVING					
Getting stopped by Police	6.3%	8.9%	15.3%	23.9%	45.6%
Getting a Fine	6.6%	9.9%	16.8%	25.5%	41.1%
Loss of licence	5.6%	4.9%	10.2%	23.0%	56.3%
Having a crash	5.6%	5.4%	9.7%	19.8%	59.5%
Being injured in a crash	5.9%	5.6%	10.3%	19.3%	59.0%
Injure someone else in a crash	5.6%	4.2%	8.1%	16.5%	65.6%

† Sample size: 1,852 (All respondents)

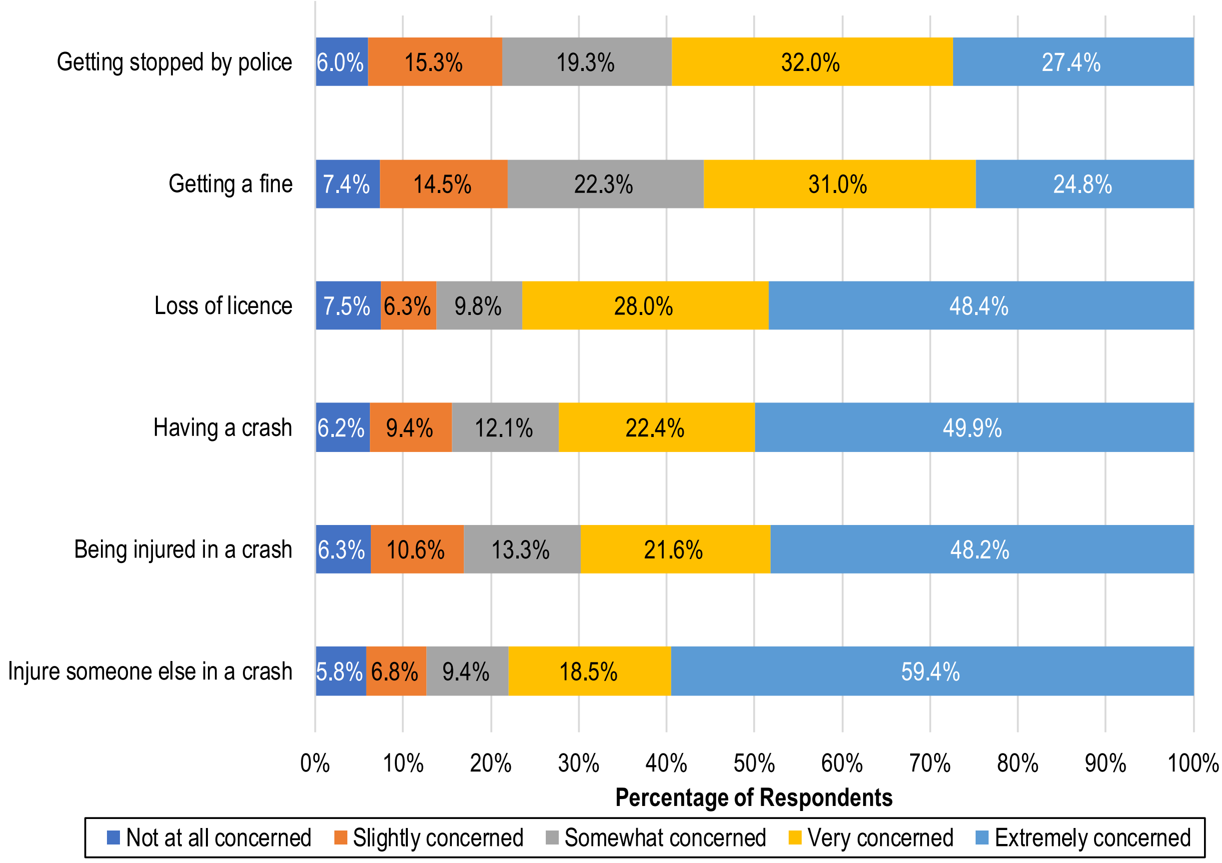

FIGURE 4.9 LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING (N = 1,852)

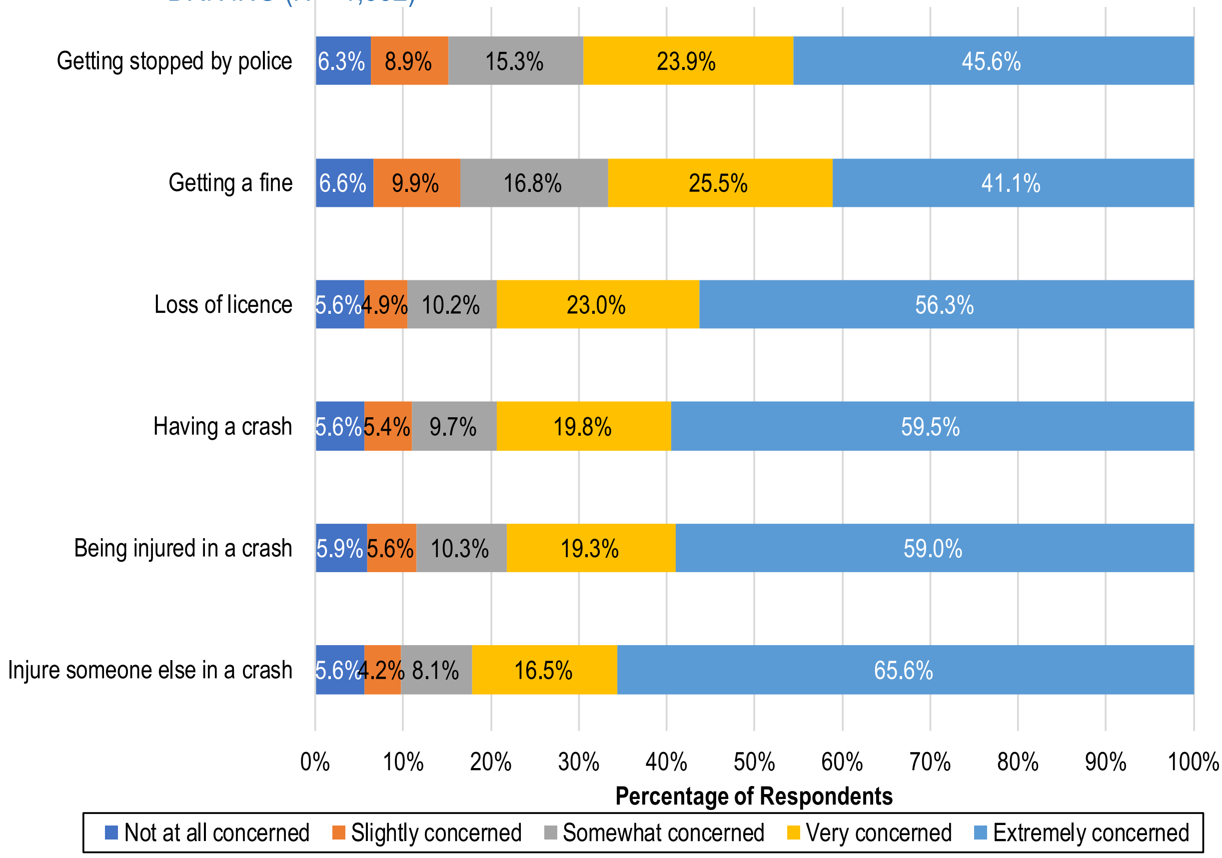

FIGURE 4.10 LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRUG-DRIVING (N = 1,852)

4.4.4.3 Non-drug users' level of concern regarding adverse consequences of drink-driving and drug-driving

Table 4.10, Figures 4.11 and 4.12 detail the level of concern regarding adverse consequences for drink-driving and drug-driving across the non-drug user group (includes alcohol uses).

For both drink-driving and for drug-driving, injuring someone else in a crash attracted the highest proportion of respondents giving a rating of being 'extremely concerned', followed by having a crash, and being injured in a crash.

These results demonstrate that concerns regarding adverse consequences for both drink-driving and drug-driving were the same for the non-drug user group, with the primary focus being on injury-related consequences for others and then for themselves.

TABLE 4.10 NON-DRUG USERS LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING† (INCLUDES ALCOHOL USERS)

Consequence	Not at all	Slightly concerned	Somewhat concerned	Very concerned	Extremely concerned
Drink-driving					
Getting stopped by Police	7.2%	14.2%	18.0%	32.5%	28.1%
Getting a Fine	8.1%	12.6%	20.3%	31.8%	27.2%
Loss of licence	8.4%	5.5%	9.5%	27.2%	49.5%
Having a crash	6.7%	9.0%	11.0%	20.8%	52.4%
Being injured in a crash	6.6%	9.7%	12.0%	20.5%	51.3%
Injure someone else in a crash	6.6%	6.1%	8.6%	17.7%	61.1%
Drug-driving					
Getting stopped by Police	6.6%	6.7%	11.6%	23.2%	51.9%
Getting a Fine	6.9%	6.1%	13.4%	25.4%	48.2%
Loss of licence	6.2%	3.7%	8.3%	21.4%	60.5%
Having a crash	5.5%	3.4%	8.2%	17.9%	65.0%
Being injured in a crash	5.6%	3.4%	8.7%	17.6%	64.7%
Injure someone else in a crash	5.7%	2.6%	6.9%	15.8%	69.0%

† Sample size: 1,053 (Non-drug users, includes alcohol users)

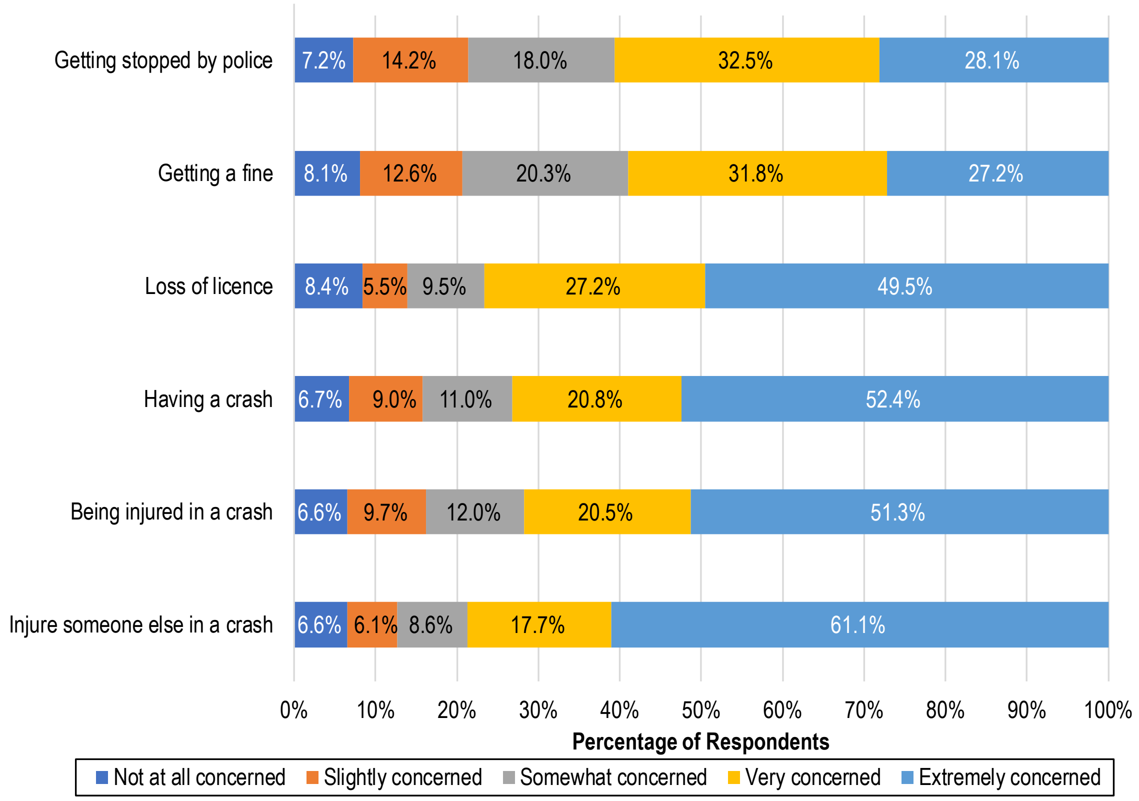

FIGURE 4.11 NON-DRUG USERS LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING (N = 1,053; INCLUDES ALCOHOL USERS)

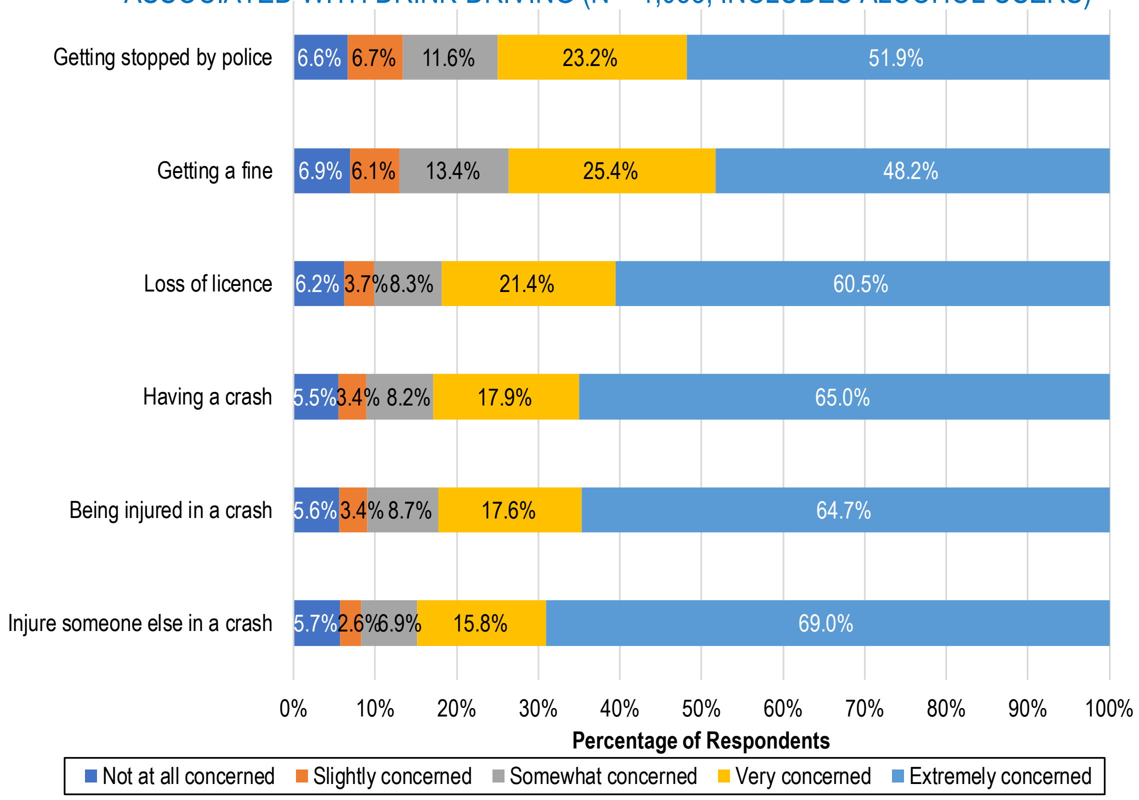

FIGURE 4.12 NON-DRUG USERS LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRUG-DRIVING (N = 1,053; INCLUDES ALCOHOL USERS)

4.4.4.3 Cannabis users reported level of concern regarding adverse consequences of drink-driving and drug-driving

Table 4.11, Figures 4.13 and 4.14 present data relating to the perceived level of concern of the potential adverse consequences of drink-driving and drug-driving held by cannabis users.

Injuring someone else in a crash and loss of licence were consequences that attracted the highest level of concern. This was followed by having a crash and losing one's drivers' licence.

TABLE 4.11 CANNABIS USERS LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING†

Consequence	Not at all	Slightly concerned	Somewhat concerned	Very concerned	Extremely concerned
Drink-driving					
Getting stopped by Police	3.9%	16.3%	21.4%	31.4%	27.0%
Getting a Fine	5.9%	17.3%	25.8%	29.0%	21.9%
Loss of licence	5.3%	7.1%	10.2%	28.7%	48.7%
Having a crash	4.9%	9.8%	14.6%	24.8%	45.8%
Being injured in a crash	5.9%	12.1%	16.0%	23.4%	42.6%
Injure someone else in a crash	4.6%	7.6%	10.0%	20.4%	57.4%
Drug-driving					
Getting stopped by Police	4.2%	11.0%	21.4%	26.5%	36.8%
Getting a Fine	4.9%	15.3%	22.6%	26.8%	30.4%
Loss of licence	3.6%	6.6%	12.6%	26.1%	51.1%
Having a crash	5.1%	8.1%	12.4%	22.8%	51.6%
Being injured in a crash	6.3%	8.7%	12.9%	22.6%	49.6%
Injure someone else in a crash	5.3%	6.3%	9.7%	18.3%	60.4%

† Sample size: 592 (Cannabis users)

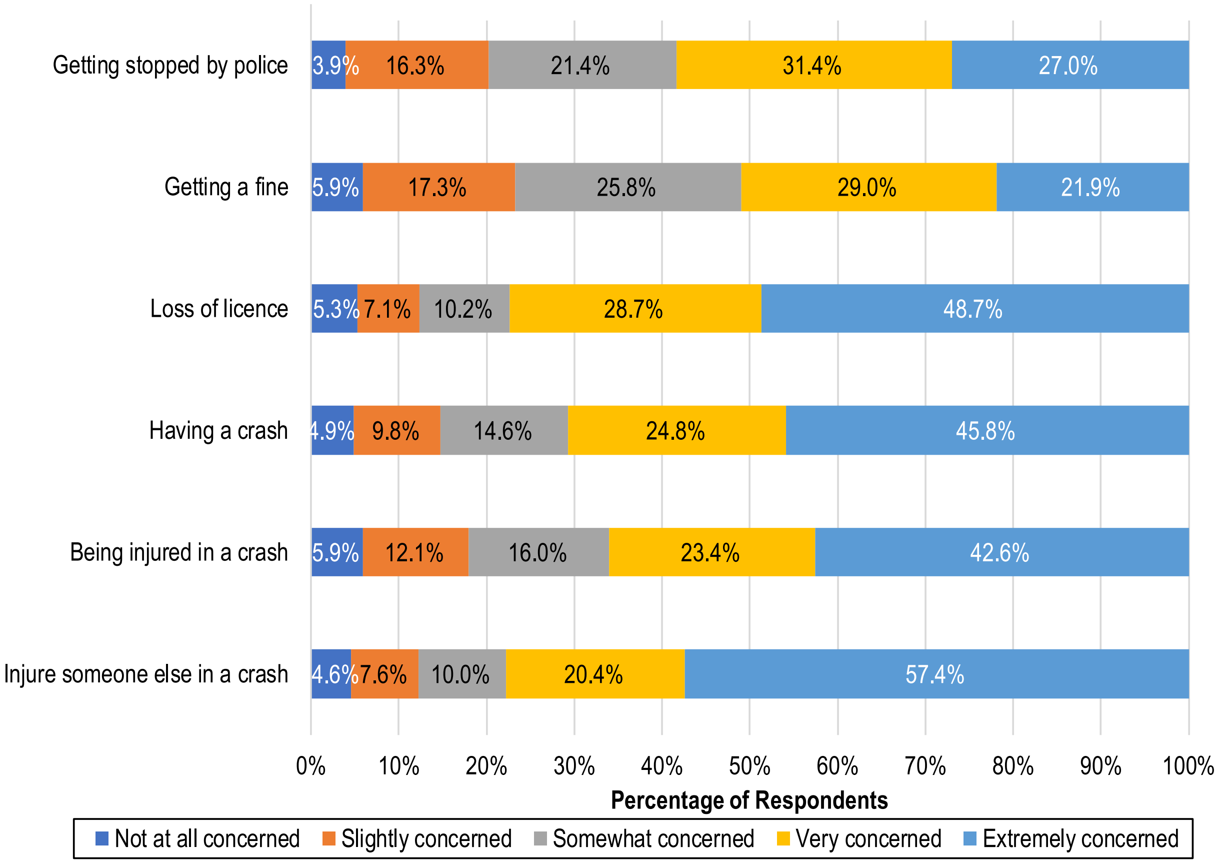

FIGURE 4.13 CANNABIS USERS SELF-REPORTED LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING (N = 592)

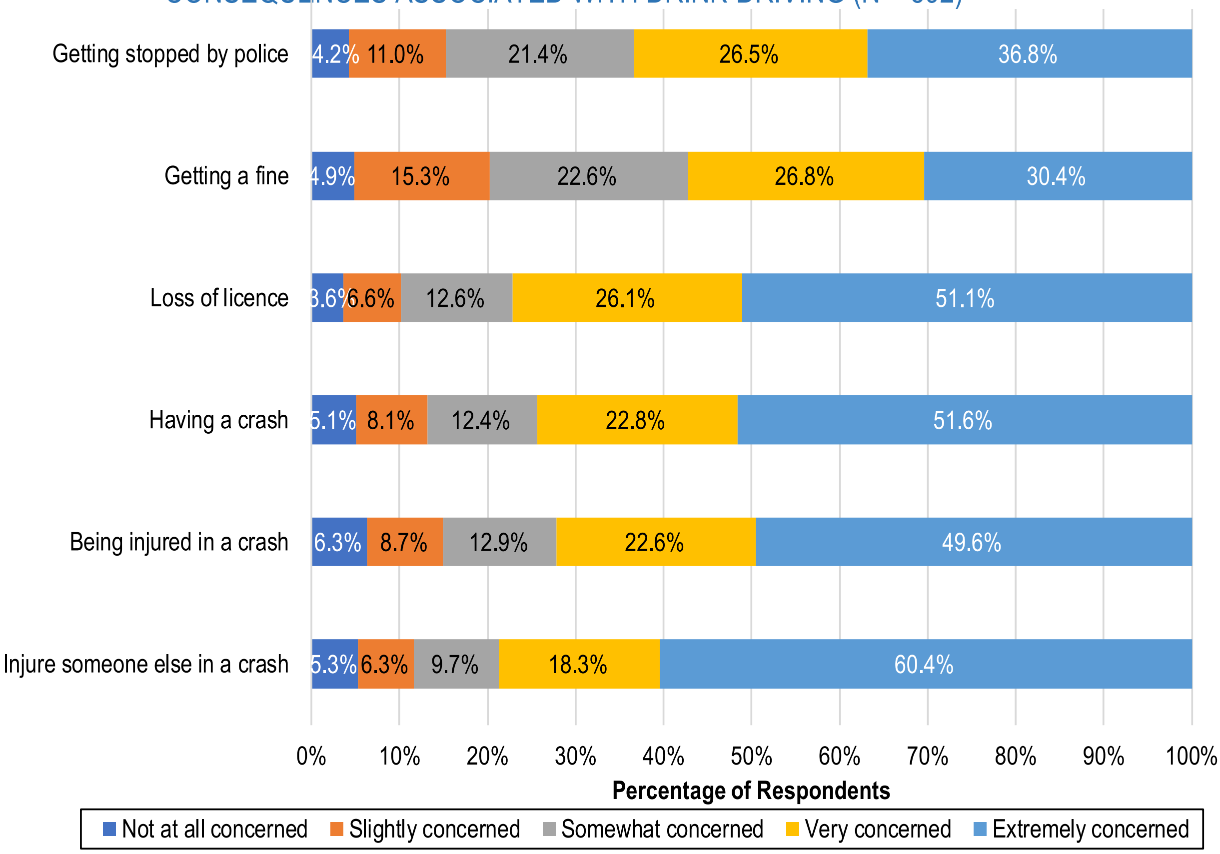

FIGURE 4.14 CANNABIS USERS SELF-REPORTED LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRUG-DRIVING (N = 592)

4.4.4.4 Ecstasy users reported level of concern regarding adverse consequences of drink-driving and drug-driving

Table 4.12, Figures 4.15 and 4.16 present the level of concern for adverse consequences of drink-driving and drug-driving among ecstasy users.

With respect to drink-driving, injuring someone else in a crash and the loss of one's own drivers licence attracted the highest proportion of respondents stating that they were 'extremely concerned' by these outcomes. Similarly, for drug-driving, injuring someone else in a crash was also seen as the most concerning consequence, followed by having a crash, loss of licence and being injured in a crash.

TABLE 4.12 ECSTASY USERS LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING†

Consequence	Not at all	Slightly concerned	Somewhat concerned	Very concerned	Extremely concerned
Drink-driving					
Getting stopped by Police	2.6%	12.5%	17.7%	34.9%	32.3%
Getting a Fine	5.7%	20.3%	26.0%	26.6%	21.4%
Loss of licence	2.6%	5.2%	13.0%	30.7%	48.4%
Having a crash	3.1%	8.9%	13.0%	28.1%	46.9%
Being injured in a crash	5.2%	9.4%	16.7%	26.0%	42.7%
Injure someone else in a crash	4.7%	4.7%	9.4%	20.8%	60.4%
Drug-driving					
Getting stopped by Police	2.6%	7.8%	21.4%	28.1%	40.1%
Getting a Fine	4.2%	14.6%	23.4%	30.2%	27.6%
Loss of licence	1.0%	6.3%	12.5%	29.2%	51.0%
Having a crash	3.6%	9.4%	9.4%	22.4%	55.2%
Being injured in a crash	4.7%	9.4%	12.0%	22.9%	51.0%
Injure someone else in a crash	3.6%	7.8%	6.8%	18.2%	63.5%

† Sample size: 192 (Ecstasy users)

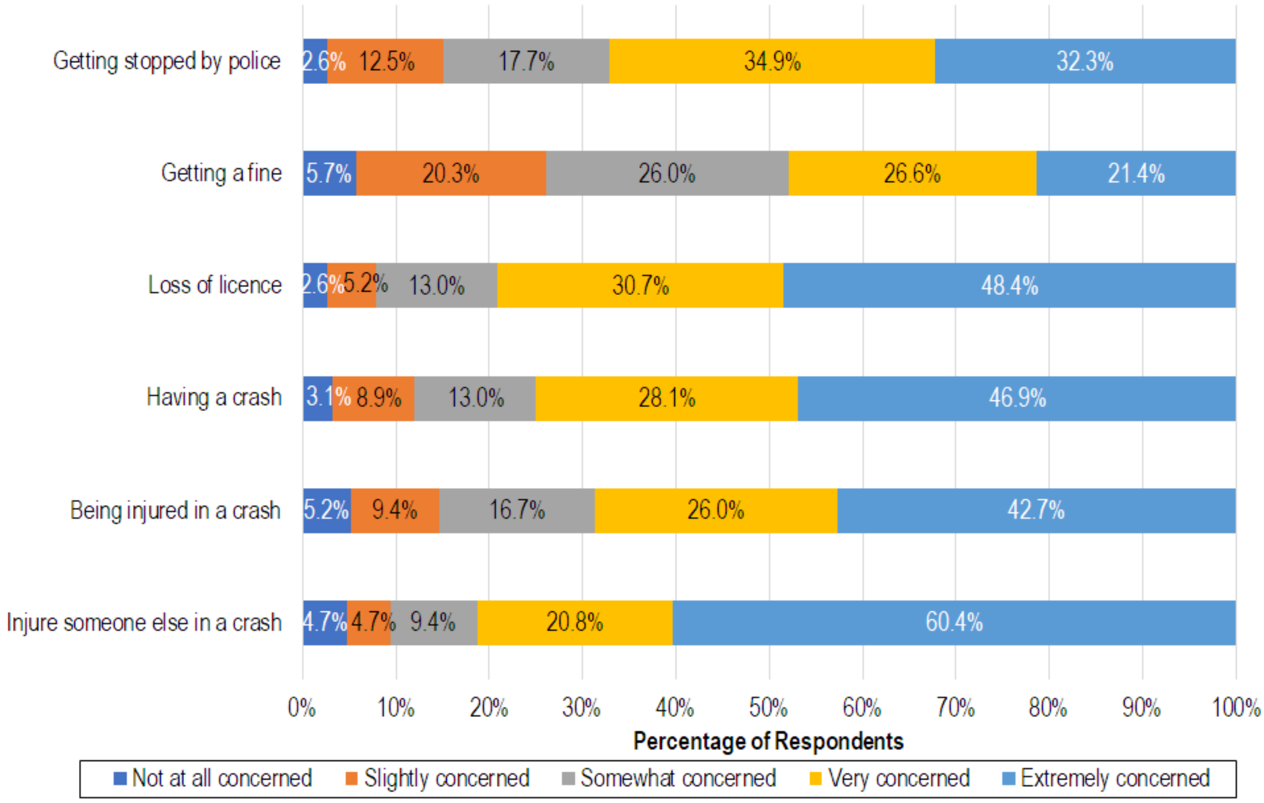

FIGURE 4.15 ECSTASY USERS SELF-REPORTED LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING (N = 192)

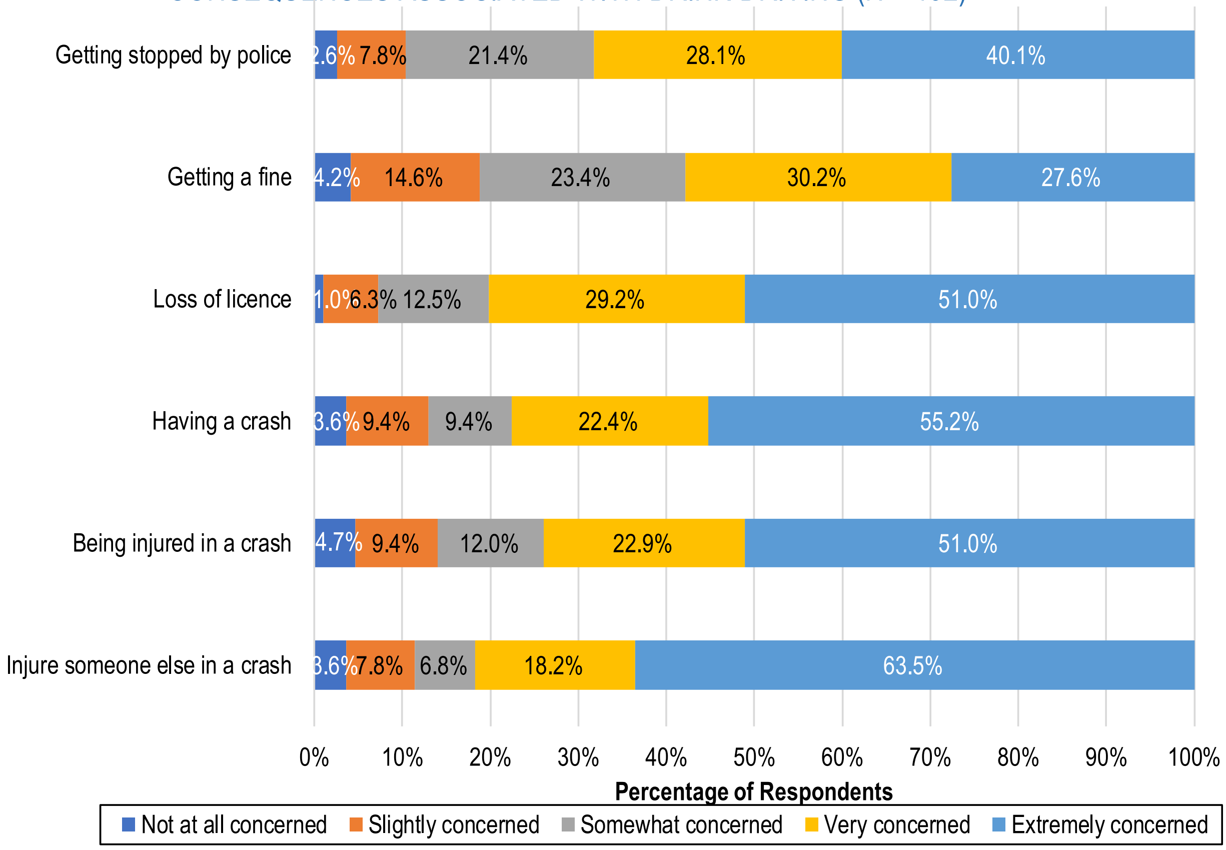

FIGURE 4.16 ECSTASY USERS SELF-REPORTED LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRUG-DRIVING (N = 192)

4.4.4.5 Ice users reported level of concern regarding adverse consequences of drink-driving and drug-driving

Lastly, the level of concern held by users of Ice regarding the potential adverse consequences of drink-driving and drug-driving were examined (Table 4.13, Figure 4.17, Figure 4.18). Injuring someone else in a crash, loss of licence and having a crash were all prominent.

TABLE 4.13 ICE USERS LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING AND DRUG-DRIVING†

Consequence	Not at all	Slightly concerned	Somewhat concerned	Very concerned	Extremely concerned
Drink-driving					
Getting stopped by Police	4.9%	17.1%	24.4%	29.3%	24.4%
Getting a Fine	7.3%	19.5%	34.1%	24.4%	14.6%
Loss of licence	2.4%	2.4%	14.6%	43.9%	36.6%
Having a crash	4.9%	4.9%	14.6%	41.5%	34.1%
Being injured in a crash	4.9%	9.8%	19.5%	31.7%	34.1%
Injure someone else in a crash	4.9%	4.9%	9.8%	29.3%	51.2%
Drug-driving					
Getting stopped by Police	4.9%	9.8%	29.3%	29.3%	26.8%
Getting a Fine	4.9%	19.5%	24.4%	34.1%	17.1%
Loss of licence	2.4%	7.3%	14.6%	36.6%	39.0%
Having a crash	4.9%	9.8%	4.9%	41.5%	39.0%
Being injured in a crash	2.4%	12.2%	17.1%	34.1%	34.1%
Injure someone else in a crash	4.9%	7.3%	4.9%	29.3%	53.7%

† Sample size: 41 (Ice users)

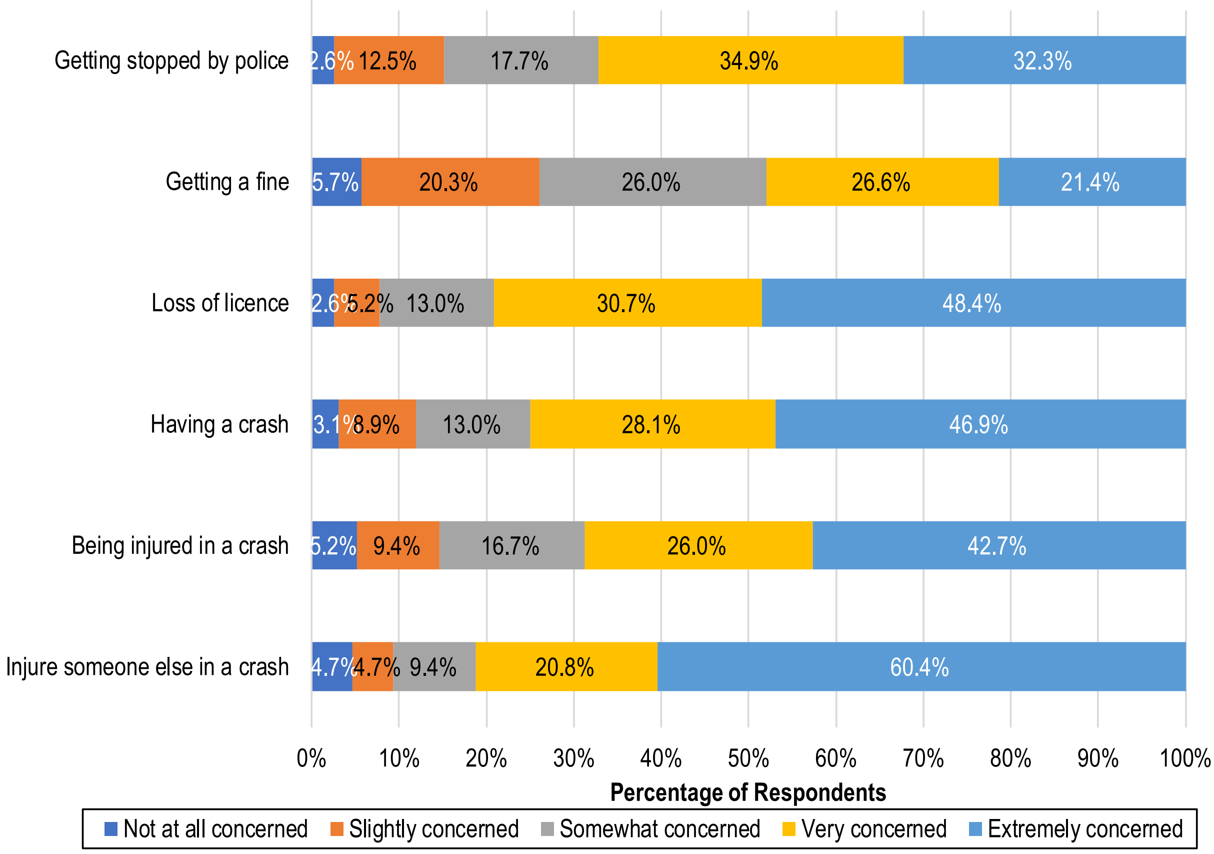

FIGURE 4.17 ICE USERS SELF-REPORTED LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRINK-DRIVING (N = 41)

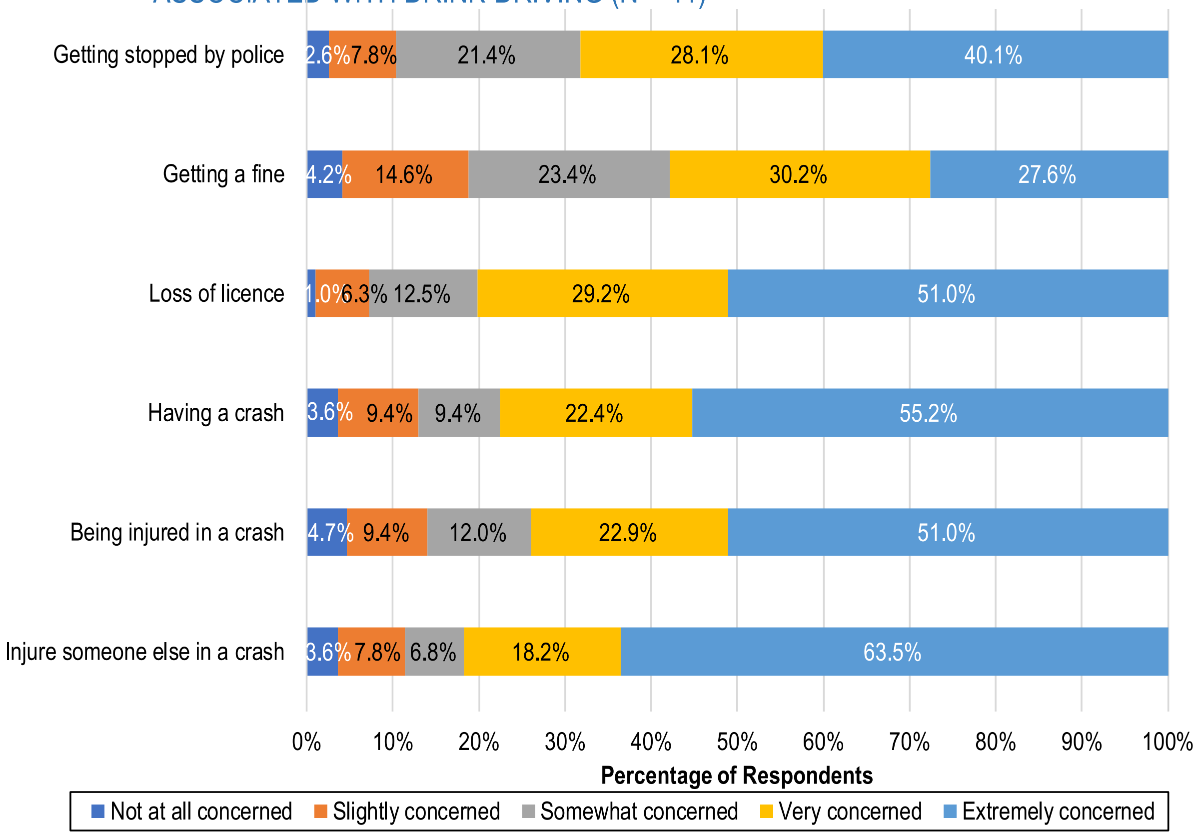

FIGURE 4.18 ICE USERS SELF-REPORTED LEVEL OF CONCERN FOR ADVERSE CONSEQUENCES ASSOCIATED WITH DRUG-DRIVING (N = 41)

4.5 ATTITUDES TOWARDS COUNTERMEASURES, SANCTIONS AND INTERVENTIONS

A key part of this *Research Program* was the assessment of attitudes towards drug-driving countermeasures. With the current Victorian roadside drug-testing program currently screening for cannabis, ecstasy and Ice, emphasis was placed on these drugs. Of interest was the perception of how effective a range of countermeasures were perceived in changing one's own behaviour and that of others. This was assessed across the three primary drug user groups of interest.

4.5.1 Cannabis user's perspective on drug-driving following exposure to countermeasures

Cannabis users (n = 589) were asked *how likely they would drive under the influence of cannabis* if they were directly exposed to a range of countermeasures. Drivers were asked to respond, 'not at all likely', 'unlikely', 'neither', or that they would be 'likely' or 'very likely' to drive under the influence of cannabis irrespective of exposure to the countermeasure in question. These values can be interpreted as respondents rating the level of effectiveness of each countermeasure in preventing their own future drug-driving

These ratings are presented in Figure 4.19 and Table 4.14 and are specific to cannabis-users who stated that they had engaged in drug-driving behaviour. The majority (>80%) of cannabis users that had previously driven after cannabis use stated that they would be 'not at all likely' or they would be 'unlikely' to drive under the influence of cannabis given direct exposure to each of the countermeasures. Licence-related sanctions (88.3%), vehicle impoundment (88.5%), participation in alcohol / drug rehabilitation program (87.1%) and a being given a Community Corrections Order (CCO) (86.7%) had the highest proportion of respondents stating that they would be 'not at all likely' or 'unlikely' to drug-drive following direct exposure to these measures. Seeing or hearing information attracted the lowest percentage (77.1%) of the countermeasures rated.

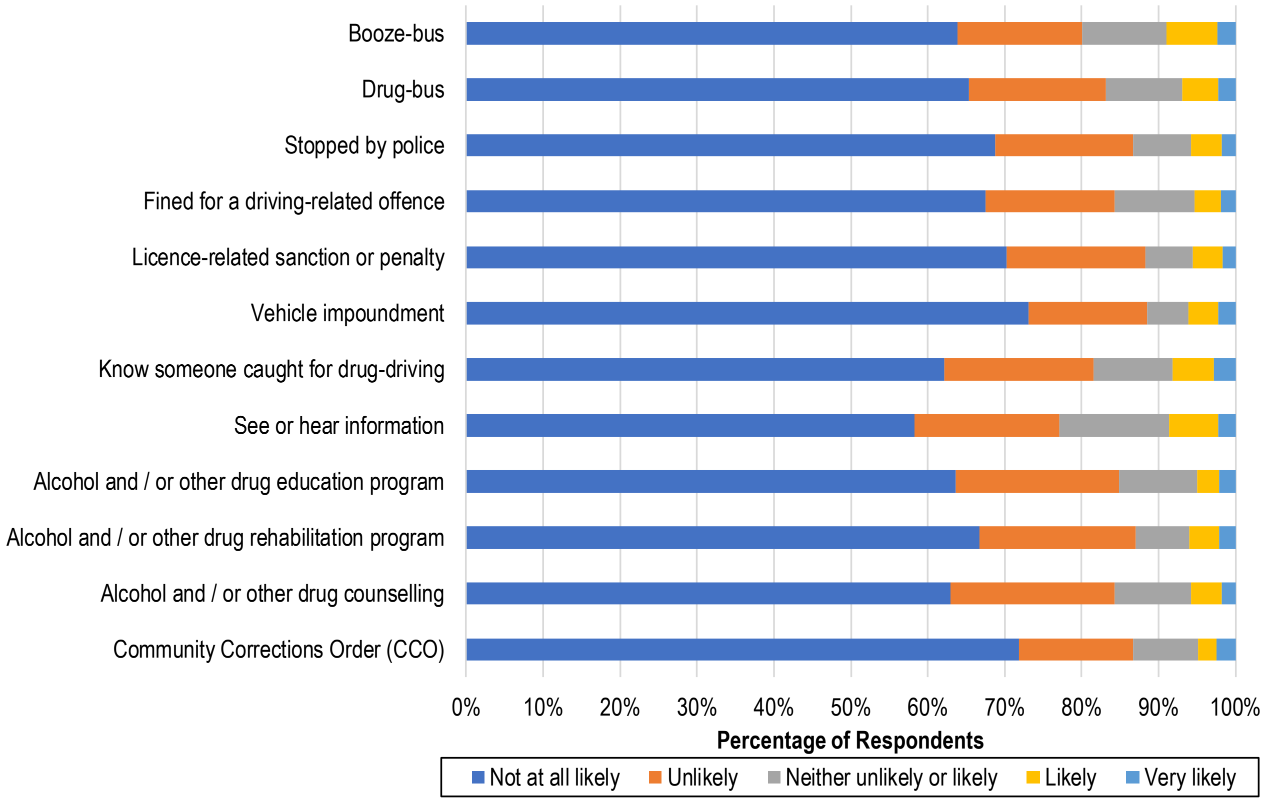

FIGURE 4.19 CANNABIS USERS SELF-REPORTED LIKELIHOOD OF FUTURE DRUG-DRIVING GIVEN EXPOSURE TO SPECIFIC COUNTERMEASURES

A small proportion of users were resistant to each countermeasure, stating they would remain 'likely' or 'very likely' to drive despite direct experience of the specific countermeasures (average of 4.3% and 2.1% of respondents across all measures). In addition, a small group were 'non-committal', signalling they were neither unlikely or likely to engage in drug-driving (average of 9.2% of respondents across all countermeasures).

TABLE 4.14 CANNABIS USERS SELF-REPORTED LIKELIHOOD OF FUTURE DRUG-DRIVING GIVEN EXPOSURE TO SPECIFIC COUNTERMEASURES

Countermeasure	Not at all likely	Unlikely	Neither	Likely	Very likely
Booze-bus	63.9%	16.2%	10.9%	6.7%	2.4%
Drug-bus	65.4%	17.8%	9.9%	4.6%	2.3%
Stopped by police	68.8%	18.0%	7.6%	3.9%	1.8%
Fined for a driving-related offence	67.5%	16.8%	10.4%	3.5%	1.9%
Licence-related sanction or penalty	70.3%	18.1%	6.1%	3.9%	1.7%
Vehicle impoundment	73.1%	15.4%	5.3%	3.9%	2.2%
Know someone caught for drug-driving	62.2%	19.3%	10.4%	5.3%	2.8%
See or hear information	58.3%	18.9%	14.3%	6.3%	2.3%
Alcohol and/or other drug education program	63.6%	21.3%	10.1%	3.0%	2.1%
Alcohol and/or other drug rehabilitation program	66.7%	20.4%	6.9%	3.9%	2.1%
Alcohol and/or other drug counselling	63.0%	21.4%	9.9%	3.9%	1.8%
Community Corrections Order (CCO)	71.9%	14.8%	8.5%	2.4%	2.4%

† Sample size: 589 (Cannabis users)

Cannabis users were also asked how effective each countermeasure would be in preventing others from engaging in drug-driving behaviour (Figure 4.20, Table 4.15). Of the listed countermeasures, vehicle impoundment was rated as being 'extremely effective' by 41.4% of respondents, this being the highest single effectiveness rating. This was followed by licence-related sanctions (25.5%) and participation in an alcohol and/or other drug rehabilitation program (22.2%). Further, vehicle impoundment (74.8%), participation in an alcohol and/or other drug rehabilitation program (64.1%) and being stopped by police (62.2%) were rated as being 'very' or 'extremely effective' in reducing drug-driving.

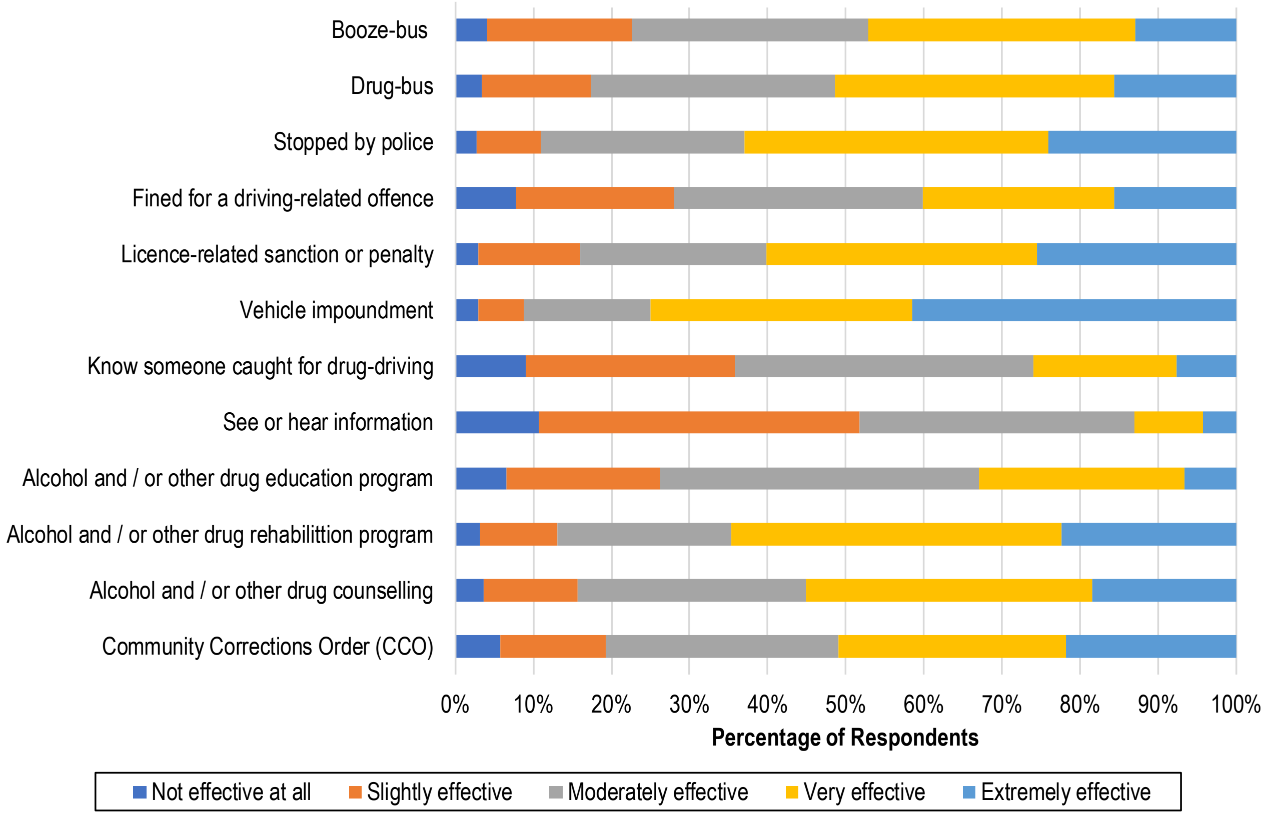

FIGURE 4.20 CANNABIS USERS PERCEIVED EFFECTIVENESS OF SPECIFIC COUNTERMEASURES PREVENTING OTHERS FROM DRUG-DRIVING

MONASH University

TABLE 4.15 CANNABIS USERS PERCEIVED EFFECTIVENESS OF SPECIFIC COUNTERMEASURES PREVENTING OTHERS FROM DRUG-DRIVING†

Countermeasure	Not effective at all	Slightly effective	Moderately effective	Very effective	Extremely effective	Missing
Booze-bus	4.1%	18.5%	30.2%	34.1%	12.9%	0.2%
Drug-bus	3.4%	13.9%	31.2%	35.7%	15.6%	0.2%
Stopped by police	2.7%	8.1%	25.8%	38.4%	23.8%	1.2%
Fined for a driving-related offence	7.8%	20.2%	31.7%	24.4%	15.6%	0.2%
Licence-related sanction or penalty	2.9%	13.1%	23.8%	34.6%	25.5%	0.2%
Vehicle impoundment	2.9%	5.9%	16.1%	33.4%	41.4%	0.2%
Know someone caught for drug-driving	9.0%	26.8%	38.2%	18.3%	7.6%	0.0%
See or hear information	10.7%	40.9%	35.1%	8.8%	4.2%	0.2%
Alcohol and/or other drug education program	6.5%	19.7%	40.9%	26.3%	6.6%	0.0%
Alcohol and/or other drug rehabilitation program	3.2%	9.8%	22.1%	41.9%	22.2%	0.7%
Alcohol and/or other drug counselling	3.6%	12.1%	29.2%	36.7%	18.5%	0.0%
Community Corrections Order (CCO)	5.8%	13.4%	29.7%	29.0%	21.7%	0.3%

† Sample size: 589 (Cannabis users)

4.5.2 Ecstasy user's perspective on drug-driving following exposure to countermeasures

Ecstasy users were asked about their future likelihood of drug-driving, given exposure to, or experience of, each countermeasure (Figure 4.21, Table 4.16). The percentages shown in Figure 4.21 and Table 4.16 are relevant only to those ecstasy-users that stated that they had driven after ecstasy use. This can be interpreted as respondents rating the level of effectiveness of each countermeasure in preventing their own future drug-driving. The majority of ecstasy users stated they would be 'not at all likely' or 'unlikely' to drive given direct exposure to each of the countermeasures.

Seeing of hearing information attracted the lowest percentage (76.8%) of the countermeasures rated, while receiving a Community Correction Orders (CCO) (95.4%), vehicle impoundment (91.3%) and participation in alcohol and/or other drug rehabilitation programs (90.7%) were rated highest. Being stopped by police was also rated in this way by 82.0% of respondents as was fines.

A small proportion of users were resistant to each countermeasure, stating they would remain 'likely' or 'very likely' to drive even following direct experience of specific countermeasures (average of 3.7% and 2.3% of respondents across all measures), while a group were 'non-committal', signalling they were neither unlikely or likely to engage in drug-driving (average of 8.5% of respondents across all countermeasures).

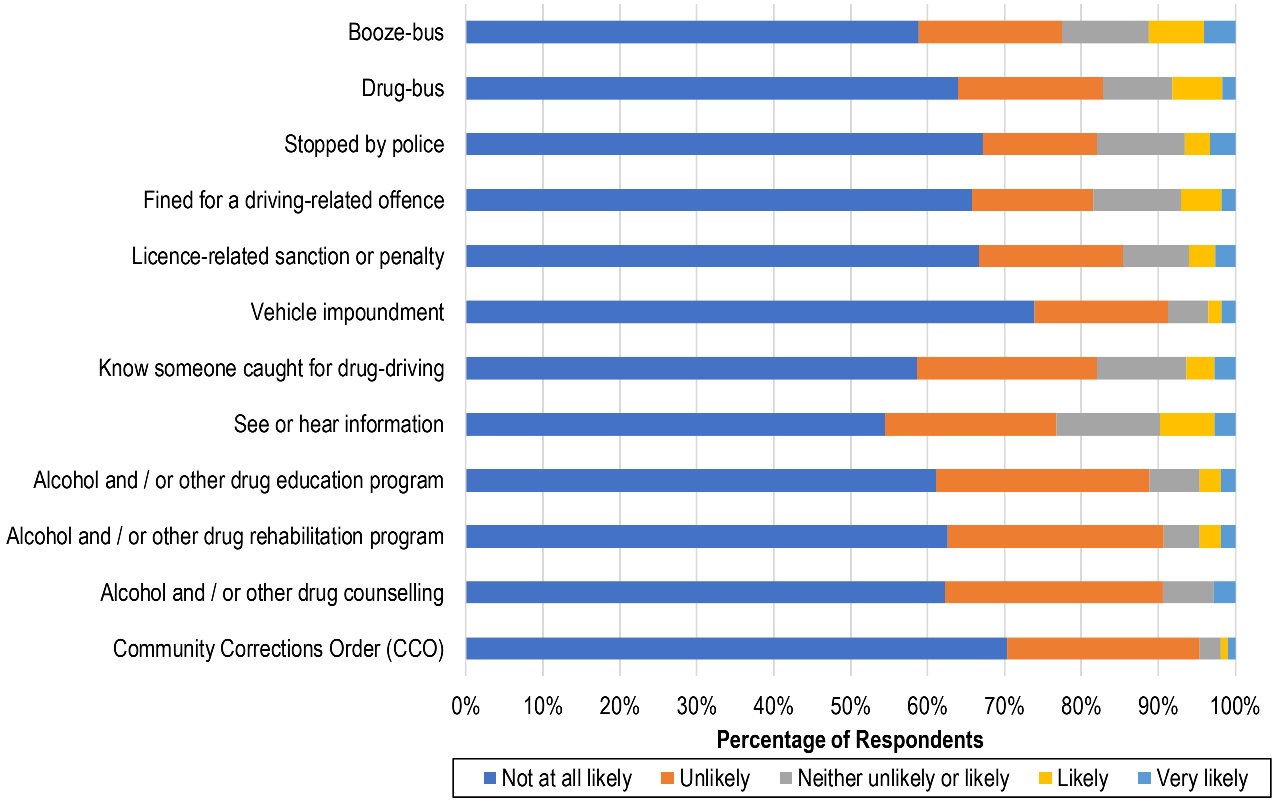

FIGURE 4.21 ECSTASY USERS SELF-REPORTED LIKELIHOOD OF FUTURE DRUG-DRIVING GIVEN EXPOSURE TO SPECIFIC COUNTERMEASURES

TABLE 4.16 ECSTASY USERS SELF-REPORTED LIKELIHOOD OF FUTURE DRUG-DRIVING GIVEN EXPOSURE TO SPECIFIC COUNTERMEASURES

Countermeasure	Not at all likely	Unlikely	Neither	Likely	Very likely
Booze-bus	67.6%	21.3%	13.0%	8.3%	4.6%
Drug-bus	72.2%	21.3%	10.2%	7.4%	1.9%
Stopped by police	75.9%	16.7%	13.0%	3.7%	3.7%
Fined for a driving-related offence	69.4%	16.7%	12.0%	5.6%	1.9%
Licence-related sanction or penalty	72.2%	20.4%	9.3%	3.7%	2.8%
Vehicle impoundment	78.7%	18.5%	5.6%	1.9%	1.9%
Know someone caught for drug-driving	60.2%	24.1%	12.0%	3.7%	2.8%
See or hear information	56.5%	23.1%	13.9%	7.4%	2.8%
Alcohol and/or other drug education program	61.1%	27.8%	6.5%	2.8%	1.9%
Alcohol and/or other drug rehabilitation program	62.0%	27.8%	4.6%	2.8%	1.9%
Alcohol and/or other drug counselling	61.1%	27.8%	6.5%	0.0%	2.8%
Community Corrections Order (CCO)	70.4%	25.0%	2.8%	0.9%	0.9%

† Sample size: 192 (Ecstasy users)

Ecstasy users were also asked how effective each countermeasure would be in preventing others from engaging in drug-driving behaviour (Figure 4.22, Table 4.17). Of the listed countermeasures, vehicle impoundment was rated as being 'extremely effective' by 39.1% of respondents, this being the highest single effectiveness rating. This was followed by licence-related sanctions (25.5%), a CCO (25.5%), and participation in an alcohol and/or other drug rehabilitation program (22.2%).

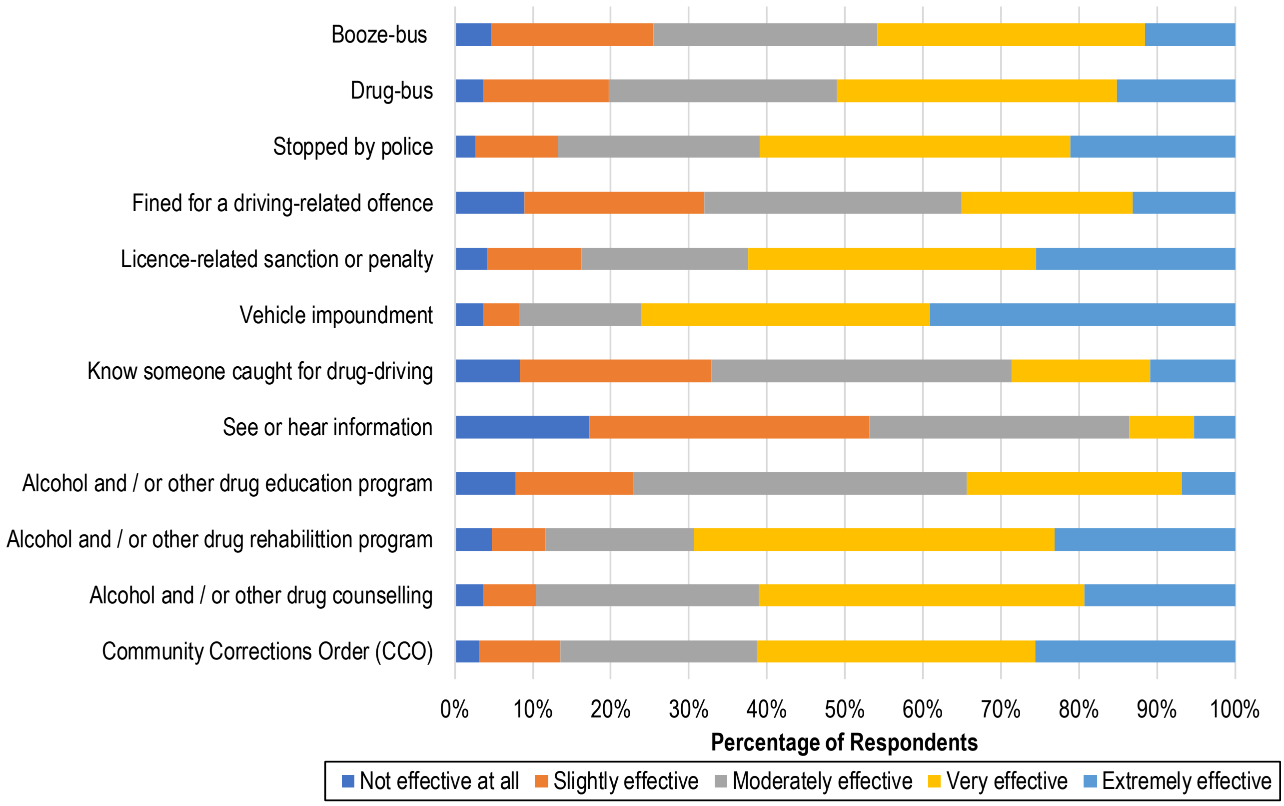

FIGURE 4.22 ECSTASY USERS PERCEIVED EFFECTIVENESS OF SPECIFIC COUNTERMEASURES PREVENTING OTHERS FROM DRUG-DRIVING

TABLE 4.17 ECSTASY USERS PERCEIVED EFFECTIVENESS OF SPECIFIC COUNTERMEASURES PREVENTING OTHERS FROM DRUG-DRIVING (FIGURE 4.12)†

Countermeasure	Not effective at all	Slightly effective	Moderately effective	Very effective	Extremely effective	Missing
Booze-bus	4.7%	20.8%	28.6%	34.4%	11.5%	0.0%
Drug-bus	3.6%	16.1%	29.2%	35.9%	15.1%	0.0%
Stopped by police	2.6%	10.4%	25.5%	39.1%	20.8%	1.6%
Fined for a driving-related offence	8.9%	22.9%	32.8%	21.9%	13.0%	0.5%
Licence-related sanction or penalty	4.2%	12.0%	21.4%	37.0%	25.5%	0.0%
Vehicle impoundment	3.6%	4.7%	15.6%	37.0%	39.1%	0.0%
Know someone caught for drug-driving	8.3%	24.5%	38.5%	17.7%	10.9%	0.0%
See or hear information	17.2%	35.9%	33.3%	8.3%	5.2%	0.0%
Alcohol and/or other drug education program	7.8%	15.1%	42.7%	27.6%	6.8%	0.0%
Alcohol and/or other drug rehabilitation program	4.7%	6.8%	18.8%	45.8%	22.9%	1.0%
Alcohol and/or other drug counselling	3.6%	6.8%	28.6%	41.7%	19.3%	0.0%
Community Corrections Order (CCO)	3.1%	10.4%	25.0%	35.4%	25.5%	0.5%

† Sample size: 192 (Ecstasy users)

4.5.3 Ice user's perspective on drug-driving following exposure to countermeasures

Attitudes of users of Ice towards countermeasures were examined so as to gain an understanding of which countermeasures would influence their decision to drive in the future (Figure 4.23, Table 4.18). The categories range from 'not at all likely to drive / unlikely' through to 'likely / very likely'; this latter categorisation means the measure would have little, if any, effect on the decision to drive. The percentages shown in Figure 4.23 and Table 4.18 relate to those ice-users that stated that they had previously driven after use.

For self-reported Ice users, the most effective countermeasure perceived to reduce their future likelihood of drug-driving was vehicle impoundment (83.3%), issuance of a CCO (80.6%), and participation in a drug and alcohol rehabilitation program (80%).

The majority of respondents also stated that having exposure to a 'booze bus' (67.0%) and a drug-bus (76.0%) would translate to being 'not at all likely or unlikely' to drive under the influence of Ice. However, approximately 16% stated they would remain 'likely or very likely' to drive under the influence of Ice even with exposure to these measures. Along with knowing someone that has been caught, seeing or hearing information about drugs and driving were regarded to be the least effective countermeasures.

A small proportion of users were resistant to each countermeasure. These respondents stated that they would remain 'likely' or 'very likely' to drive even following direct experience of specific countermeasures (average of 6.1% and 4.1% of respondents across all measures). In addition, a group remained 'non-committal', signalling they were neither unlikely or likely to engage in drug-driving given direct exposure to each measure; this translated to an average of 15.2% of respondents across all countermeasures. On these latter statistics, these were approximately double those of cannabis and ecstasy users. This further demonstrates the difficulty in managing the Ice user group from a road safety perspective.

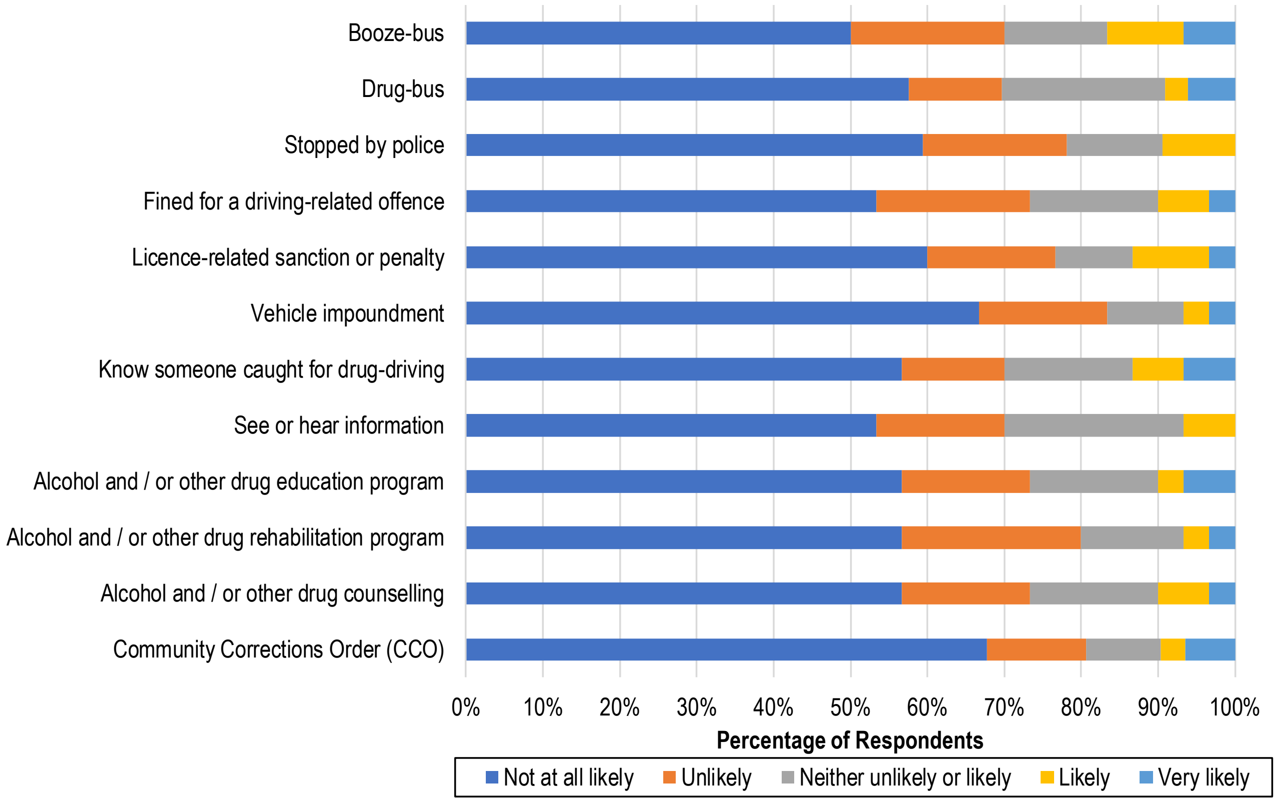

FIGURE 4.23 ICE USERS SELF-REPORTED LIKELIHOOD OF FUTURE DRUG-DRIVING GIVEN EXPOSURE TO SPECIFIC COUNTERMEASURES

TABLE 4.18 ICE USERS SELF-REPORTED LIKELIHOOD OF FUTURE DRUG-DRIVING GIVEN EXPOSURE TO SPECIFIC COUNTERMEASURES

Countermeasure	Not at all likely	Unlikely	Neither	Likely	Very likely
Booze-bus	48.4%	19.4%	12.9%	9.7%	6.5%
Drug-bus	61.3%	12.9%	22.6%	3.2%	6.5%
Stopped by police	61.3%	19.4%	12.9%	9.7%	0.0%
Fined for a driving-related offence	51.6%	19.4%	16.1%	6.5%	3.2%
Licence-related sanction or penalty	58.1%	16.1%	9.7%	9.7%	3.2%
Vehicle impoundment	64.5%	16.1%	9.7%	3.2%	3.2%
Know someone caught for drug-driving	54.8%	12.9%	16.1%	6.5%	6.5%
See or hear information	51.6%	16.1%	22.6%	6.5%	0.0%
Alcohol and/or other drug education program	54.8%	16.1%	16.1%	3.2%	6.5%
Alcohol and/or other drug rehabilitation program	54.8%	22.6%	12.9%	3.2%	3.2%
Alcohol and/or other drug counselling	54.8%	16.1%	16.1%	6.5%	3.2%
Community Corrections Order (CCO)	67.7%	12.9%	9.7%	3.2%	6.5%

† Sample size: 41 (Ice users)

Figure 4.24 and Table 4.19 presents the perceived effectiveness ratings of each countermeasure with respect to reducing drug-driving of others. Vehicle impoundment was perceived to be the most effective countermeasure, followed by drug and alcohol rehabilitation programs and licence-related sanctions or penalties.

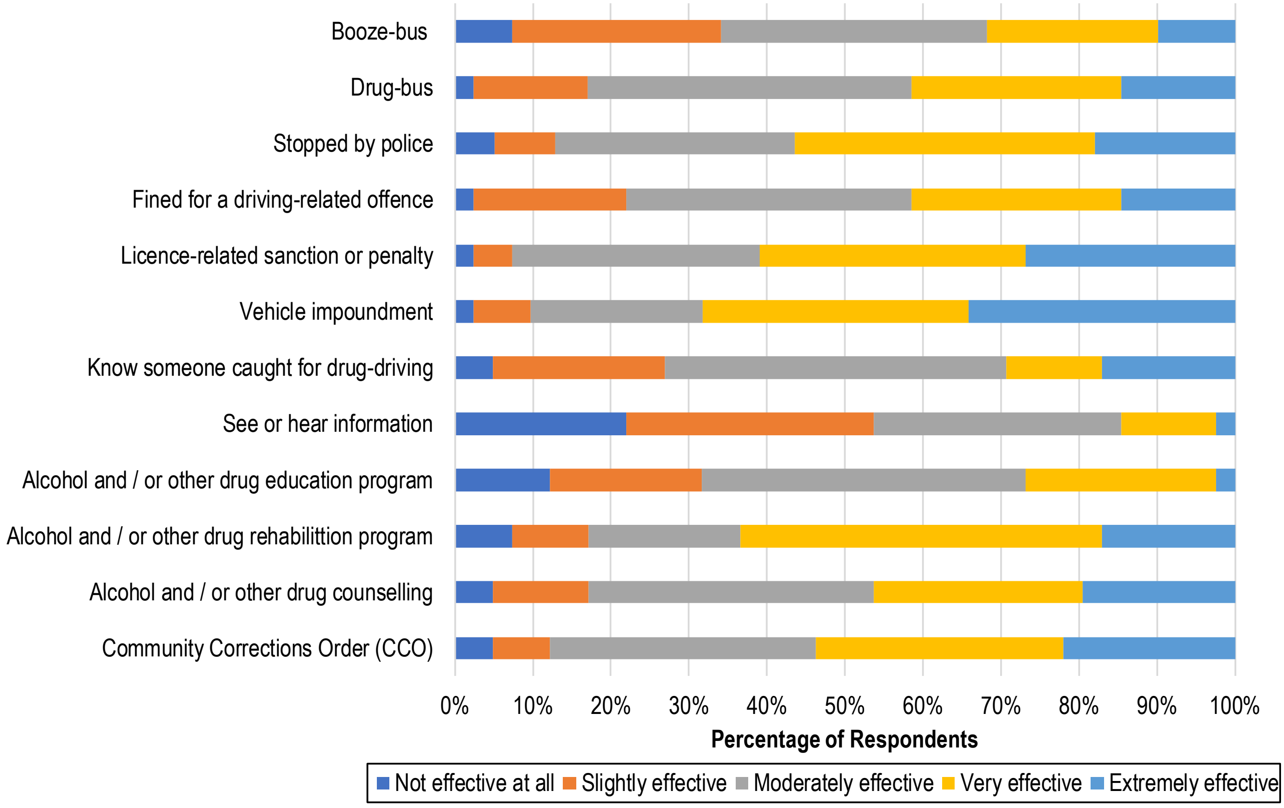

FIGURE 4.24 ICE USERS PERCEIVED EFFECTIVENESS OF SPECIFIC COUNTERMEASURES PREVENTING OTHERS FROM DRUG-DRIVING

TABLE 4.19 ICE USERS PERCEIVED EFFECTIVENESS OF SPECIFIC COUNTERMEASURES PREVENTING OTHERS FROM DRUG-DRIVING†

Countermeasure	Not effective at all	Slightly effective	Moderately effective	Very effective	Extremely effective	Missing
Booze-bus	7.3%	26.8%	34.1%	22.0%	9.8%	0.0%
Drug-bus	2.4%	14.6%	41.5%	26.8%	14.6%	0.0%
Stopped by police	4.9%	7.3%	29.3%	36.6%	17.1%	4.9%
Fined for a driving-related offence	2.4%	19.5%	36.6%	26.8%	14.6%	0.0%
Licence-related sanction or penalty	2.4%	4.9%	31.7%	34.1%	26.8%	0.0%
Vehicle impoundment	2.4%	7.3%	22.0%	34.1%	34.1%	0.0%
Know someone caught for drug-driving	4.9%	22.0%	43.9%	12.2%	17.1%	0.0%
See or hear information	22.0%	31.7%	31.7%	12.2%	2.4%	0.0%
Alcohol and/or other drug education program	12.2%	19.5%	41.5%	24.4%	2.4%	0.0%
Alcohol and/or other drug rehabilitation program	7.3%	9.8%	19.5%	46.3%	17.1%	0.0%
Alcohol and/or other drug counselling	4.9%	12.2%	36.6%	26.8%	19.5%	0.0%
Community Corrections Order (CCO)	4.9%	7.3%	34.1%	31.7%	22.0%	0.0%

Sample size: 41 (Ice users)

The results above show that vehicle impoundment was perceived to be one of the most effective countermeasures for preventing drug-driving both for one's self, and for others. Participation in alcohol and drug rehabilitation programs were also strongly supported, as were licence-related sanctions or penalties and being stopped by police.

These findings highlight the potential for a combined sanction-based deterrence model *and* therapeutic-based interventions (i.e., rehabilitation-based programs) to successfully manage the drug-driving problem. That both types of interventions are considered to be effective by those that have drug-driven suggests that a move towards a therapeutic-justice intervention model as a means of reducing the incidence of, and ultimately preventing future drug-driving episodes, among known offenders and the broader community is warranted.

4.5.4 Level of support for sanctions and interventions to address drug-driving

Respondents were asked to indicate their level of support for a range of countermeasures aimed at addressing drug-driving behaviour. Participants were asked to rate their level of support by stating whether they strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree, or strongly agree with each countermeasure.

Findings are presented across the total participant sample, those who have never tried any substance before, in addition to the three substance user groups of interest: cannabis, ecstasy and Ice.

Based on all respondents in the survey, the level of support in order of high-to-low is presented in Table 4.20. Differences in the level of support for countermeasures across the different drug use groups can also be seen. Further detail is provided in a series of Tables and Figures below.

In short, random roadside drug testing received the highest level of support, along with associated penalties. Monitoring of known offenders and combined sanction-health-based approaches were supported by more than 80% of respondents. Differences in the level of agreement is evident across the groups.

The reader is referred to Section 4.6 for a more detailed discussion of the perceived effectiveness and level of support among recent users, those that have used drugs previously but not in the last 12-months, and those that have never used illicit drugs (excluding alcohol).

TABLE 4.20 RANK ORDER OF PERCENT LEVEL OF AGREE / STRONGLY AGREE FOR COUNTERMEASURES

Agree order based on 'all'	Countermeasure	All	Non-users of alcohol or drugs	Cannabis Users	Ecstasy Users	Ice Users
1	Random roadside testing	91.9%	90.0%	89.5%	82.3%	70.7%
2	Licence suspension	90.3%	89.0%	86.8%	83.3%	68.3%
3	Regular monitoring of known offenders via testing	89.4%	88.4%	84.4%	83.3%	78.1%
4	Demerit points	87.5%	87.9%	84.6%	79.7%	73.1%
5	Vehicle impoundment	84.9%	84.9%	79.6%	71.9%	65.8%
6	Licence cancellation	84.4%	85.9%	78.1%	74.4%	60.9%
7	Financial penalties / Fines	81.9%	84.9%	76.5%	68.2%	63.4%
8	Therapeutic-justice model	80.4%	79.4%	76.7%	77.1%	73.2%
9	Education programs (i.e., behaviour change programs)	80.1%	79.4%	76.9%	75.0%	78.0%
10	Double demerit points	78.6%	80.9%	70.1%	64.0%	73.2%
11	Rehabilitation program	78.3%	77.9%	76.1%	74.0%	61.0%
12	Regular monitoring of known offenders via bracelet	73.5%	74.9%	62.4%	56.8%	58.5%
13	Imprisonment	67.2%	70.8%	56.4%	52.1%	51.2%
14	Community service	66.5%	65.9%	64.5%	64.6%	63.4%
15	Telephone counselling	47.7%	52.8%	45.8%	47.9%	48.8%
16	Online program (e-therapy)	43.3%	50.2%	40.1%	43.2%	41.5%

Support for countermeasures to address drug-driving among the population-based sample

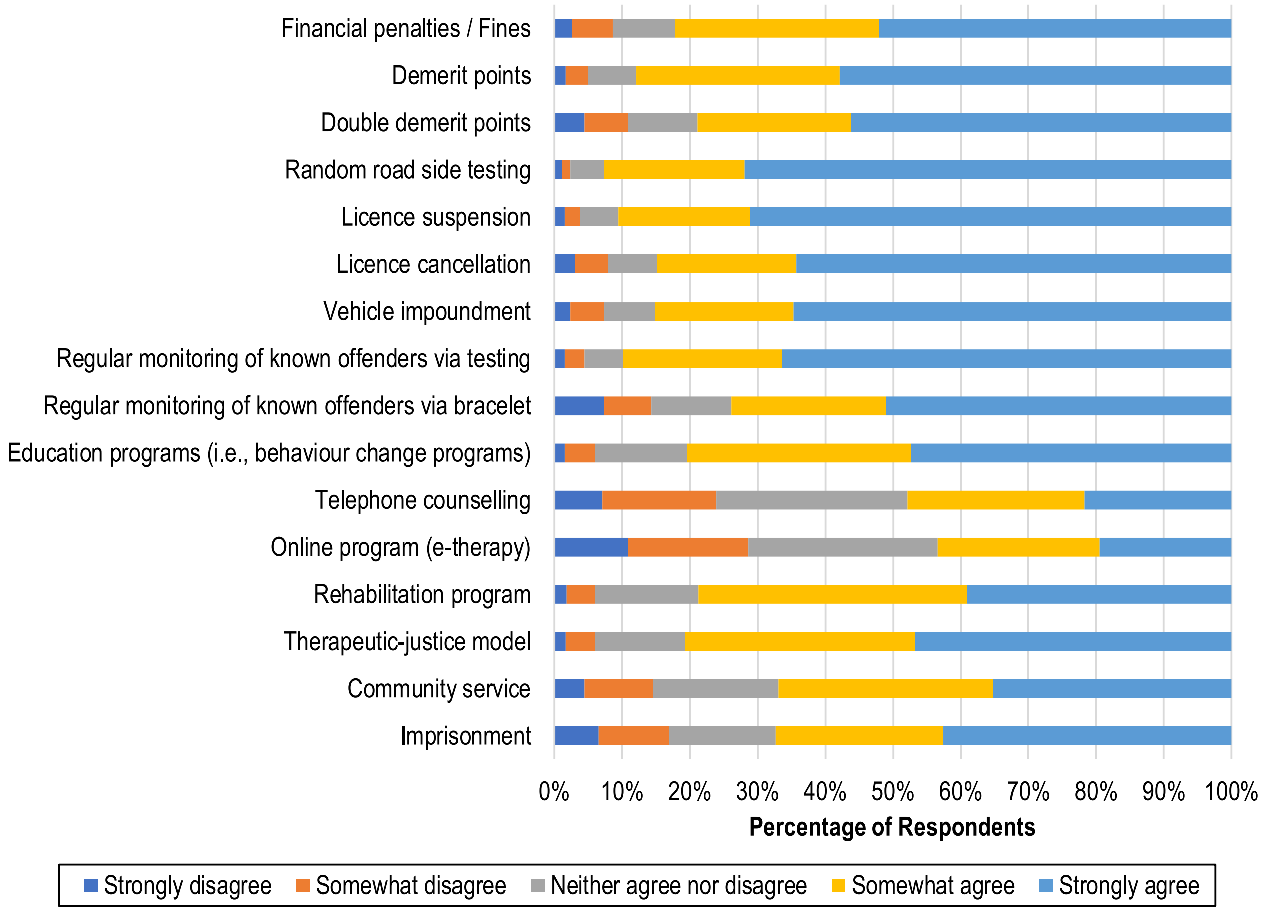

FIGURE 4.25 PERCEIVED LEVEL OF SUPPORT FOR SANCTIONS AND INTERVENTIONS TO ADDRESS DRUG-DRIVING (ALL RESPONDENTS, N = 1,852)

TABLE 4.21 PERCEIVED LEVEL OF SUPPORT FOR COUNTERMEASURES TO ADDRESS DRUG-DRIVING (ALL RESPONDENTS)†

Sanction / Intervention	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Missing
Financial penalties / Fines	2.7%	5.9%	9.2%	30.1%	51.8%	0.3%
Demerit points	1.7%	3.3%	7.0%	29.9%	57.6%	0.4%
Double demerit points	4.5%	6.3%	10.2%	22.6%	56.0%	0.4%
Random roadside testing	1.1%	1.3%	4.9%	20.6%	71.3%	0.7%
Licence suspension	1.6%	2.1%	5.7%	19.5%	70.8%	0.2%
Licence cancellation	3.1%	4.8%	7.2%	20.5%	63.9%	0.5%
Vehicle impoundment	2.4%	4.9%	7.5%	20.4%	64.5%	0.4%
Regular monitoring of known offenders via testing	1.6%	2.8%	5.7%	23.4%	66.0%	0.5%
Regular monitoring of known offenders via bracelet	7.3%	7.0%	11.8%	22.7%	50.8%	0.5%
Education programs (i.e., behaviour change programs)	1.5%	4.5%	13.6%	32.9%	47.2%	0.3%
Telephone counselling	7.1%	16.7%	28.1%	26.1%	21.6%	0.3%
Online program (e-therapy)	10.8%	17.7%	27.9%	23.9%	19.4%	0.3%
Rehabilitation program	1.8%	4.1%	15.3%	39.4%	38.9%	0.5%
Therapeutic-justice model	1.7%	4.3%	13.2%	33.9%	46.5%	0.5%
Community service	4.5%	10.1%	18.4%	31.5%	35.0%	0.5%
Imprisonment	6.5%	10.5%	15.6%	24.7%	42.5%	0.3%

† Sample size: 1,852 (All respondents)

Support for countermeasures to address drug-driving among non-users of alcohol and other drugs

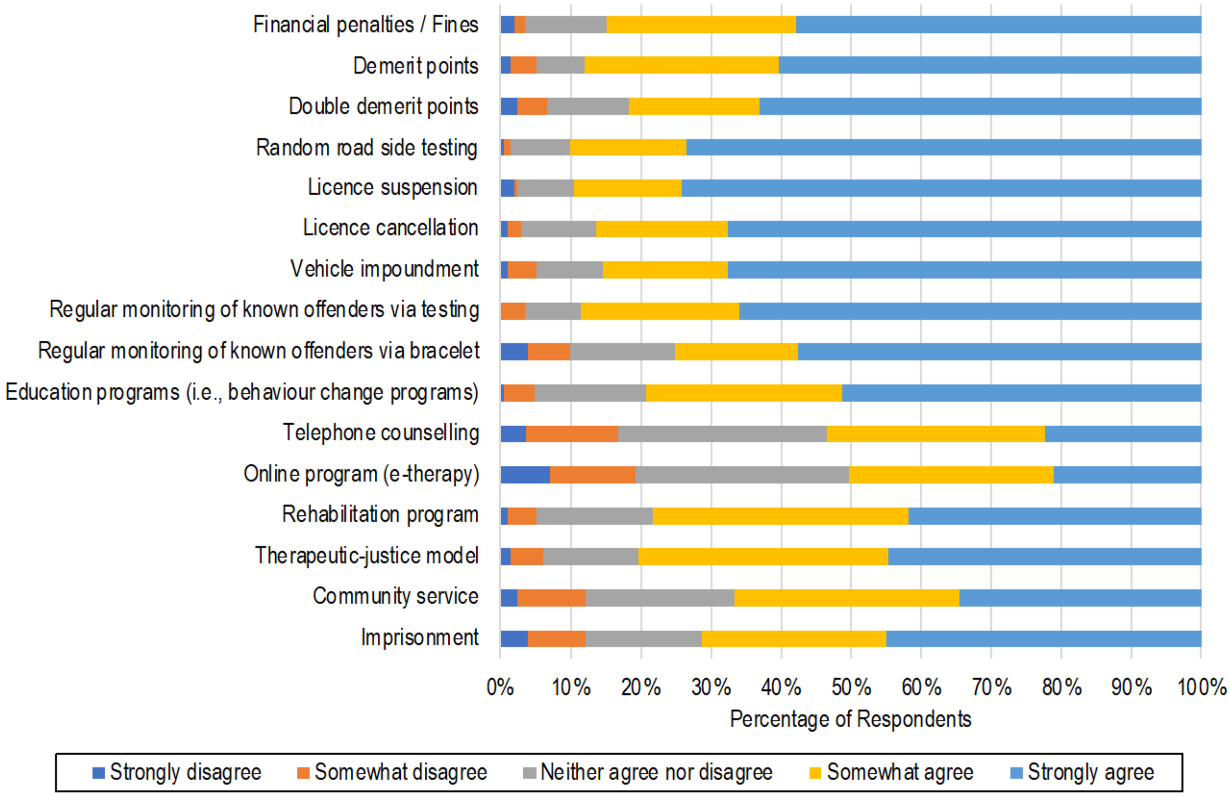

FIGURE 4.26 LEVEL OF SUPPORT FOR SANCTIONS AND INTERVENTIONS AMONG 'NEVER-USED' RESPONDENTS (N = 199)

Support for countermeasures to address drug-driving among cannabis users

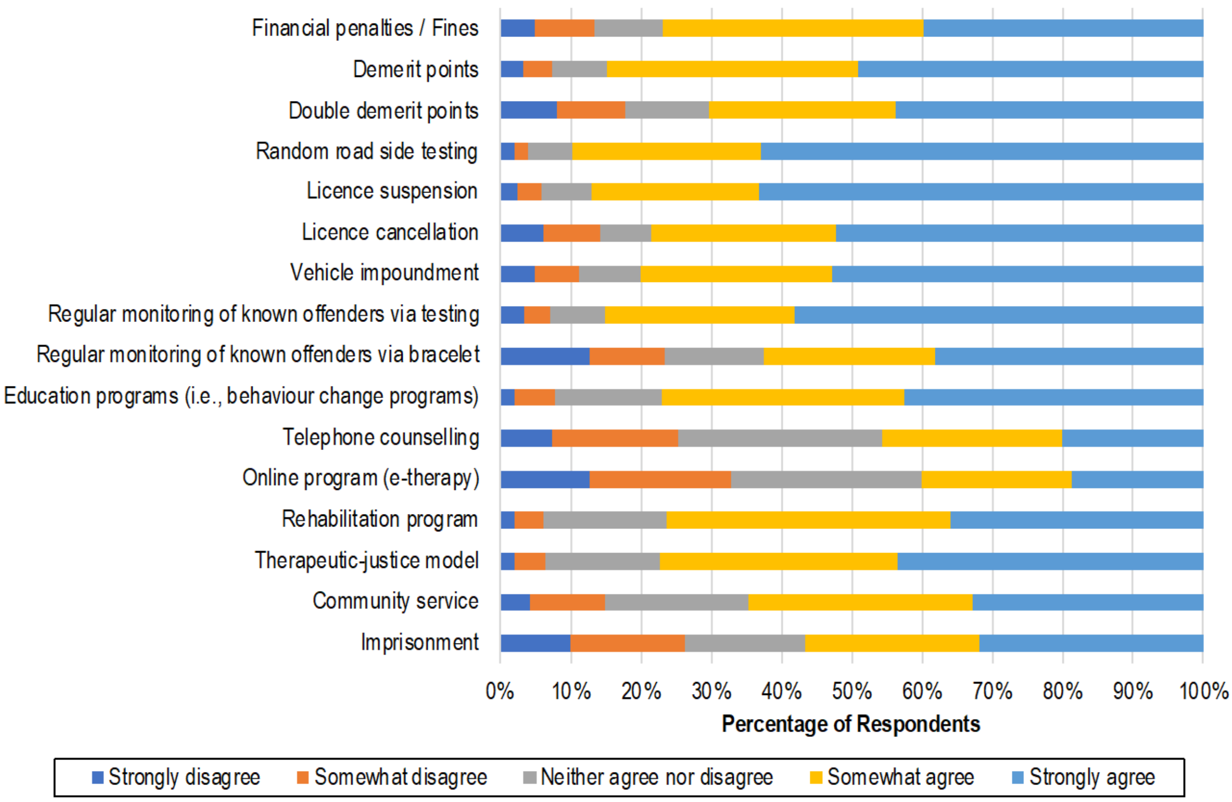

FIGURE 4.27 PERCEIVED LEVEL OF SUPPORT FOR SANCTIONS AND INTERVENTIONS TO ADDRESS DRUG-DRIVING AMONG SELF-REPORTED CANNABIS USERS (N = 589)

Support for countermeasures to address drug-driving among self-reported users of ecstasy

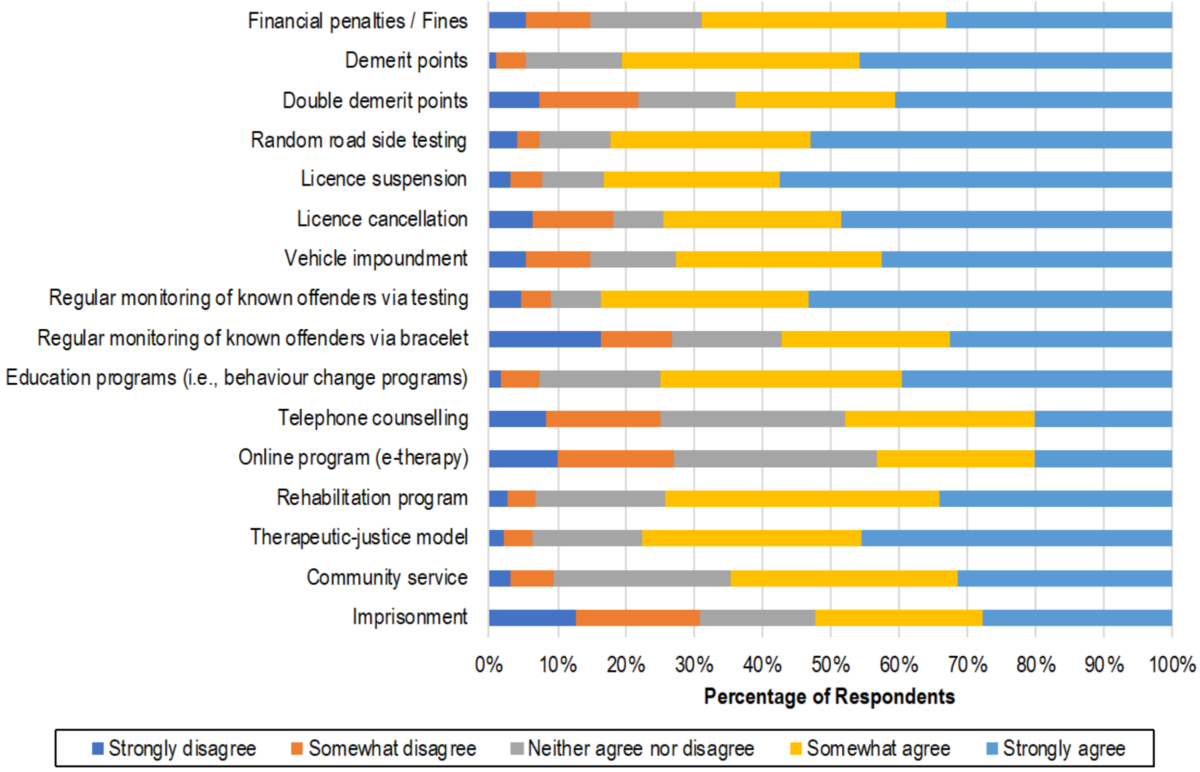

FIGURE 4.28 PERCEIVED LEVEL OF SUPPORT FOR SANCTIONS AND INTERVENTIONS TO ADDRESS DRUG-DRIVING AMONG SELF-REPORTED ECSTASY USERS (N = 192)

Support for countermeasures to address drug-driving among self-reported users of ice

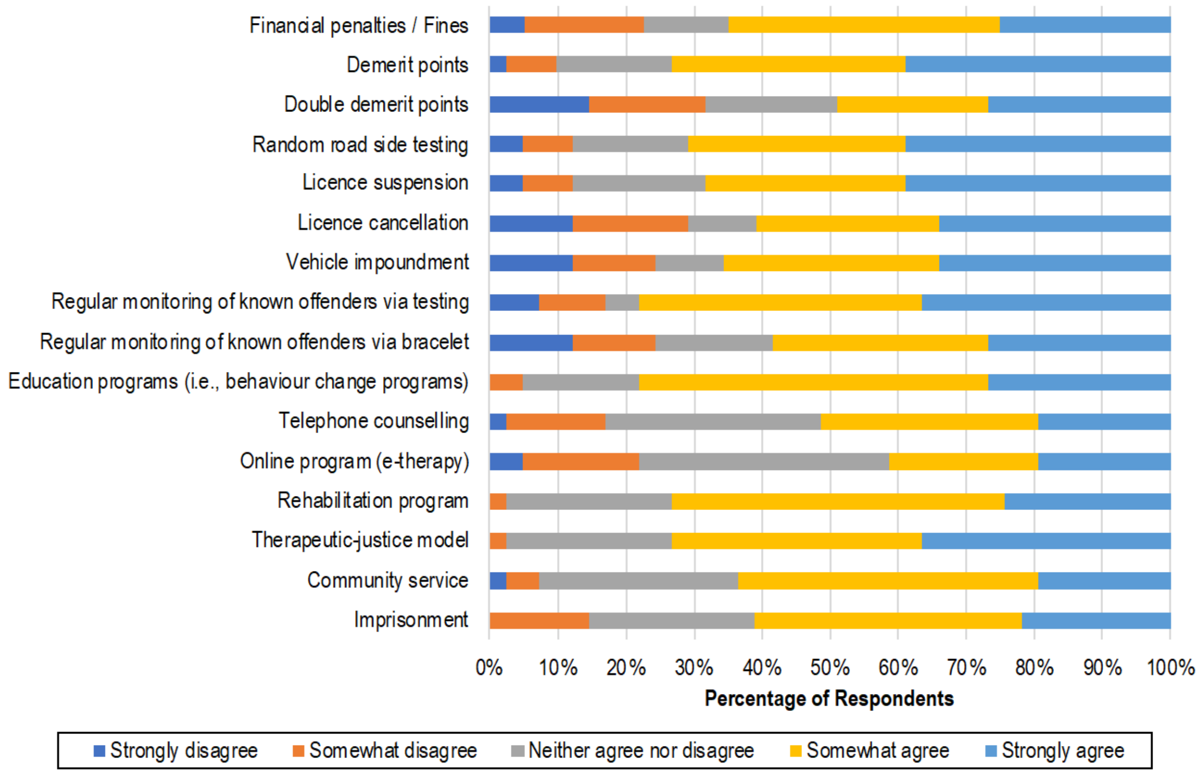

FIGURE 4.29 PERCEIVED LEVEL OF SUPPORT FOR SANCTIONS AND INTERVENTIONS TO ADDRESS DRUG-DRIVING AMONG SELF-REPORTED ICE USERS (N = 41)

TABLE 4.22 PERCEIVED LEVEL OF SUPPORT FOR COUNTERMEASURES TO ADDRESS DRUG- DRIVING AMONG 'NEVER-USED RESPONDENTS' (FIGURE 4.26)†

Sanction / Intervention	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Missing
Financial penalties / Fines	2.0%	1.5%	11.6%	27.1%	57.8%	0.0%
Demerit points	1.5%	3.5%	7.0%	27.6%	60.3%	0.0%
Double demerit points	2.5%	4.0%	11.6%	18.6%	62.3%	1.0%
Random roadside testing	0.5%	1.0%	8.5%	16.6%	73.4%	0.0%
Licence suspension	2.0%	0.5%	8.0%	15.1%	73.9%	0.5%
Licence cancellation	1.0%	2.0%	10.6%	18.6%	67.3%	0.5%
Vehicle impoundment	1.0%	4.0%	9.5%	17.6%	67.3%	0.5%
Regular monitoring of known offenders via testing	0.0%	3.5%	8.0%	22.6%	65.8%	0.0%
Regular monitoring of known offenders via bracelet	4.0%	6.0%	14.6%	17.6%	57.3%	0.5%
Education programs (i.e., behaviour change programs)	0.5%	4.5%	15.6%	28.1%	51.3%	0.0%
Telephone counselling	3.5%	13.1%	29.1%	30.7%	22.1%	1.5%
Online program (e-therapy)	7.0%	12.1%	30.2%	29.1%	21.1%	0.5%
Rehabilitation program	1.0%	4.0%	16.6%	36.2%	41.7%	0.5%
Therapeutic-justice model	1.5%	4.5%	13.6%	35.2%	44.2%	1.0%
Community service	2.5%	9.5%	21.1%	31.7%	34.2%	1.0%
Imprisonment	4.0%	8.0%	16.6%	26.1%	44.7%	0.5%

† Sample size: 199 (Never used)

TABLE 4.23 PERCEIVED LEVEL OF SUPPORT FOR COUNTERMEASURES TO ADDRESS DRUG-DRIVING AMONG SELF-REPORTED CANNABIS USERS (FIGURE 4.27)†

Sanction / Intervention	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Missing
Financial penalties / Fines	4.8%	8.5%	9.8%	36.8%	39.7%	0.3%
Demerit points	3.1%	4.1%	7.8%	35.7%	48.9%	0.5%
Double demerit points	8.1%	9.7%	11.9%	26.3%	43.8%	0.2%
Random roadside testing	2.0%	2.0%	6.1%	26.7%	62.8%	0.3%
Licence suspension	2.5%	3.4%	7.0%	23.8%	63.0%	0.3%
Licence cancellation	6.1%	8.0%	7.3%	26.1%	52.0%	0.5%
Vehicle impoundment	4.8%	6.3%	8.8%	27.0%	52.6%	0.5%
Regular monitoring of known offenders via testing	3.4%	3.7%	7.6%	26.8%	57.6%	0.8%
Regular monitoring of known offenders via bracelet	12.6%	10.7%	14.1%	24.4%	38.0%	0.2%
Education programs (i.e., behaviour change programs)	1.9%	5.8%	15.1%	34.5%	42.4%	0.3%
Telephone counselling	7.3%	18.0%	28.9%	25.6%	20.2%	0.0%
Online program (e-therapy)	12.7%	20.2%	26.8%	21.4%	18.7%	0.2%
Rehabilitation program	2.0%	4.1%	17.5%	40.1%	36.0%	0.3%
Therapeutic-justice model	2.0%	4.2%	16.3%	33.6%	43.1%	0.7%
Community service	4.2%	10.7%	20.2%	31.7%	32.8%	0.3%
Imprisonment	10.0%	16.1%	17.0%	24.8%	31.6%	0.5%

† Sample size: 589 (Cannabis users)

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TABLE 4.24 PERCEIVED LEVEL OF SUPPORT FOR COUNTERMEASURES TO ADDRESS DRUG-DRIVING AMONG SELF-REPORTED ECSTASY (MDMA) USERS (FIGURE 4.28)†

Sanction / Intervention	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Missing
Financial penalties / Fines	5.2%	9.4%	16.1%	35.4%	32.8%	1.0%
Demerit points	1.0%	4.2%	14.1%	34.4%	45.3%	1.0%
Double demerit points	7.3%	14.6%	14.1%	23.4%	40.6%	0.0%
Random roadside testing	4.2%	3.1%	10.4%	29.2%	53.1%	0.0%
Licence suspension	3.1%	4.7%	8.9%	26.0%	57.3%	0.0%
Licence cancellation	6.3%	12.0%	7.3%	26.0%	48.4%	0.0%
Vehicle impoundment	5.2%	9.4%	12.5%	29.7%	42.2%	1.0%
Regular monitoring of known offenders via testing	4.7%	4.2%	7.3%	30.2%	53.1%	0.5%
Regular monitoring of known offenders via bracelet	16.1%	10.4%	16.1%	24.5%	32.3%	0.5%
Education programs (i.e., behaviour change programs)	1.6%	5.7%	17.7%	35.4%	39.6%	0.0%
Telephone counselling	8.3%	16.7%	27.1%	27.6%	20.3%	0.0%
Online program (e-therapy)	9.9%	17.2%	29.7%	22.9%	20.3%	0.0%
Rehabilitation program	2.6%	4.2%	18.8%	40.1%	33.9%	0.5%
Therapeutic-justice model	2.1%	4.2%	16.1%	31.8%	45.3%	0.5%
Community service	3.1%	6.3%	26.0%	33.3%	31.3%	0.0%
Imprisonment	12.5%	18.2%	16.7%	24.5%	27.6%	0.5%

† Sample size: 192 (Ecstasy users)

TABLE 4.25 PERCEIVED LEVEL OF SUPPORT FOR COUNTERMEASURES TO ADDRESS DRUG-DRIVING AMONG SELF-REPORTED ICE USERS (FIGURE 4.29)†

Sanction / Intervention	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Missing
Financial penalties / Fines	4.90%	17.10%	12.20%	39.00%	24.40%	2.40%
Demerit points	2.40%	7.30%	17.10%	34.10%	39.00%	0.00%
Double demerit points	14.60%	17.10%	19.50%	22.00%	26.80%	0.00%
Random roadside testing	4.90%	7.30%	17.10%	31.70%	39.00%	0.00%
Licence suspension	4.90%	7.30%	19.50%	29.30%	39.00%	0.00%
Licence cancellation	12.20%	17.10%	9.80%	26.80%	34.10%	0.00%
Vehicle impoundment	12.20%	12.20%	9.80%	31.70%	34.10%	0.00%
Regular monitoring of known offenders via testing	7.30%	9.80%	4.90%	41.50%	36.60%	0.00%
Regular monitoring of known offenders via bracelet	12.20%	12.20%	17.10%	31.70%	26.80%	0.00%
Education programs (i.e., behaviour change programs)	0.00%	4.90%	17.10%	51.20%	26.80%	0.00%
Telephone counselling	2.40%	14.60%	31.70%	31.70%	19.50%	0.00%
Online program (e-therapy)	4.90%	17.10%	36.60%	22.00%	19.50%	0.00%
Rehabilitation program	0.00%	2.40%	24.40%	48.80%	24.40%	0.00%
Therapeutic-justice model	0.00%	2.40%	24.40%	36.60%	36.60%	0.00%
Community service	2.40%	4.90%	29.30%	43.90%	19.50%	0.00%
Imprisonment	0.00%	14.60%	24.40%	39.00%	22.00%	0.00%

† Sample size: 41 (Ice users)

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4.6 COMPARISON OF PERCEIVED EFFECTIVENESS AND SUPPORT FOR COUNTERMEASURES GIVEN RECENT USE, PAST USE AND NON-USE OF OTHER DRUGS

4.6.1 Demographic profile including crash and offence rates among different drug user groups

A comparison of the perceived level of effectiveness and level of support for countermeasures across different drug user groups was performed, the goal of which was to determine whether attitudes differed.

The 'use' groups were defined as follows:

- Those who had used any drug within the last 12 months.
- Those who had specifically used cannabis, (meth-)amphetamine type substances (including Ice, denoted as MA/AMP below) or ecstasy within the last 12 months.
- Respondents who had used illicit drugs or misused prescription medications in the past but not within the last 12 months.
- Those who had never used or misused any drugs (excluding alcohol) before.

Table 4.26 provides an overview of the demographics of the comparison groups, including crash involvement and offences within the last 12 months.

Of those individuals who reported any drug use within the last 12 months, there were more females (54%) than males (45%). A similar pattern was also observed for those who reported previous drug use but not within the last 12 months (female: 53.1%; male: 49.9%). In contrast, amongst those who specifically reported cannabis, MA/AMP substances or ecstasy use within the last 12 months, there was a higher proportion of males than females. In the never-used group, there were more males (53.1%) than females (46.7%)

With respect to the age distribution of the comparison groups, there were no individuals aged 65 years or older within the MA/AMP substance group and the ecstasy use group. Persons aged 25 to 44 years of age represented the largest proportion within each user group.

With respect to crash involvement, 18.9% of the MA/AMP substance use group, 18.8% of the ecstasy use group (18.8%), and 16.0% of the cannabis user group had been involved in a crash within the last 12 months. In contrast, 8.1% of respondents in the never-used drug group and 10.2% of previous users reported having been involved in a crash in the prior 12-months.

The same pattern emerged with respect to driving offences. Of particular note was the 29.7% of the MA/AMP recent use group indicated that they had received a fine or licence-related sanction for an offence within the last 12 months. While marginally less, 23.4% and 22.3% of those within the ecstasy and cannabis groups indicated having received an offence within the last 12 months. Hence, offence rates were considerably higher in these three user groups compared to those reporting previous drug use (14.9%) or having never used drugs (11.3%).

The crash-involvement and offence self-report data illustrate are consistent in that users of MA/AMP, ecstasy and cannabis use were more likely to have been involved in a crash and received a driving-related offence than non-users. These results demonstrate that drivers exhibiting drug use behaviour represent an increased road safety risk.

TABLE 4.26 DEMOGRAPHICS OF COMPARISON GROUP, CRASH INVOLVEMENT AND OFFENCES WITHIN THE LAST 12 MONTHS

	Respondents	Sex		Age				% Crash within last 12 months	% offence within last 12 months
Comparison group	N (% of total sample, 1,852)	% females	% males	18 to 24 years	25 to 44 years	45 to 64 years	65 years and over		
Recent drug use – any† illicit drug within last 12 months	415 (22.4%)	54.2%	45.1%	16.4%	45.3%	30.6%	7.7%	13.3%	18.3%
Cannabis used within last 12 months	175 (9.5%)	42.9%	57.1%	28.6%	45.1%	22.9%	3.4%	16.0%	22.3%
MA/AMP substances (including Ice) used within last 12 months	37 (2.0%)	40.5%	59.5%	10.8%	62.2%	27.0%	-	18.9%	29.7%
Ecstasy (MDMA)	64 (3.5%)	45.3%	54.7%	25.0%	60.9%	14.1%	-	18.8%	23.4%
Previous drug use (not within last 12 months)	384 (20.7%)	53.1%	46.9%	8.1%	45.8%	34.6%	11.5%	10.2%	14.9%
No drug use ever (excluding alcohol)	1,053 (56.9%)	46.7%	53.1%	13.5%	39.1%	28.1%	19.3%	8.1%	11.3%

†, includes all drugs (Meth/Amphetamines, Cannabis, MDMA, Cocaine, GHB, Heroin, LSD / Hallucinogens, Ketamine, Opioid Substitutes, Opioids and Narcotic Analgesics, Benzodiazepines)

4.6.2 Perceived countermeasure effectiveness rated by different drug user group

Table 4.27 provides the findings for the perceived effectiveness of a range of countermeasures across the comparison groups of interest.

Among those who reported drug use, vehicle impoundment was rated to be 'very effective' to 'extremely effective' in deterring or preventing drug-driving behaviour by three-quarters (74.7%) of respondents. In contrast, only 12.8% rated seeing or hearing information as being 'very effective' to 'extremely effective' in deterring or preventing drug-driving behaviour. This pattern was consistent across the specific drug groups (i.e., cannabis, MA/AMP substances and ecstasy).

Whilst 70.9%, 70.3% and 71.9% of the cannabis, MA/AMP substance use and ecstasy use group, respectively, indicated that vehicle impoundment would be 'very' or 'extremely effective' in addressing drug-driving, a sizeable minority of each group respectively reported that it would not be an effective countermeasure (16.6%, 32.4% and 25.0% respectively).

For individuals who reported previous drug use but not within the last 12 months, vehicle impoundment again received the highest proportion of respondents (77.9%) giving a rating of 'very' or 'extremely effectively'. Respondents in this group stated that the least effective measure would relate to knowing someone caught for drug-driving.

This rating pattern was also consistent for those who reported having never used drugs before with 79.6% indicating that vehicle impoundment would be 'very' to 'extremely effective'.

Other countermeasures that were rated as 'very' or 'extremely effective' by greater than 60% included: alcohol and/or other drug rehabilitation programs; alcohol and/or other drug counselling; community corrections order (CCO); licence-related sanctions; being stopped by police.

Among recent cannabis users and previous drug users, rehabilitation programs were ranked second in terms of the percent of respondents rating this to be 'very' or 'extremely effective'. Community Correction Orders as a countermeasure rated highly.

For those who self-reported no current drug use (i.e., no use within the last 12 months and never used before), being stopped by police received the second highest proportion of respondents who rated the countermeasure as 'very' to 'extremely effective.

Collectively, these findings suggest that being caught for drug-driving may be an effective drug-driving for those without recent drug use, however among those indicating current drug use, countermeasures that are more punitive or restrict the individuals from driving are perceived to be more effective. Further, it is also worthy to note that drug and/or alcohol rehabilitation is also perceived to be an effective countermeasure to address drug-driving.

Interestingly, 'drug buses' and 'booze buses' did not rate as highly for effectiveness compared to some of the other countermeasures discussed above. Across all recent drug user groups, less than 50% of each group felt that they would be 'very' or 'extremely effective' in addressing drug-driving. Whilst a slightly higher proportion of individuals within the no current drug use groups felt that 'booze' and 'drug-buses' would be very to extremely effective, the proportions did not exceed 60% of the groups.

These findings suggest that those with recent drug use perceive countermeasures that restrict (through a CCO) or more deeply address their drug use problem (via rehabilitation programs) would be more effective in reducing drug-driving than countermeasures that are aimed at simply deterring drug-driving behaviour. This supports the notion that drug-driving is in part a manifestation of a broader range of personal and health-related concerns - including those relating to drug use specifically and mental health difficulties, for which a multi-faceted intervention approach would be required.

TABLE 4.27 PERCEIVED EFFECTIVENESS OF DIFFERENT COUNTERMEASURES

Countermeasure	Recent drug use (within the last 12 months)												Previous drug use (not within the last 12 months) (n = 384)			No drug use ever (excluding alcohol) (n = 1053)		
	Any drug (n = 415)			Cannabis (n = 175)			MA / AMP substances (n = 37)			Ecstasy (n = 64)								
	Not	Slight to mod	Very to extre-mely	Not	Slight to mod	Very to extre-mely	Not	Slight to mod	Very to extre-mely	Not	Slight to mod	Very to extre-mely	Not	Slight to mod	Very to extre-mely	Not	Slight to mod	Very to extre-mely
Booze bus	4.6%	52.5%	42.9%	6.3%	54.9%	38.9%	13.5%	51.4%	35.1%	7.8%	53.1%	39.1%	2.1%	45.8%	51.8%	4.7%	44.0%	51.3%
Drug bus	4.1%	48.4%	47.5%	5.1%	52.0%	42.9%	5.4%	59.5%	35.1%	3.1%	53.1%	43.8%	1.8%	39.6%	58.3%	3.9%	41.9%	54.0%
Stopped by police	3.6%	35.9%	59.5%	5.7%	37.7%	56.0%	13.5%	35.1%	48.6%	6.3%	51.6%	42.2%	1.3%	30.5%	67.2%	2.5%	28.5%	68.9%
Fined for driving-related offence	8.7%	51.6%	39.5%	12.6%	49.7%	37.7%	16.2%	45.9%	37.8%	14.1%	54.7%	31.3%	5.2%	51.3%	43.0%	5.7%	43.1%	50.7%
Licence-related sanction / penalty	3.4%	39.5%	56.9%	5.1%	39.4%	55.4%	5.4%	32.4%	62.2%	4.7%	35.9%	59.4%	2.3%	34.4%	63.0%	3.2%	31.8%	64.7%
Vehicle impoundment	3.6%	21.7%	74.7%	4.6%	24.6%	70.9%	5.4%	24.3%	70.3%	6.3%	21.9%	71.9%	1.8%	20.1%	77.9%	2.6%	17.2%	79.6%
Know someone else caught	7.2%	67.0%	25.8%	9.1%	64.0%	26.9%	13.5%	59.5%	27.0%	10.9%	56.3%	32.8%	9.1%	60.7%	29.9%	10.2%	54.0%	35.5%
See / hear information	12.0%	75.2%	12.8%	16.6%	73.1%	10.3%	32.4%	62.2%	5.4%	25.0%	65.6%	9.4%	7.6%	77.1%	14.8%	8.7%	65.1%	25.7%
Alcohol / drug education program	7.5%	61.9%	30.6%	12.6%	64.6%	22.9%	21.6%	51.4%	27.0%	9.4%	59.4%	31.3%	4.2%	57.3%	38.5%	4.8%	53.0%	41.9%
Alcohol / drug rehabilitation program	3.9%	31.8%	63.6%	5.7%	35.4%	58.9%	16.2%	21.6%	62.2%	7.8%	23.4%	68.8%	2.1%	31.0%	66.4%	2.8%	34.4%	62.4%
Alcohol / drug counselling	3.9%	41.2%	54.7%	5.7%	42.3%	52.0%	10.8%	35.1%	54.1%	4.7%	29.7%	65.6%	2.6%	40.6%	56.8%	2.7%	38.3%	58.8%
Community Corrections Order	6.5%	42.2%	51.1%	9.1%	38.9%	52.0%	8.1%	24.3%	67.6%	4.7%	25.0%	70.3%	4.4%	44.0%	51.3%	5.6%	40.4%	53.8%

4.6.3 Countermeasure support indicated by different drug user groups

As outlined in Section 4.5.4, respondents were asked to indicate their level of support for specific countermeasure initiatives to address drug-driving. Table 4.28 summarises the results found across different drug use groups.

For ease of interpretation, ratings of 'strongly disagree' and 'somewhat disagree' were combined to form the category of '*Disagree*'. Similarly, the rating category of 'somewhat agree' and 'strongly agree' categories were combined to form the category, '*Agree*'. Note that proportion of respondents who indicated 'Neither agree nor disagree' are not represented in Table 4.28 as the primary focus was to ascertain which initiatives were supported by the sample.

Across all groups, the initiative with the highest level of support (i.e., indicated by percent agree) was random roadside testing, with the exception of the ecstasy group where the highest support was seen for licence suspension. For those within the MA/AMP substance use group, equal highest support was given for regular monitoring of known offenders via testing and education programs (i.e., behaviour change programs).

The countermeasure with the least support differed across the drug-use groups. Online programs (i.e., e-therapy) were the least supported in the broader recent drug user group, as well by the previous drug user group. Interestingly however, participants within the recent cannabis and ecstasy user groups disagreed with imprisonment the most, whereas those within the recent MA/AMP substance user group disagreed with double demerit points the most.

Across all initiatives, support was highest among the 'never used' group.

To summarise, of the total 16 initiatives investigated:

- 10 initiatives each received greater than 80% support within the 'never used' any drugs group.
- Nine initiatives each received greater than 80% support within the previous user but not in last 12-months group.
- Four initiatives (demerit points, random roadside testing, licence suspension and regular monitoring of known offenders via testing) received over 80% support within the recent 'any drug' use group.
- Within the specific drug use groups of recent users (i.e., cannabis, MA/AMP substances and ecstasy), no initiatives received greater than 80% support (i.e., agreement).

Of interest were those initiatives with a high level of 'disagreement', defined as more than 30% of respondents indicating that they 'disagreed' with the countermeasure. While none of the countermeasures rated by the never-used group reached a 30% 'disagree' level, the 'previous user' group rated e-therapy in this way. Among cannabis and ecstasy users, three initiatives met this criterion, whilst the MA/AMP substance use group rated seven initiatives in this way.

The findings also indicate that the number of initiatives to address drug-driving and the associated level of support was lower among individuals reporting recent drug use compared to those that used drugs previously (but not in the last 12 months) or ever.

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TABLE 4.28 LEVEL OF SUPPORT INDICATED FOR DIFFERENT COUNTERMEASURES (%)

Counter-measure	Recent drug use (within the last 12 months)								Previous drug use (not within the last 12 months) (n = 384)		No drug use ever (excluding alcohol) (n = 1053)	
	Any drug (n = 415)		Cannabis (n = 175)		MA / AMP substances (n = 37)		Ecstasy (n = 64)					
	Dis-agree (%)	Agree (%)	Dis-agree (%)	Agree (%)	Dis-agree (%)	Agree (%)	Dis-agree (%)	Agree (%)	Dis-agree (%)	Agree (%)	Dis-agree (%)	Agree (%)
Financial penalties / fines	15.9	73.7	22.3	64.6	37.8	45.9	20.3	57.8	8.1	83.9	5.9	84.4
Demerit points	7.0	83.4	10.9	78.3	8.1	70.3	9.4	78.1	5.7	88.5	4.1	88.8
Double demerit points	19.8	67.5	29.1	57.7	43.2	35.1	32.8	50.0	10.7	78.9	7.3	82.9
Random roadside testing	5.3	88.2	9.1	79.4	10.8	75.7	12.5	75.0	1.3	94.5	1.8	92.5
Licence suspension	7.2	86.5	12.0	77.1	18.9	67.6	12.5	79.7	2.1	91.9	2.8	91.4
Licence cancellation	17.6	75.9	26.3	64.6	37.8	56.8	28.1	65.6	6.3	85.7	4.7	87.3
Vehicle impoundment	12.8	77.8	21.1	66.9	35.1	54.1	29.7	57.8	5.7	87.5	5.0	86.6
Regular monitoring of known offenders via testing	7.5	86.3	14.3	78.9	18.9	75.7	14.1	75.0	3.6	88.3	3.4	91.1
Regular monitoring of known offenders via bracelet	22.4	64.3	32.6	52.6	35.1	45.9	35.9	45.3	18.2	68.5	9.6	78.9
Education programs	7.7	75.9	12.0	72.6	13.5	75.7	6.3	75.0	5.2	81.8	5.6	81.2
Telephone counselling	26.3	49.6	24.6	49.7	35.1	45.9	26.6	48.4	23.7	46.4	23.0	47.4
Online program (e-therapy)	31.3	45.3	32.6	42.3	29.7	43.2	28.1	51.6	31.8	38.8	26.2	44.3
Rehabilitation program	6.0	76.6	9.1	71.4	10.8	73.0	9.4	73.4	5.5	79.4	6.1	78.4
Therapeutic-justice model	6.7	75.4	10.3	69.1	10.8	67.6	9.4	71.9	5.5	83.1	5.9	81.3
Community service	15.7	63.6	18.3	55.4	8.1	59.5	15.6	65.6	14.8	66.7	14.1	67.7
Imprisonment	27.7	56.4	35.4	48.0	37.8	51.4	45.3	40.6	19.0	63.0	12.0	72.9

†, percent disagreement / agreement

4.7 SUMMARY

This chapter set out to document the magnitude of drug-use and drug-driving in the Victorian population. In addition, knowledge of the effects of alcohol and other drugs, as well as motivations for and attitudes toward drug-driving were examined. A particular focus was placed on understanding the perceived risk of detection by police, crash risk, perceived impairment and perceived danger whilst driving after use of alcohol and other drugs.

A key finding was that users of cannabis, ecstasy and Ice held quite a different view with respect to the danger associated with drug-driving, the level of impairment and associated crash risk compared to non-users. As well, the perception of being caught by police was relatively low.

Analysis of the perceived effectiveness of countermeasures in preventing own future drug-driving behaviour and that of others was assessed, as was the level of support for these. In support of the current enforcement regime in Victoria, a high proportion of respondents supported roadside testing. Penalties including fines and licence suspension were also strongly supported. Of note, the monitoring of known offenders received a high degree of support, whilst vehicle impoundment was viewed to be a highly effective countermeasure. Countermeasure support did however differ for drug-use groups, and in general, were supported more strongly by non-drug users.

In contrast to all other groups, the Ice user group had a unique pattern of support for the listed countermeasures. The most supported countermeasures by this group were licence cancellation, regular monitoring of known offenders via testing, and vehicle impoundment. A large proportion of these respondents indicated that they 'neither agree nor disagree' with a number of the countermeasures, suggesting they are more resistant to any measure aimed at mitigating their drug-driving behaviour. Consequently, a more nuanced approach is likely be needed to address the incidence of drug-driving by this cohort of drivers.

To conclude, the findings presented in this chapter highlight strong support for a range of measures designed to address drug-driving behaviour. The findings suggest that using a number of approaches, ranging from purely sanction-based models through to a therapeutic justice model, will be necessary to properly address drug-driving over the long term.

5 CONCLUSIONS

5.1 SUMMARY OF FINDINGS

The present research aimed to gain an in-depth understanding of drug use patterns, motivations underpinning drug-driving and attitudes towards drug-driving in Victoria, Australia. The overarching goal was to better understand opportunities to implement countermeasures aimed at reducing the adverse impact of drug-driving on the safety of Victorian roads. This report documents two components of a broader program, these being stakeholder engagement and a community-based survey.

Below is a summary of the key findings:

- At present, there are a range of different drugs being used in the Victorian community, with the types of drugs being used continuing to change. This includes the emergence and evolution of synthetic-based drugs.
- Different drug user groups exist, including those who can be described as recreational users, high-functioning users, and dependent users. These drug user groups (both with respect to type of drug and frequency of use) differ with respect to how their drug-driving behaviour can be addressed.
- The main motivations for drug-driving were convenience and a lack of alternative transport, particularly in the regional areas. Only a very small subgroup of drug-drivers is motivated to engage in drug-driving for "fun"; the majority of users report that drug-driving is a consequence of needing to meet everyday demands and to simply get from one destination to another. This was identified in both the stakeholder engagement and the community-based survey part of the study.
- A significant proportion of respondents in the survey indicated having driven whilst impaired, and/or within three hours of taking a substance. These proportions are consistent with general population estimates. There are different patterns of behaviour evident between the drug-user groups, with drug-driving being especially prominent in the meth/amphetamine group, followed by those that use cannabis.
- Community knowledge about the different types of drugs, and their adverse consequences were explored. Whilst the self-rated level of knowledge of individual drugs was mixed, driving with high levels of alcohol (BAC) and after using Ice use were perceived to be the most dangerous.
- Respondents who reported having used a drug(s) previously and drug-driven rated risks lower than non-drug users. For instance, drug-driving after cannabis use was perceived to be less risky (lower ratings across perceived level of danger, impairment and crash risk) compared to driving following the use of meth/amphetamines and high range drink-driving. The level of detection was perceived to be low for drug-driving, particularly among drug-user groups.
- When considering the most significant concerns associated with drink- and drug-driving, the prospect of injuring another person rated the highest.
- Across the three main drug user groups of interest (cannabis, ecstasy and Ice), vehicle impoundment was perceived to be one of the most effective countermeasures for preventing drug-driving in both self, and others. Other countermeasures identified to be effective included alcohol and drug rehabilitation programs, licence-related sanctions or penalties and being stopped by police.
- With respect to the general community, random roadside testing, licence suspension and regular monitoring of known offenders via testing were the most highly supported countermeasures.
- It was apparent that the Ice user group represents a unique cohort of drug-drivers. This group indicated less support for a range of countermeasures aimed at reducing drug-driving compared to other drug user groups and members of the community more generally.

Observations that can be made based on responses of recent users in relation to the perceived effectiveness for, and then support for particular countermeasures are:

- The meth/amphetamines group tend to state that measures such as vehicle impoundment and a Community Corrections Order are likely to be most effective, but at the same time, offer relatively little support for these. This links in with why they use the vehicle in the first place. It appears to be the case that whilst recognising that an incapacitation option is likely to be of the most value, they are personally averse to supporting this on the basis of need for the vehicle and the impact removal of the vehicle would have. In addition, it may be the case that for some of these individuals, their motivation to change their drug-driving behaviour, and more broadly, the readiness to address their underlying drug use may be absent. Whilst the responses from this cohort appear to favour purely punitive approaches as being more effective, it is clear that alone such approaches will be inadequate in preventing their future drug-drive behaviour. It is imperative that other health-based approaches be included, such as behaviour change and rehabilitation programs, which also received high support from this cohort.

- Whilst the 'recent use' cannabis drug user group also indicated that they felt vehicle impoundment would be an effective countermeasure. This group also gave a high level of support for both behaviour change and rehabilitation programs that address their drug use more broadly; it could be expected that this would in turn reduce their likelihood of continuing to engage in drug-driving behaviour. Having said this, their level of support for the loss of demerit points, licence suspension, the monitoring of known offenders, and roadside testing programs was also high.
- It is of interest that the provision of information concerning the effect of drugs rated the lowest in terms of its effectiveness in preventing drug-driving; this view was particularly evident among recent users.
- The level of support in the community for roadside drug testing was high, but more so among non-users and past users (both in excess of 90%) than recent users (75% to 79%, depending on drug).
- A pattern emerged among recent drug users that countermeasures that they deemed to be most effective were ones they did not necessarily strongly support. This discrepancy is likely to be driven by personal impacts to themselves. Interestingly, this group was generally more supportive of combined sanction and health-based post-offender requirements, than punitive sanction-only approaches.
- Among non-users, both sanction-based and therapeutic justice models were strongly supported, however less support was given for telephone and online / e-therapy across all comparison groups. This may be due to these two approaches being seen to be easy to complete, avoid, and/or be thought of as being ineffective on their own. Another potential reason for these measures receiving relatively little support and being given low effectiveness ratings may be that the understanding of these interventions is limited.

5.2 IMPLICATIONS FOR ADDRESSING DRUG-DRIVING IN VICTORIA

These findings suggest that addressing drug-driving is complex. Given the heterogeneity of the drug-driving group as a whole, careful consideration of countermeasures is required. It is suggested here that a more nuanced approach based on drug user group needs will be required to successfully reduce drug-driving on Victorian roads.

It is strongly evident that continuing to maintain the perception that one may be caught for drug-driving is essential to ensure that a deterrence effect is maintained, and indeed, this needs to be lifted from its present low perceived state. This can be achieved by continuing to operate random roadside testing, and indeed there is a very high level of community support to do so. Expansion of the current program combined with community education on the effect of drugs on driving is therefore recommended.

While all drug-user groups cited support for roadside drug testing, differences emerged in the perception of the efficacy of roadside testing and sanction-based approaches in preventing future drug-driving episodes.

When considering which countermeasures to implement, it is important to consider both magnitude of the crash risk and size of the drug-driving population. On this point, a lower proportion of users of methamphetamine and related substances stated they would be deterred from driving than did the cannabis group. This is especially important given the findings of the companion *Literature Review (*Mulvihill et al., 2020*)* that highlighted the comparatively lower crash risk associated with cannabis use (OR: 1.5-2.0) compared to the very high crash risk associated with methamphetamine use (OR: >5). In considering this, the size of the user-group is also vital to consider. The findings presented here demonstrate that cannabis is widely used (31.8% lifetime use; 9.4% use within last 12-months), while methamphetamine and related drugs is used by considerably fewer people (3.4% lifetime use; approximately 1% use within last 12-months).

Of concern was the finding that users report having driven while they suspected they were impaired specific drugs and also within 3-hours of use. These drivers present as a key road safety risk.

For those engaging in repeated drug-driving behaviour and based on the combined findings of the *Research Program,* it is suggested here that traditional sanction-based approaches are likely to be less efficacious for users of Ice than they are for users of cannabis, ecstasy and consumers of alcohol.

Discussions with stakeholders and other inputs from the *Research Program* suggest that a shift from the traditional punitive approach towards those caught for drug-driving is required. It has been suggested that a more holistic and empowering rehabilitation approach will likely be more effective, particularly for those using methamphetamine and most likely for polydrug users. Indeed, users of these substances highlighted the value of these interventions, noting also that the physical removal of the vehicle was also supported; this highlights a degree of self-awareness in what might be required to prevent them from continuing to drive.

Given the findings highlighted here, it is likely that a combination of both sanction-based and therapeutic intervention options will be necessary to deter the behaviour and to address the underlying causes of drug-driving behaviour. The ability to address the underlying factors that ultimately lead to drug-driving behaviour will likely have benefits in reducing recidivism moving forward.

To conclude, it is considered that in order to successfully address drug-driving behaviour in the longer term, the ability to assess offender needs and match these needs to appropriate post-offence and rehabilitation pathways will be essential. Further work on what these pathways ought to look like needs to be carefully performed.

5.3 LIMITATIONS

While the survey was designed to be representative of the population based on age, sex, and location of residence, the extent to which the sample is matched on a range of other potentially influential factors that may be associated with drug-use and driving under the influence of alcohol and/or drugs is unknown. The fact that the respondent sample was well match on key demographics and residential location in Victoria, as well as its large sample size, lends credence to the findings being robust.

The findings presented in this report do stem from self-report behaviours concerning alcohol and drug use, as well as road safety outcomes such as being involved in a crash and offences. Given the nature of this content, there is a possibility that survey participant responses may, in part, reflect social desirability bias (af Wåhlberg, Dorn, & Kline, 2010; King and Bruner, 1999, Nederhof, 1985). In such instances where the outcomes might be perceived to have a negative valence, the tendency to put oneself in a positive light is apparent. To overcome this, participants were assured of confidentiality and assured that systems had been put in place to separate personal details required for reimbursement (via a $30 or $50 Gift voucher) and for the final prize draw. Participants were also able to complete the survey in private across numerous technology platforms.

The offer of a gift voucher for time spent on the survey may also have introduced a bias to the type of potential participant(s). The gift cards, while offered as reimbursement for time, could be seen as an incentive to participate, however the time commitment to complete the survey was significant. The time to complete Part A of the survey was approximately 30 – 45 minutes ($30 voucher), with the addition of Part B (required for the $50 voucher) taking a further 20 – 30 minutes. The analysis reports on participants completing Part A of the survey.

Prior to the analysis, there was significant data cleaning to ensure respondents were residents of Victoria and met the age-sex-residential location quota criteria. Further validation steps included assessment of 'straight-line' responses, survey completion time, and required responses for items. Given these protections, there is confidence in the data obtained, which was obtained from a broad cross section of Victorians.

The survey was advertised through multiple media platforms, with weight given to social media including LinkedIn, Facebook and Twitter, as well as the Monash University Accident Research Centre (MUARC) website. VicRoads also included survey links in its social media outlets. A decision was made to use these platforms to generate interest quickly and across a large geographic area at minimal cost. Social media is now widely used, with 83% of Victorians accessing the internet daily with 75% accessing social media platforms of which Facebook was most common (94%) (Sensis, 2017). Age differences in internet and social media use do exist, introducing the potential for respondent bias. For example, it has been reported that one-third of persons 50-64 years of age do not access social networking sites increasing to 53% of those over 65 years, with this being less than 5% for persons under 40 (Sensis, 2017). Similar findings on internet and social media use are reported elsewhere (e.g., ABS, 2018; Statistica, 2018). This differential internet use was evident in the limited number of responses obtained from persons aged 70 years and older, necessitating the use of the Qualtrics Online panel to boost the sample size in these older age groups; on this point, assessment of the responses gathered among the older age group were similar. To further address this, the survey was available in hard-copy form and sent to 11 respondents.

Given the supplementation of the community sample with respondents from an on-line panel, it is also acknowledged that emerging evidence suggests that the use of online panels for surveys is associated with non-response bias and coverage bias (that is, reach). This was seen in a study in the Netherlands in relation to drug use with the study authors noting the implications for obtaining population-based estimates of substance use, relative to phone interviews (Spijkerman et. al., 2009). This guided the decision to advertise the survey broadly in the first instance and introduce a range of controls in an effort to maximise the reach of the survey and to mitigate the potential for bias.

Notwithstanding these limitations, we have confidence that the data presented here provides a robust indication of drug use patterns and the inclination to drive a vehicle, as well as attitudes towards countermeasures and how these might impact behaviours. This confidence stems from the survey design process, seeking a large sample of Victorians, and extensive error checking and data validation. With an estimated 4.825 million Victorians 18 years of age and older and a sample size of 1852, the margin of error is estimated to be +/-2.28 (95 confidence).

5.4 FUTURE RESEARCH

A number of avenues exist for further exploration of the survey data obtained and to explore more deeply specific themes. These are noted briefly below.

Exploring profile of polydrug users and their attitudes towards use, perceived impairment and likely effectiveness of countermeasures

The data highlights high rates of polydrug use. Further analysis such as Latent Profile Analysis and/or Bayesian analysis could be used to examine the characteristics of these users, the pattern of substances used and their attitudes toward impairment. It is likely that users of multiple illicit substances and off-label use or abuse of selected prescription medications will present as the most challenging group(s) from a road safety management perspective.

Exploring the disconnect between self-reported knowledge, perceived level of danger and impairment while driving

The findings highlight marked differences in the self-reported knowledge of different drug types, with more than half of the sample stating they 'knew nothing' or 'very little' about specific substances. Half of all respondents stated they have 'some knowledge' of cannabis and most had that same level of knowledge for alcohol. Differences did however emerge in how these substances were rated for their impairing effect and crash risk. This is an interesting outcome and highlights an opportunity to better inform drivers of risks associated with use of both illicit drugs but also opioids and benzodiazepines given the comparatively high rate of 'don't know' responses. Research documenting the effects of specific substances on safe driving would be of benefit here. Indeed, improved knowledge of the effect of both illicit substances and prescription medications on driving among the general community would likely have a supporting effect on efforts to introduce a range of countermeasures, particularly non-traditional health-based approaches to address drug-driving.

Examination of patterns of offending and likely impacts of specific drug-driving countermeasures, sanctions and interventions on specific driver cohorts

The findings highlight differences in attitudes of the likely efficacy of roadside drug testing in preventing future drug-driving episodes. To better calibrate the current Victorian drug-testing regime and to better estimate the likely benefits of increased testing, an assessment of the current program is recommended, with consideration given to specific drug-user groups.

Related to this, there is a need to examine patterns of offending from a broader perspective to better characterise the characteristics of drug-drivers. This includes the relationship between offending more broadly and that specific to road offences. This is important in documenting recidivism, but also the likely effectiveness of sanctions and interventions for specific drug-driving groups.

Exploring inter-relationships between health state, illicit drug use and driving

Discussions with key stakeholders as part of this project and knowledge gained from the companion *Literature Review* (Mulvihill et al., 2020) highlighted the likely negative impacts of co-morbid health problems on driving and the likely efficacy of licence sanctions. This includes mental health concerns, use and abuse of prescription medications and illicit polydrug use. Part B of the survey included psychological assessment tools including the Depression and Anxiety Scale (DASS), the Alcohol Use Disorders Identification Tool (AUDIT), health-service use and a series of items relating to impulsivity, aggression and a range of road safety issues (i.e., offence type, crashes). Using this data to examine the inter-relationships between health state, illicit drug use and driving would be invaluable. This would offer new insights into determinants of these drug-driving behaviours and other behaviours impacting road safety.

Other opportunities to explore these issues include the analysis of fatality and serious injury crashes in collaboration with Victoria Police Major Collision Unit, the Victorian Institute of Forensic Medicine and the Coroners Court, as well as linked health service use data and crashes.

Exploring post-offence management pathways to manage drug-drivers

A key challenge moving forward in managing drug-drivers in Victoria is post-offence management. The findings here highlight a range of different perceptions towards a range of sanctions and interventions across drug-user groups. With historical knowledge of the drug-driving problem in Victoria, insights motivations for driving following substance use, and reportedly high rates of repeat offending, it can be suggested alternative and/or complementary health-based approaches are required to manage drug-driving in Victoria.

The question of what management options exist and how to best stream drink-driving and drug-driving offenders is a very significant one. Indeed, to understand gaps, it is recommended that current enforcement and post-offence practice in Victoria and Australia be defined, followed by a review of post-offence practice and programs in international jurisdictions where innovative approaches to managing drug-drivers have recently emerged. This is especially important in the context of increased roadside drug testing of drivers, with a positive result being a principal point of contact between drug-positive drivers, the police and the criminal justice system. It will become increasingly important to implement systems that are both efficacious in preventing future drug-driving episodes among those already detected as well as being efficient. The identification of these pathways represents the next step in this *Research Program*.

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APPENDIX A DESCRIPTION OF SAMPLING FRAME

The community survey was designed with a goal sample size of 2000 respondents. At the outset, it was considered important that the survey be completed by a representative sample of all Victorians. To this end, a sample frame was established with reference to the age-sex distribution of the Victorian population, with location of residence being an important parameter.

To establish the sampling frame, the following parameters were used:

1. Location of residence

- Defined by the Australian Bureau of Statistics *Statistical Areas Level 4 (highest level)*
- See website: http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by20Subject/1270.0.55.001~July202016~Main20Features~Statistical20Area20Level20420(SA4)~10016
- Victoria Mesh Blocks ASGS Edition 2016 in .csv Format
- Statistical Area Level 4 (SA4) ASGS Edition 2016 in .csv Format
- Victoria Mesh Blocks ASGS Ed 2016 Digital Boundaries in ESRI Shapefile Format
- Statistical Area Level 4 (SA4) ASGS Ed 2016 Digital Boundaries in ESRI Shapefile Format

*** To ensure coverage and understanding of suburbs / postcodes,** a link was created between the POA (postal area) and SA4 / 3 / 2 codes using the MESH Block code. This is important as the survey is collecting postcode of residence (as well as age / sex); hence, syntax will be required to define postcodes into the SA4 codes, to ensure representative survey.

POA sourced from: 1270.0.55.003 - Australian Statistical Geography Standard (ASGS): Volume 3 - Non-ABS Structures, July 2016; POSTAL AREAS (POAs): Postal Areas ASGS Edition 2016 in .csv Format; Postal Areas ASGS Ed 2016 Digital Boundaries in ESRI Shapefile Format

W: http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1270.0.55.003July202016?OpenDocument

SA4_CODE_ 2016	SA4_NAME_ 2016	SA3_Names (detail)	GCCSA_CODE_ 2016	GCCSA_ NAME_2016
Regional Victoria				
215	North West Victoria	**Grampians** (Wimmera, Horsham, Ararat, Stawell, St Arnaud, Yarriambiack, West Wimmera, Nhill); **Mildura; Murray River - Swan Hill**	2RVIC	Rest of Vic.
216	Shepparton	**Campaspe; Moira; Shepparton**	2RVIC	Rest of Vic.
202	Bendigo	**Bendigo; Heathcote - Castlemaine - Kyneton; Loddon - Elmore**	2RVIC	Rest of Vic.
201	Ballarat	**Ballarat; Creswick - Daylesford - Ballan; Maryborough - Pyrenees**	2RVIC	Rest of Vic.
203	Geelong	**Barwon (West**, i.e., Bannockburn, Winchelsea, Golden Plains - South); **Geelong; Surf Coast - Bellarine Peninsula**	2RVIC	Rest of Vic.
217	Warrnambool and South West	**Warrnambool; Glenelg - Southern Grampians; Colac - Corangamite**	2RVIC	Rest of Vic.
204	Hume	**Upper Goulburn Valley; Wangaratta - Benalla; Wodonga - Alpine**	2RVIC	Rest of Vic.
205	Latrobe - Gippsland	**Baw Baw; Gippsland (East,** includes Bruthen - Omeo; Paynesville; Lake King, Alps-east; Orbost); **Gippsland (South West** includes French Island; Phillip Island; Wonthaggi - Inverloch; Korumburra; Leongatha; Foster); **Latrobe Valley; Wellington**	2RVIC	Rest of Vic.

SA4_CODE_ 2016	SA4_NAME_ 2016	SA3_NAMES (DETAIL)	GCCSA_CODE_ 2016	GCCSA_ NAME _2016
Greater Melbourne				
214	Mornington Peninsula	**Frankston; Mornington Peninsula**	2GMEL	Greater Melbourne
206	Melbourne - Inner	**Brunswick - Coburg; Darebin (South)/Northcote; Essendon; Melbourne City** (CBD, West Melbourne, East Melbourne, Docklands, Southbank, Carlton, Parkville, North Melbourne, Kensington); **Port Phillip; Stonnington (West**, includes: South Yarra, Toorak, Prahran, Windsor, Armadale); **Yarra** (Carlton North - Princes Hill, Fitzroy North, Richmond, Yarra North)	2GMEL	Greater Melbourne
207	Melbourne - Inner East	**Boroondara; Manningham (West,** includes Bulleen, Templestowe, Doncaster, Doncaster East); **Whitehorse** (West, includes: Box Hill, Box Hill North, Burwood, Burwood East, Blackburn South)	2GMEL	Greater Melbourne
208	Melbourne - Inner South	**Bayside; Glen Eira; Kingston; Stonnington (East, i**ncludes Malvern - Glen Iris; Malvern East)	2GMEL	Greater Melbourne
209	Melbourne - North East	**Banyule; Darebin (North**, includes Reservoir West, Preston West, Kingsbury); **Nillumbik - Kinglake; Whittlesea - Wallan**	2GMEL	Greater Melbourne
210	Melbourne - North West	**Keilor; Macedon Ranges; Moreland (North,** includes Pascoe Vale; Fawkner); **Sunbury; Tullamarine - Broadmeadows**	2GMEL	Greater Melbourne
211	Melbourne - Outer East	**Knox; Manningham (East,** includes Warrandyte - Wonga Park); **Maroondah; Whitehorse (East** includes Nunawading, Mitcham, Vermont South); **Yarra Ranges**	2GMEL	Greater Melbourne
212	Melbourne - South East	**Cardinia; Casey; Dandenong; Monash**	2GMEL	Greater Melbourne
213	Melbourne - West	**Brimbank; Hobsons Bay; Maribyrnong; Melton - Bacchus Marsh; Wyndham**	2GMEL	Greater Melbourne
Other location				
297	Migratory - Offshore - Shipping (Vic.)		29799	Migratory - Offshore - Shipping (Vic.)
299	No usual address (Vic.)		29499	No usual address (Vic.)

2. Age and sex profile of Victoria, by ABS areas

- ABS reference: 3235.0 - Population by Age and Sex, Regions of Australia, 2016; Population Estimates by Age and Sex, Regions of Victoria (ASGS 2016), 2006 and 2016. http://www.abs.gov.au/ausstats/abs@.nsf/mf/3235.0
- This provides the number of persons by age category and sex, for each of the statistical areas (SA4)
- We note that the ABS age is 15-19 years, so need to estimate the percent that are 18-19 years; to do this, we use the Population – ERP, for Victoria (2016) - http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3101.0Mar202017
- 18–19-year-old males represent 42.55 of males 15-19; likewise, 42.48 of females aged 15-19 were 18-19, according to the ERP file for 2016 for Victoria (note: 18-19 population counts are not available for SA4)

3. Establishing the sampling frame

- Using number of persons by age, sex, and SA4 location of residence, the percent for males and females was separately derived using the total number of males and females in Victoria, aged 18+. This means males sum to 100, as does that for females.
- To establish actual sample numbers for 2000 persons, we derive the male and female in the Victorian population
- We know that there were:
    - 2,360,644 males and 2,464,496 females (total: 4,825,140), aged 18+
        - Hence, 48.924 were male; 51.076 female
    - 3,056,434 males and 3,122,815 females (total: 6,179,249), AGED 0-85+
- With a target of 2000 respondents, a target of 978 males was set (0.48924*2000), and 1021 females (0.51076*2000)
- We then apply the target number of males (978) and females (1021) to the derived male and female population percentages; this gives us the target number of persons in each ABS SA-4 location (see below)

4. Application to Qualtrics Survey Platform

- Using number of persons by age, sex, and SA4 location of residence, quota bins were defined. In the survey, once full, these 'bins' were closed to future potential respondents.

5. Recruitment via Qualtrics Survey Services

- Assessment of survey completion numbers highlighted a gap in respondents aged 70 years and older. Due to this, Qualtrics Survey Services were used to obtain the additional respondents of this age, according to sex and location of residence profile.

6. Paper-based survey

- The research team permitted the manual completion of the survey. A paper-and-pen version was built, with data entered by the research team.

7. Data cleaning and database build

- Extensive data cleaning was undertaken. This involved aligning multiple age, sex and postcode variables, with metadata also used to confirm respondent location.
- Data across the three completion methods were joined to create a single database.

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Further information

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