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A profile of designated drivers and the people who use them: A survey of two provincial Queensland cities

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Abstract

This paper reports the findings of a survey that was conducted in two provincial Queensland cities as part of an evaluation of a trial designated driver program. It provides a profile of designated drivers and those who use them; using data from the baseline questionnaire. The sample consisted of 405 individuals surveyed in 16 drinking venues in both cities (approximately 90% response rate). The participants were asked about their knowledge and use of designated driver, drinking behaviour, reported drink driving behaviour and demographic characteristics. There were 205 males (50.6%) and 200 females (49.4%) in the sample. The majority were aged under 30 years of age (63.5%). Around 15% of participants had been a designated driver in the last three months, with 70% having used a designated driver in the last three months. Almost 14% of participants indicated that they were a designated driver on the night of interview, with almost one quarter of participants using a designated driver on the night of interview. Those who indicated that they were a designated driver on the night of the survey tended to be older, less likely to have reported drink driving, and consumed less alcohol in an average week than those who were not acting as designated drivers. Similar differences were found between those who had been a designated driver at least once before and those who had never been a designated driver. The results of the study have important implications for the design of designated driver programs and associated publicity campaigns. Limitations and other implications of the results are also discussed.

Introduction

Drink driving is a major concern for road safety. The consumption of alcohol has been shown to adversely affect many of the skills required for safe driving (Moskowitz & Robinson, 1988 (1); Ogden & Moskowitz, 2004 (2)). Alcohol has also been shown to increase the risk of being involved in a crash, with drivers who drink having a crash risk (depending on their blood alcohol concentration (BAC)) anywhere between 1.5 and 25 times that of sober drivers (Ogden & Moskowitz, 2004 (2)).

Due to the serious nature of the drink driving problem, a variety of countermeasures have been implemented around the world, including:

- penalties and sanctions (e.g., licence loss, fines);
- enforcement (e.g., Random Breath Testing (RBT));
- rehabilitation programs (e.g., Under the Limit¹);
- public education programs (e.g., mass media campaigns); and
- community based programs (e.g., designated driver).

¹ Under the Limit is a community based drink driving rehabilitation program in Queensland which was developed by CARRS-Q and administered through the courts with assistance from the Department of Community Corrections and TAFE.

These countermeasures have met with varying levels of success, but together have led to a wholesale reduction in alcohol related crashes in Queensland and around the world (Hemel, Carseldine, & Kearns, 1988 (3); Watson & Freeman, 2007 (4)). Despite these reductions however, drink driving continues to be a serious problem with approximately 38% of fatal crashes in Queensland involving alcohol and/or drugs in 2003 (Queensland Transport, 2004 (5)).

It has been suggested that if it is understood why people drink and drive, countermeasures can be better designed to prevent it from occurring. Research into the factors contributing to drink driving has shown that it is a complex problem which requires a variety of different approaches to be taken in its prevention (Shults, et al, 2001 (6)). Factors suggested to influence drink driving include:

- attitudes toward drink driving (both the individual and their social group);
- personal factors (e.g., alcohol dependence; Morrison, Begg, & Langley, 2002 (7));
- deterrence (fear of getting caught and punished, the experience of avoiding punishment (e.g., Watson & Freeman, 2007 (4)));
- knowledge (e.g., the effects of alcohol on safe driving); and
- situational factors (e.g., transport availability; Morrison, Begg, & Langley, 2002 (7)).

The general aim of designated driver programs is to reduce the overall level of drink driving by encouraging potential drivers to travel with a driver who has abstained from (or at least limited) consuming alcohol. More particularly, the primary target group for these programs are those potential drivers who need to travel to and from public drinking venues. While the research literature does not confirm a specific best practice model, it does suggest that designated driver programs should incorporate the following elements:

- public education to support the program, addressing the following key messages:
 - choose a designated driver prior to drinking,
 - the designated driver should stay under legal limit, and
 - the designated driver drives passengers home safely.
- involvement of key stakeholders, including motivated licensed premises; and
- systematic management and monitoring of the program (Nielson & Watson, submitted (8)).

In 2006/7, the Queensland Government Steering Committee developed a designated driver program named 'Skipper'. The 'Skipper' program is an in-premises program in which patrons agree to stay sober and drive their friends home in exchange for free soft drinks. In July 2007, 'Skipper' was implemented as a trial in Mackay (intervention area), supported by media (facilitated by Recording Artists, Actors, & Athletes Against Drink Driving - RADD) including radio and press as well as advertising in premises (e.g., posters). A total of 41 venues had agreed to participate in the program at the time the follow-up data collection was conducted.

An evaluation of this program is currently being conducted on this program (Watson & Nielson, in review (9)). This evaluation aims to provide a better understanding of whether designated driver programs are effective in reducing drink driving, as well as providing knowledge about the processes that facilitate and/or impede their effectiveness. This paper reports on the baseline results of this evaluation in order to assess the

characteristics of designated drivers and those who use them. It is thought that by better understanding these characteristics, the 'Skipper' program and other designated driver programs can be improved in terms of how they are developed, implemented and targeted.

Methods

For the evaluation, so as to establish whether the changes in the behaviour of the target group were actually due to the program of interest and not some other campaign or initiative it was essential to compare the before (pre) and after (post) behaviour of those exposed to the program (intervention area) with a similar group of people who were not exposed to the intervention (comparison area).

A survey was conducted in both the intervention and comparison areas prior to the implementation of the 'Skipper' program. Patrons were approached inside drinking venues and were asked if they were interested in participating in a brief survey about getting around after drinking. Prior to giving consent, participants were offered an information sheet giving details of the study, what participation entailed, confidentiality and withdrawal options. Verbal consent was then be obtained prior to the survey being conducted. On completion of the interview, participants were thanked for their time and given a movie voucher. The survey included demographic items and items relating to self-reported drink driving behaviour, awareness of designated driver programs, and preparedness and intentions to participate in designated driver. Basic demographic information (age and gender) were also recorded for those who declined participation.

Responses from the surveys were collated, coded and entered into SPSS 15. Descriptive statistics were generated for the relevant items (e.g., designated driver knowledge; designated driver participation and use; self-reported drink driving) and for demographic categories (including age and gender). Statistical comparisons were made between demographic categories; between the intervention and comparison areas; and between the designated driver participants (drivers and passengers) and non-participants.

The participants consisted of 202 individuals from eight representative drinking venues (pubs/taverns, nightclubs, small, large) in the intervention area and 203 individuals from eight representative drinking venues in the comparison area.

Of the 440 approached, 405 participated and 35 refused representing an overall response rate of 92%. There were no differences between participants and non-participants in the proportion of males and females, or proportion in each age group.

Results

No significant differences were found between the two areas on any of the key demographic or behavioural variables. Therefore all analysis will be presented for the combined samples (N=405).

Location and venue characteristics

Of the 405 participants across the two cities, the majority of were in large venues (67.4%) and in pubs/taverns (76.0%) when interviewed (see Table 1).

Table 1 Venue characteristics

Venue characteristic	Level	N	%
Size*	Small	132	32.6
	Large	273	67.4
Type	Pub/Tavern	97	76.0
	Nightclub	308	24.0

*The size of the venue was determined by its patron capacity as advised by the Office of Liquor, Gaming and Racing – Liquor Licensing Division.

Participant characteristics

Over three quarters of participants (77.7%) held open licences at the time of interview (18.1% provisional; 4.2% learner). The proportion of male to female was approximately equivalent (50.6% male; 49.4% female), with the majority of participants aged under 30 (63.5%) (see Table 2).

Almost all participants had access to a vehicle (96.8%), about three quarters worked full time (75.6%), and a majority (61.9%) lived less than 10 km from the venue in which they were interviewed (see Table 2).

Table 2 Demographic characteristics of participants

Participant characteristic	Level	N	%
Gender	Male	205	50.6
	Female	200	49.4
Age group	17-24	183	45.2
	25-29	74	18.3
	30-39	76	18.8
	40-49	47	11.6
	50-59	22	5.4
	60 and over	3	0.7
Licence type	Learner	17	4.2
	Provisional/restricted	73	18.1
	Open/full	314	77.5
	Missing	1	0.2

Employment status	Full-time	306	75.6
	Part-time	31	7.7
	Casual	30	7.4
	Student	14	3.5
	Unemployed	21	5.2
	Retired	3	0.7
Access to vehicle	Yes	392	96.8
	No	13	3.2
Distance from home	0-4km	125	30.9
	5-9km	125	30.9
	10-19km	94	23.2
	20-34km	30	7.4
	35+km	30	7.4

Travel plans

Participants most frequently reported travelling home as a passenger in a car (30.9%), however they also quite frequently travelled home via taxi (26.6% with others; 4.9% alone) on the night of the survey (see Table 3).

The decision to drink (27.2%) and convenience (26.9%) were the most common influences on travel choice (see Table 3). Most commonly participants reported travelling with a group of friends (40.5%) on the night of the survey, with the majority (52.2%) planning how they will get around after drinking '(nearly) all the time' (see Table 3).

Table 3 Travel plan items

Travel plan item	Level	N	%
Travelling home on night of the survey	Drove self in car	85	21.0
	Taxi (alone/partner)	20	4.9
	Taxi (with others)	108	26.7
	Walked	51	12.6
	Passenger in car	125	30.9
	Bus	5	1.2
	Rode bicycle	1	0.2
	Other	9	2.2
	Missing	1	0.2
Main influence on travel mode choice	Cost	22	5.4
	Convenience	109	26.9
	Safety	45	11.1
	No alternative	14	3.5

	Mood	4	1.0
	Decided to drink	110	27.2
	Distance	30	7.4
	Speed of travel	3	0.7
	Have friends do the same	17	4.2
	Access to designated driver	20	4.9
	Other commitments	8	2.0
	Other	13	3.2
	Missing	10	2.5
Who travelling with	Alone	56	13.8
	Friend (one)	74	18.3
	Friend (group)	164	40.5
	Partner	74	18.3
	Relative	25	6.2
	People from work	10	2.5
	Other	1	0.2
	Missing	1	0.2
Plan travel	Almost never	45	11.1
	Some of the time	29	7.2
	About half the time	9	2.2
	Most of the time	110	27.2
	Nearly all of the time	211	52.1
	Missing	1	0.2

Drink driving items

When asked about how many times they had driven a vehicle when they thought they may have been over the limit in the last three months, 78.5% responded “none”, 10.4% once, and 11.1% more than once. This is somewhat consistent with other Queensland-based studies (e.g., see Watson & Freeman, 2007). It is interesting to note that of those who had driven when they thought they may have been over the limit at least once in the last three months just over half (51.7%) had done it more than once.

Participants were slightly less likely to report that they had been a passenger of a vehicle when they believed the driver may have been over the limit in the last three months, with 81.4% responding “none”, 7.4% once, and 11.4% more than once. Again, it is interesting to note that more than half (60.5%) of those indicating that they had done this in the last three months had done it more than once.

Drinking behaviour

Based on self-reported alcohol consumption, about three quarters (287) of the participants could be classified as ‘low risk’² drinkers (according to NHMRC guidelines, 2001).

² Low risk = up to 18 standard drinks per week for males; up to 12 standard drinks per week females

Almost one quarter (92) could be classified as 'risky'³, while 2.3% (9) were considered 'high risk'⁴. The average number of reported standard drinks consumed in a week was 11 (SD=17.63). It should be noted that these guidelines are related to safe drinking levels from a health perspective and not related to levels of alcohol considered safe for driving. The majority of participants believed they could drink 2 or less drinks in an hour before it would affect their driving (69.4%). The average number of drinks reported in relation to this item was 2.2 (SD=1.57). Almost three quarters (282) of participants who responded, reported that they went out drinking less than 5 times in a month on average.

Designated driver items

Knowledge of designated driver

Almost all of the participants had heard of the term designated driver (98.5%). The most frequently stated sources for knowledge on designated driver were 'friends/family' (43.4% yes) and 'television' (38.6% yes). Quite a large proportion responded "yes" to the 'other' response, with the most commonly cited other source being "school". It should also be noted that around 10% stated that designated driver was a 'common term', that they hear "everywhere".

Designated driver-related behaviour

There were 55 (13.6%) participants that indicated they were a designated driver on the night of interview, while almost one quarter (97) indicated they were using a designated driver on the night. Of those using a designated driver, the majority were travelling with: a female designated driver (63.5%); one who was under 30 years old (60.4%); and one who was a friend to the participant (56.8%).

A large proportion of the sample (86.4%) had used a designated driver at least once before. Of these, 24.2% had not used one in the last three months, 16.7% had used one once, and 59.1% had used one more than once.

The majority of the participants (68.4%) indicated that their designated drivers "always" abstained from drinking, while 17.7% stated that they "always" drank alcohol, but stayed under the legal limit. Interestingly, 5.5% indicated that they drank alcohol and may have been over the limit "sometimes", "often", or "always". When the participants were asked to describe their drinking behaviour on the occasions they were a passenger of a designated driver, almost three quarters (N=257) reported that they drank the same as usual.

Over three quarters of the participants indicated that they had been a designated driver at some time in the past. Of those who had been a designated driver, 23.3% indicated they had not done so in the last three months, 14.2% had done it once in the last three months, and 0.2% more than once. The majority of participants (71.9%) indicated that while they were acting as a designated driver, they "always" abstained from drinking, while 17.1%

³ Risky = 19-70 standard drinks per week for males; 13-42 standard drinks per week for females

⁴ High risk = 71 or more standard drinks per week for male; 43 or more standard drinks per week for females

stated that they “always” drank alcohol, but made sure they were under the legal limit.

Beliefs regarding designated driver

Almost all of the participants either strongly agreed (84.7%) or agreed (6.2%) that the designated driver should be chosen before going out drinking. The majority of participants either strongly disagreed (39.6%) or disagreed (11.6%) that staying sober as a designated driver is difficult. However, it should be noted that almost one third agreed (10.9%) or strongly agreed (20.8%). Almost three quarters of the participants either agreed (9.2%) or strongly agreed (61.1%) that designated drivers should not drink any alcohol. Approximately three quarters of the participants agreed that being a designated driver is a lot of responsibility (14.6% “agree”; 63.6% “strongly agree”). Most commonly, participants were “neutral” (30.7%) to the idea that being a designated driver is rewarding. The vast majority of participants agreed (12.1% “agree”; 73.3% “strongly agree”) that their family/friends would approve of them being a designated driver. There was also a high level of agreement (6.2% “agree”; 83.4% “strongly agree”) that the decision to be a designated driver was entirely up to the participant. The vast majority of participants disagreed (8.9% “disagree”; 71.0% “strongly disagree”) with the statement “I feel under social pressure to drink alcohol (see Table 4).

Table 4 Beliefs about designated driver

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The designated driver should be chosen before going out drinking	1.5%	0.9%	6.9%	6.2%	84.7%
Staying sober as a designated driver is difficult	39.6%	11.6%	17.1%	10.9%	20.8%
The designated driver shouldn't drink any alcohol	5.0%	6.2%	18.6%	9.2%	61.1%
Being a designated driver is a lot of responsibility	6.7%	3.7%	11.4%	14.6%	63.6%
Being a designated driver is rewarding	22.3%	9.9%	30.7%	10.6%	26.5%
My friends/family would approve of me being a designated driver	3.5%	2.7%	8.4%	12.1%	73.3%
The decision to be a designated driver is entirely up to me	2.0%	1.2%	7.2%	6.2%	83.4%
I feel under social pressure to drink alcohol	71.0%	8.9%	12.6%	2.0%	5.4%

Designated driver-related behavioural intentions

Almost all of the participants indicated that in the next three months they were unlikely (7.4% “unlikely”; 78.5% “highly unlikely”) to drive when they think they may be over the limit. More than half of the participants indicated that they were “highly likely” (48.8%) or “likely” (16.6%) to be a passenger of a designated driver in the next three months. Slightly less than half responded that it would be likely (10.9% “likely”; 35.9% “highly likely”) that they would act as a designated driver in the next three months. It should be noted however that over a quarter of participants reported that it would be highly unlikely that they would act as a designated driver in the next three months. A large proportion of participants reported it as “highly unlikely” (73.3%) or “unlikely” (9.2%) that they would be a passenger of a vehicle when they believe the driver may be over the limit in the next three months. Responses varied when asked about the likelihood of catching public transport after drinking in the next three months. However, participants most commonly reported it as “highly unlikely” (46.8%). Approximately three quarters of participants reported it as either “likely” or “highly likely” that they would catch a taxi after drinking in the next three months. Participants’ responses to the likelihood of walking home after drinking in the next three months were mixed. About the same proportion of participants indicated that they were unlikely (5.2% “unlikely”; 38.1% “highly unlikely”) as likely (“likely” 9.4%; “highly likely” 36.6%) (see Table 5).

Table 5 Designated driver-related behavioural intentions

Item	Highly Unlikely	Unlikely	Equally unlikely/likely	Likely	Highly Likely
Drive when you think you are over the limit	78.5%	7.4%	8.7%	1.5%	4.0%
Be a passenger of a designated driver	10.9%	5.7%	18.1%	16.6%	48.8%
Act as a designated driver	26.7%	6.2%	20.3%	10.9%	35.9%
Be a passenger of a car when you believe the driver is over the limit	73.3%	9.2%	11.6%	2.7%	3.2%
Catch public transport	46.8%	5.2%	11.4%	7.9%	28.7%
Catch a taxi	8.7%	4.2%	11.4%	13.1%	62.6%
Walk	38.1%	5.2%	10.6%	9.4%	36.6%

Profile of designated drivers

Designated drivers on the night

The participants who indicated that they were acting as a designated driver on the night of the interview tended to be older [$\chi^2(5) = 25.41, p = .001$], with 32.8% of designated drivers being over 40 as opposed to only 15.4% of non-designated drivers.

Designated drivers on the night of the interview were significantly less likely to have reported driving when they may have been over the limit in the last three months (9.1%) than non-designated drivers (23.5%) [$\chi^2(1) = 5.84, p = .016$]. Designated drivers on the night of interview were also much less likely to have reported being a passenger of a ‘drink driver’⁵ (5.5%) than non-designated drivers (20.9%) [$\chi^2(1) = 7.44, p = .006$].

In terms of the drinking behaviour of those acting as designated drivers on the night of interview, they were more likely to be classified as ‘low risk’ (92.5%) than non-designated drivers (71.0%). There were no other significant differences in the profile of those who were acting as designated drivers on the night of interview and those who were not.

Designated drivers in general

Those who indicated that they had been a designated driver at least once in the past reported going out drinking less often (4 times/month) than non-designated drivers (7 times/month) [$F(1,386) = 20.25, p = .001$].

Designated drivers were less likely to report that they have been a ‘drink driver’ in the last three months (17.7%) [$\chi^2(1) = 11.34, p < .01$] than the non-designated drivers (34.0%). This pattern was similar for reported times being a passenger of a ‘drink driver’, with designated drivers being less likely to report engaging in this behaviour (16.5%) than non-designated drivers (26.6%) [$\chi^2(1) = 4.86, p < .05$].

There was a significant difference between designated drivers and non-designated drivers on their reported drinking behaviour [$\chi^2(2) = 25.96, p < .001$]. Specifically, a much higher proportion of designated drivers were categorised in the ‘low risk’ group (80.2%) than the non-designated drivers (53.3%).

Designated drivers differed from non-designated drivers on a number of belief based items.

- Designated drivers were more likely to “disagree”/“strongly disagree” that staying sober as a designated driver is difficult (55.9% vs. 35.6%) [$\chi^2(4) = 24.921, p < .001$].
- Non-designated drivers were more likely to “disagree”/“strongly disagree” that being a designated driver is rewarding (45.3% vs. 28.2%) [$\chi^2(4) = 11.187, p = .025$].
- Designated drivers were more likely than non-designated driver to “agree”/“strongly agree” that their family/friends would approve of them being a designated driver (89.1% vs. 73.1%) [$\chi^2(4) = 16.646, p = .002$].

⁵ This term is used to identify those who had indicated that they had driven or had been a passenger of a driver that may have been over the limit in the last 3 months, even though they were not charged with an offence and may have not actually been over the limit.

There were also differences between designated drivers and non-designated drivers on some of the intention items. Specifically, in comparison to non-designated drivers a greater proportion of designated drivers reported being:

- “highly unlikely” to drive while being over the limit in the next three months (89.4% vs. 74.2%) [$\chi^2(4) = 23.846, p < .001$];
- “highly unlikely” to be a passenger of driver that may be over the limit in the next 3 months (85.2% vs. 73.1%) [$\chi^2(4) = 13.534, p = .009$];
- and “highly likely” to act as a designated driver in the next three months (58.2% vs. 8.6%) [$\chi^2(4) = 145.092, p < .001$].

Profile of those who use designated drivers

There were only a few differences in the profiles of users and non-users of designated drivers. Firstly, those who had never used a designated driver were more likely to be older (over 30) than those who had used a designated driver at least once (49.1% vs. 34.6%) [$\chi^2(1) = 4.321, p = .038$]. Perhaps not surprisingly, a greater proportion of those who had used a designated driver at least once, reported being “highly likely” to be a passenger of a designated driver in the next three months (51.4% vs. 31.5%) [$\chi^2(4) = 43.606, p < .001$]. Users of designated drivers were also more likely to report being “likely”/“highly likely” to be a designated driver in the next three months (37.1% vs. 27.8%) [$\chi^2(4) = 16.595, p = .002$].

Discussion

The present research aimed to assess the characteristics of designated drivers and those who use them. It is thought that by better understanding the characteristics of these people, that designated driver programs, like ‘Skipper’ can be more effectively designed implemented and targeted.

The results indicate that designated driver is a relatively common concept, with almost all of the participants being aware of the term. There was also a large proportion of the sample that had used designated driver in some form, with almost 90% having participated as passengers and a smaller proportion (but still majority) having acted as a designated driver at some stage.

Most of the difference between designated drivers and non-designated drivers seem to be related to drinking behaviour. The only difference not related to drinking was that participants who indicated that they were acting as a designated driver on the night of the interview tended to be older than those who were not. People who responded being designated drivers on the night of the interview or at some time in the past were significantly less likely to have reported driving when they may have been over the limit in the last three months and to have reported being a passenger of a ‘drink driver’ than non-designated drivers. Designated drivers, both on the night of interview and ever, reported consuming less alcohol and going out drinking less often than non-designated drivers.

Designated drivers also differed from non-designated drivers on a number of attitudinal items. Designated drivers were more likely to disagree that staying sober as a designated driver is difficult. Alternatively, they were more likely to agree that being a designated driver is rewarding and that their family/friends would approve of them being a designated driver.

There were also differences between designated drivers and non-designated drivers in terms of their behavioural intention over the next three months. While the majority of both groups reported being unlikely to drink drive or be a passenger of a drink driver in the next three months, non-designated drivers reported a greater intention to engage in these behaviours than designated drivers. On the other hand, the designated drivers were more likely to report an intention to engage in designated driver behaviour in the next three months, both as passengers and as drivers.

There was little difference between those who had been passengers of designated drivers and those who had not except that passengers of designated drivers reported a greater intention to engage in designated driver behaviour in the future, both as passengers and drivers. However, a very large proportion of the sample had been a passenger of a designated driver at least once before. Therefore, a priority for future research in this area is to examine the differences between frequent and infrequent users.

Limitations

The limitations of this study should be borne in mind when interpreting the results. Participants were not randomly selected, however with the high participation rates biases relating to lack of random selection would have been minimised. There were also no significant differences between participants and non-participants on any demographic factors, which provides some further evidence of that the recruitment technique was successful in minimising bias.

Another potential limitation is that the accuracy of the self-reported data remains susceptible to self-reporting bias, especially responses that focus on past and future offending behaviours. Furthermore, it remains uncertain whether stated intentions, such as intending to drink and drive again in the three months, are effective predictors of future behaviours. However, there is no evidence that these potential biases would have affected designated drivers and non-designated drivers differentially. Therefore, the differences found between designated drivers and non-designated drivers are likely to remain valid.

The sample size was sufficient for maintaining the power of the statistical tests used, and this remained true for analyses at the sub-group level. There were no significant differences between the two sampling areas on any key demographics or behavioural variables. This provides evidence that the two areas are similar enough to be comparisons for each other in terms of the evaluation and allowed the researchers to conduct analyses for this paper on the combined larger sample. However, it is difficult to assess whether the results found here are unique to provincial towns. It is possible that drinking habits as well as drink driving and designated driver activity may vary by area, due to geographical

difference such as distance, as well as transport availability and cost. Further research involving a replication of this baseline study in other areas would be required to determine if the results found here are generalisable beyond these provincial communities.

Conclusion

The results of this study indicate suggest that there is already strong support and use of the designated driver concept in provincial Australian areas. However opportunities exist to further reinforce the behaviour through public education and venue-based programs like 'Skipper'. The main priorities for the future are:

- to implement and evaluate programs such as 'Skipper';
- to investigate the factors discouraging drivers from becoming designated drivers;
- to examine differences between frequent and non-frequent users of designated driver; and
- to examine other countermeasures that can be operated in a complementary manner with designated driver, e.g., courtesy buses.

Despite the limitations, the results of this study highlight some of the differences in the characteristics and behaviours of designated drivers and non-designated drivers. The results have important implications for the design of designated driver programs and associated publicity campaigns.

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