

Young adults' experience of responsible service practice in NSW: An update

Linda Scott¹, Neil Donnelly^{1,2}, Suzanne Poynton¹ and Don Weatherburn¹

1. NSW Bureau of Crime Statistics and Research

2. National Drug Research Institute, Curtin University of Technology

This bulletin presents results from research investigating whether the provision of responsible service of alcohol (RSA) initiatives by licensed premises staff in NSW has changed since 2002. This research involved repeating in 2006 a telephone survey originally conducted in 2002. A sample of 2,427 young adults were asked about their last drinking occasion at a licensed premises. This included whether or not they were showing any of five different signs of intoxication and, if so, whether they had received any of seven different RSA initiatives from licensed premises staff. On both survey occasions over half of the respondents who reported drinking at acute risk levels for alcohol-related harm reported that the last such occasion had occurred at a licensed premises. There was no change in the percentage of these respondents who reported showing at least one sign of intoxication in 2006 compared with 2002 (around 56 per cent), however there was a modest reduction in 2006 in the percentage who reported showing three or more signs (15 versus 19 per cent). There was a significant increase in the provision of responsible service practice to those who reported showing three or more signs of intoxication from 12 per cent in 2002 to 28 per cent in 2006. The majority of this more intoxicated group, however, still reported that they were continued to be served alcohol (54 per cent in 2006). No significant change was found between 2002 and 2006 in non-intoxicated patrons reporting having seen intoxicated patrons receive RSA interventions from licensed premises staff, though around one half did report seeing such RSA practice. This research suggests that since 2002 there has been some improvement in the provision of RSA practice to more intoxicated patrons at licensed premises in NSW. However, given that over one half of this more intoxicated group still report being continued alcohol service, it is critical that efforts to increase the provision of RSA practice by bar staff be continued.

INTRODUCTION

In New South Wales (NSW) it is an offence for licensed premises to serve alcohol to intoxicated persons. As reviewed in a previous Alcohol Studies Bulletin (Donnelly & Briscoe 2002), there is evidence that clearly shows that the service of alcohol to intoxicated patrons increases the likelihood of alcohol-related harms, such as violence and injury, occurring. One approach to dealing with this problem is to encourage more responsible service of alcohol (RSA). RSA training programs aim to equip

licensed premises staff with the skills to recognise signs of intoxication among patrons and, critically, to be able to refuse service to such patrons (Saltz 1986).

A review by Stockwell (2001) revealed that while initial demonstration projects in the 1980s showed promising results for RSA programs, attempts to implement such projects at the broader community level (both in Australia and in the United States) have generally been less successful. A telephone survey of over one thousand young adults conducted by the Bureau in NSW in 2002 provided findings consistent

with this conclusion. A large proportion of these young adults reported showing signs of intoxication while drinking at licensed premises but very few of those reporting these signs experienced any of the standard RSA responses that licensed premises staff are supposed to provide (Donnelly & Briscoe 2002).

Specifically, Donnelly and Briscoe (2002) found that around one half of those acute-risk drinkers surveyed reported their last place of drinking as a licensed premises. Of these, over one half reported showing one of the following five signs of intoxication: (1) slurred speech; (2) loud

or quarrelsome behaviour; (3) spilling drinks; (4) staggering or falling over and (5) loss of coordination. Almost one in five reported showing three or more of these signs. However, only around one in ten reported having received any RSA, with over half reporting that bar staff continued to serve them alcohol. Over half of the respondents who said they were not intoxicated when they last drank on licensed premises said they had seen other patrons who were intoxicated at the time. Only half of these respondents, however, reported seeing licensed premises staff intervening with these intoxicated patrons in some way (Donnelly & Briscoe 2002).

Since this survey was conducted in 2002, a range of initiatives have been undertaken by the NSW Government to encourage more responsible service of alcohol on licensed premises and reduce the prevalence of intoxication among patrons. In August 2003, the NSW Government convened an Alcohol Summit, which involved government agencies, alcohol industry representatives and community groups actively discussing how the harms associated with alcohol use could be minimised. Following this Summit, the NSW Government amended the liquor laws to require mandatory training for all licensed premises staff in an accredited RSA course. The timetable for this mandatory training required all licensees, managers and permanent serving staff to have completed their training by January 1st 2004, all casual serving staff by July 1st 2004 and all security personnel by January 1st 2005 (Department of Gaming and Racing 2003; New South Wales Government 2004).

Another initiative that had the potential to impact on RSA practice was the roll-out of the NSW Police Linking Project into the Sydney metropolitan area in late 2004. Prior to this, the Linking Project had only been operational in regional areas of NSW. As well as improving the flagging of crime incidents as alcohol-related, this project required police to record information about the last place of drinking of offenders. As a result of this initiative, police in Local Area

Commands are now able to link alcohol-related incidents to specific licensed premises (Wiggers et al. 2004). These premises receive routine reports from the police about alcohol-related incidents involving patrons at the premises and are sometimes given advice by police on how to avoid these incidents through better serving practices.

It is obviously important to determine whether these initiatives have led to an improvement in the provision of responsible alcohol service in NSW. The aim of this investigation, therefore, was to repeat the previous intoxication survey carried out by the Bureau on a sample of young adults in 2006 and examine whether: (1) the prevalence of intoxication among young adults drinking at licensed premises has decreased compared with the previous survey; and (2) whether the provision of RSA initiatives to intoxicated young adults has increased. It should be stated at the outset, however, that the repeat cross-sectional survey design employed in this study only permits an assessment of whether there has been a general improvement in RSA practice in NSW in the period between the two surveys. It is beyond the scope of this study to determine whether any particular intervention is responsible for any improvements that might be observed.

METHODS

The methodology used in the current survey is essentially identical to that used in the 2002 survey (Donnelly & Briscoe 2002, 2003). The questionnaire employed the same items to quantify degree of intoxication and the provision of RSA in the previous survey (see Donnelly and Briscoe (2002) for details). The key difference between the two surveys is that, while the survey conducted in 2002 was part of an omnibus¹ CATI-assisted telephone survey, the current survey was conducted as a stand-alone, CATI-assisted telephone survey².

Both surveys were conducted over the period December through February, excluding the weeks immediately prior to and following the Christmas holiday. This was done to control for the known effects

of seasonality on alcohol consumption and alcohol-related crime. For convenience of expression in this bulletin, the baseline survey conducted over the period December 2001 to February 2002 is referred to as the 2002 survey, while the follow-up survey conducted over the period December 2005 through February 2006 is referred to as the 2006 survey.

In order to ensure that the study had adequate statistical power to detect a difference in the provision of RSA measures, the sample size was increased, from 1,090 in 2002 to 2,427 participants in 2006.³ This increase in sample size provided sufficient statistical power to detect significant differences between the prevalence of RSA reported in 2006 compared with 2002. In addition, it provides confidence that if a null result is found, it is as a result of no change in the provision of RSA measures between 2002 and 2006, rather than a lack of statistical power to detect that change.

In the 2006 survey, a total of 31,647 calls were made to valid 'in scope' numbers.⁴ Of these, 18,944 (59.9%) reported that their household contained no members in the required age range. Of the remaining 12,703 numbers, 9,551 (75.2%) refused to participate and 725 (5.7%) had language difficulties that prevented the interview from proceeding. In 2,427 (19.1%) cases, an interview was conducted. If we assume that all the calls where language difficulties were encountered had at least one eligible respondent (in terms of age and sex), the response rate was 19.1 per cent. If none of these households had a potentially eligible member, then the response rate would have been 20.3 per cent.⁵

Because the sampled participants in 2002 and 2006 were not randomly selected, the socio-demographics of each sample were compared and are shown in Appendix A. There was no difference between the 2002 and 2006 samples in terms of their gender and location breakdowns (see Table A1). However there were differences in terms of age group, educational attainment, marital status and work status. The 2006 sample had a smaller proportion of 18-19 year olds and a larger proportion of 30-34 year

olds than the 2002 sample. The 2006 sample also had a higher proportion of respondents with a university education, a higher proportion of respondents who were married or in a defacto relationship and also a slightly higher proportion of persons in part-time/casual work. As most of the analyses of interest relate to those respondents whose last drinking occasion was at a licensed premises, Table A2 compares the 2002 and 2006 samples in relation to this sub-group of respondents. There is no evidence to suggest any significant difference in the sub-groups of the two samples in terms of gender, marital status and work status. The 2006 licensed premises sub-sample contained a higher proportion of respondents from regional areas, and a larger proportion of 30-34 year olds but lower proportion of 35-39 year olds, and a higher proportion of respondents with a university education.

Given these socio-demographic differences, it was necessary to conduct logistic regression analyses to control for these potentially confounding differences between the two survey samples. A manual backward elimination method was used whereby all socio-demographic variables as well as the variable coding for survey year were initially included in the model. Non-significant terms were then sequentially (and manually) removed until a final model containing only significant terms was defined. This ensures that any apparent differences between the 2002 and 2006 samples in terms of reported intoxication levels or RSA provision are not biased by these known socio-demographic differences between the samples.

RESULTS

CHANGES IN THE PREVALENCE OF DRINKING AT ACUTE-RISK LEVELS FOR ALCOHOL-RELATED HARM

From a total of 2,427 respondents in 2006, 1,601 (66.0%) reported that they had drunk at levels exceeding the NHMRC guideline for risk of acute

alcohol-related harm at least once in the previous 12 months. While this was lower than the 69.5 per cent of respondents who reported this in 2002, this difference was not statistically significant after controlling for age group, gender, location, educational attainment, marital status and work status using logistic regression analysis ($\chi^2=2.5$, $df=1$, $p=0.11$). The 2006 sample also reported lower rates of 'at least weekly' acute-risk drinking than did the 2002 sample (25.1% v 29.4%). However this difference was also not statistically significant after controlling for age group, gender, educational attainment, marital status and work status using logistic regression ($\chi^2=3.0$, $df=1$, $p=0.08$).

CHANGES IN LAST LOCATION OF DRINKING AT ACUTE-RISK LEVELS FOR ALCOHOL-RELATED HARM

Of the 1,601 respondents in 2006 who reported having consumed alcohol at acute-risk levels at least once during the previous 12 months, 820 (51.2%) reported that on the last such occasion the place they had been drinking was a licensed premises. While slightly lower than the percentage who reported that their last acute-risk drinking episode occurred on licensed premises in 2002 (54.4%), the

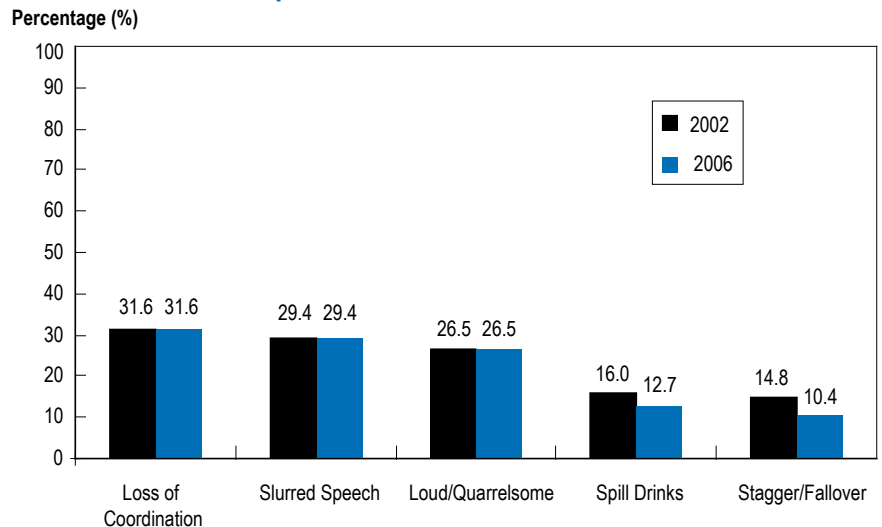
difference was not statistically significant ($\chi^2=2.0$, $df=1$, $p=0.16$).

In 2006, the majority (53.5%) of the 820 respondents who had been drinking at a licensed premises on their last acute-risk drinking episode reported that the type of licensed premises where they had been drinking was a hotel. A further 150 (18.3%) respondents stated that they had been drinking at a registered club, 100 (12.2%) stated that they had been drinking at a nightclub, 78 (9.5%) stated that they had been drinking at a licensed restaurant and 53 (6.5%) at some other type of licensed premises. There was no significant difference between the 2002 and 2006 surveys in the types of licensed premises at which risky drinking occurred ($\chi^2=8.3$, $df=5$, $p=0.14$).

CHANGES IN SIGNS OF INTOXICATION AMONGST THOSE DRINKING AT LICENSED PREMISES

Respondents who reported that their last acute-risk drinking occasion had occurred while at a licensed premises were then asked if they had shown any of the five signs of intoxication listed above. Of the 820 respondents in the 2006 survey who said they did, 259 (31.6%) reported 'loss of coordination', 241 (29.4%) reported

Figure 1: Changes in the percentage reporting each sign of intoxication when drinking at acute-risk levels at a licensed premises



'slurred speech', 217 (26.5%) reported 'loud or quarrelsome behaviour', 104 (12.7%) reported 'spilling drinks' and 85 (10.4%) reported 'staggering or falling over'. As can be seen in Figure 1, although there are slightly lower rates of 'spilling drinks' (12.7% v 16.0%) and 'staggering/falling over' (10.4% versus 14.8%) in 2006 compared with 2002, overall there are very few differences between the 2002 and 2006 samples in the relative frequency of different signs of intoxication.

Nor was there any change in the percentage of respondents at licensed premises who reported at least one sign of intoxication ($\chi^2=0.0$, $df=1$, $p=0.86$). In 2006, 56.3 per cent of those who were drinking at licensed premises reported showing at least one sign of intoxication, in comparison with 55.8 per cent in 2002 (see Figure 2).

The only notable change was a reduction in the proportion of patrons at licensed premises reporting three or more signs of intoxication. In 2002, 18.9 per cent reported three or more signs whereas in 2006, only 14.6 per cent reported three or more signs (see Figure 2). Logistic regression analysis controlling for age group, gender and location revealed this reduced level of intoxication at licensed premises in 2006 to be statistically significant at the five per cent level ($\chi^2=3.7$, $df=1$, $p=0.05$).

CHANGES IN REACTIONS OF LICENSED PREMISES STAFF TO RESPONDENTS SHOWING SIGNS OF INTOXICATION

Respondents who reported at least one sign of intoxication were asked how the licensed premises staff had reacted while they were showing these signs. Table 1 compares the RSA initiatives experienced by patrons in 2002 compared with 2006. Of the 462 respondents who reported showing at least one sign of intoxication in 2006, 249 (53.9%) reported that they continued to receive alcoholic drinks. Only 24 (5.2%) respondents reported that they were refused any more alcoholic drinks, while only eight (1.7%) reported that they were asked to leave the premises. Thirty-one (6.7%) respondents

Figure 2: Changes in the number of signs of intoxication reported between 2002 and 2006

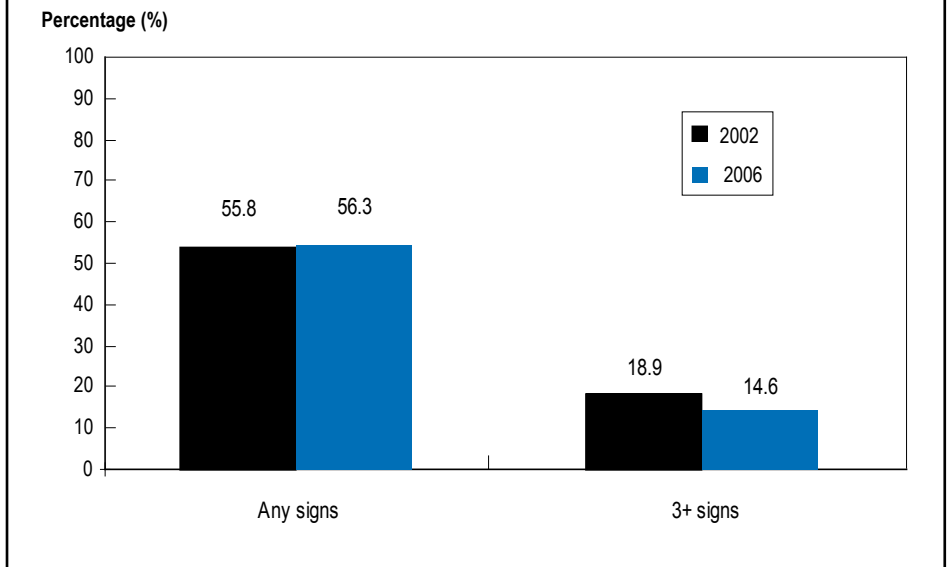


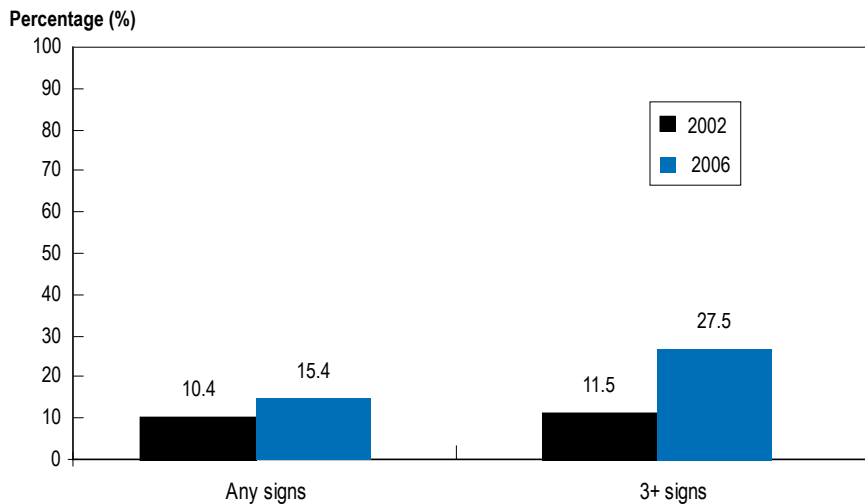
Table 1: Changes in the reactions of licensed premises staff to respondents who reported at least one sign of intoxication (n=230 in 2002 & n=462 in 2006)

Staff reaction when showing any signs of intoxication	2002	2006
Refused to serve me any more alcoholic drinks	2.2	5.2
Asked me to leave the premises	3.5	1.7
They called the police	0.4	0.4
Advised me on or organised transport home	4.8	6.7
Suggested I buy low or non-alcoholic drinks	2.2	4.8
Suggested I buy some food	1.7	3.0
Suggested that I stop drinking	3.5	7.1
They continued to serve me alcoholic drinks	54.8	53.9
None of the above	37.0	35.1
Respondent refused to answer question	0.9	0.4

reported that the staff had organised public transport home or advised them how to secure it, while 33 (7.1%) reported that staff had suggested they stop drinking. Other responsible service options were generally of low frequency.⁶ These rates were generally similar to those reported in 2002, though a higher percentage reported being refused service in 2006 (5.2% v 2.2%, $p=0.06$) and a higher percentage also reported that staff had advised them to stop drinking (3.5% v 7.1%, $p=0.05$).

As can be seen in Figure 3, between 2002 and 2006 there was an increase in the proportion of intoxicated respondents reporting at least one of the seven RSA initiatives, from 10.4% in 2002 to 15.4% in 2006. This difference did not reach statistical significance at the five per cent level ($\chi^2=3.2$, $df=1$, $p=0.08$). However among those showing three signs or more, the percentage reporting at least one RSA measure increased from 11.5% in 2002 to 27.5% in 2006 (see Figure 3). This difference was statistically

Figure 3: Changes in percentage of intoxicated respondents receiving RSA measures by number of signs of intoxication recorded



CHANGES IN OBSERVATIONS OF OTHERS EXHIBITING SIGNS OF INTOXICATION AND ASSOCIATED INTERVENTION BY LICENSED PREMISES STAFF

Of the 820 respondents who reported drinking at a licensed premises on their last acute-risk drinking occasion in 2006, 358 (43.7%) reported that they did not show any of the five signs of intoxication. This group was also asked whether they were aware of any other people on the licensed premises who were exhibiting signs of intoxication. There was an increase between 2002 and 2006 in the percentage that said they witnessed signs of intoxication in other patrons (54.9% in 2002 versus 63.4% in 2006). This increase just failed to attain statistical significance at the conventional five per cent level ($\chi^2=3.6$, $df=1$, $p=0.06$).

Those respondents who did not report any of the five signs of intoxication in themselves but who did observe at least one of the five signs in other patrons, were asked how the licensed premises staff had reacted to these other 'intoxicated' patrons. The frequencies and percentages of each of the individual reactions for 2002 and 2006 surveys are shown in Table 3. While there appeared to be a reduction in the prevalence of service refusal observed by this group (22.9% v 31.0%), the change was not statistically significant ($p=0.12$). All the other RSA initiatives were reported at similar levels in 2006 and 2002. The one exception concerned the percentage of respondents who observed intoxicated patrons being advised about transport options home, which increased from 6.0 per cent in 2002 to 14.1 per cent in 2006 ($p=0.04$). There was no change in the percentage of non-intoxicated patrons who observed intoxicated patrons continuing to receive alcoholic drinks.

In terms of non-intoxicated patrons having observed any of the seven RSA initiatives, the percentages were very similar across both surveys (50.0% in 2002 versus 47.6% in 2006; $\chi^2=0.163$, $df=1$, $p=0.69$). In both surveys around half reported at least one RSA initiative.

Table 2: Changes in the reactions of licensed premises staff to respondents who reported three or more signs of intoxication (n=78 in 2002 & n=120 in 2006)

<i>Staff reaction when showing 3 or more signs of intoxication</i>	<i>2002</i>	<i>2006</i>
Refused to serve me any more alcoholic drinks	3.8	11.7
Asked me to leave the premises	6.4	4.2
They called the police	1.3	1.7
Advised me on or organised transport home	6.4	9.2
Suggested I buy low or non-alcoholic drinks	2.6	5.8
Suggested I buy some food	2.6	3.3
Suggested that I stop drinking	3.8	15.0
They continued to serve me alcoholic drinks	65.4	54.2
None of the above	26.9	26.7
Respondent refused to answer question	0.0	0.8

significant ($\chi^2=7.2$, $df=1$, $p<0.01$). Logistic regression analysis found none of the other potentially confounding sociodemographic variables for this effect to be statistically significant.

Table 2 provides a more detailed breakdown of the reactions of licensed premises staff to that subgroup of respondents who had reported three or more signs of intoxication. This table suggests a pattern of increasing responsible service of alcohol measures between 2002 and 2006. There were

significant increases in service refusal (11.7% v 3.8%, $p=0.05$), having staff suggest to them that they stop drinking (15.0% v 3.8%, $p=0.01$) and advising on or organising transport home for them (9.2% v 6.4%, $p=0.05$). There was also a decreasing trend among those reporting three or more signs of intoxication to also report that they continued to be served alcoholic drinks (54.2% v 65.4%) but this difference was not statistically significant ($p=0.12$).

Table 3: Changes in the reactions of licensed premises staff to patrons who were observed by others to be intoxicated (n=100 in 2002 & n=227 in 2006)

<i>Staff reaction to others showing signs of intoxication</i>	<i>2002</i>	<i>2006</i>
Refused to serve them any more alcoholic drinks	31.0	22.9
Asked them to leave the premises	24.0	22.5
They called the police	3.0	3.5
Advised them on or organised transport home	6.0	14.1
Suggested they buy low or non-alcoholic drinks	7.0	7.9
Suggested they buy some food	3.0	4.8
Suggested that they stop drinking	18.0	18.9
They continued to serve them alcoholic drinks	26.0	23.8
None of the above	29.0	32.2
Respondent refused to answer question	0.0	0.4

DISCUSSION

This investigation was undertaken to determine whether there has been any improvement in the responsible service of alcohol by licensed premises in NSW since 2002. To address this question we replicated a 2002 telephone survey of 19-39 year olds, which asked respondents about signs of intoxication and the provision of RSA during their last drinking occasion at a licensed premises. That survey found high levels of intoxication among young adults drinking at licensed premises and very low levels of RSA provision by licensed premises staff. The same survey questions were used in both surveys and each survey was conducted during the same time of year (Summer) to control for seasonal variation in alcohol consumption patterns. A much larger number of respondents were surveyed in 2006 in order to ensure that there was sufficient statistical power to detect meaningful changes in intoxication levels and RSA provision.

No changes were found in the percentage of respondents who reported at least one of five signs of intoxication across the two survey occasions (approximately 50%). There was a modest increase in the provision of RSA initiatives to this group from 10 per cent in 2002 to 15

per cent in 2006 but this increase was not significant. There were, however, significant improvements in other areas. Firstly, the proportion of young adults drinking at a licensed premises who reported three or more signs of intoxication significantly decreased from around 19 per cent in 2002 to around 14.5 per cent in 2006. Secondly, the provision of RSA to this more intoxicated group of patrons increased across the two survey occasions. While less than 12 per cent of this group reported having received at least one of seven RSA interventions from bar staff in 2002, this increased to almost 28 per cent in 2006. In other words, while the likelihood of an intoxicated young adult receiving an RSA intervention was only around one in ten in 2002, this had improved to be better than one in four in 2006.

These changes are very encouraging but there is clearly room for further improvement. There are still large numbers of patrons being served alcohol on licensed premises even though they themselves admit showing several signs of intoxication. Around 50 per cent of the young patrons who reported showing three or more signs of intoxication, for example, said that they continued to be served alcohol. Although the percentage

of this group who were refused service more than doubled, it still remains very low (11.7 per cent). Similarly, although the percentage of respondents who were advised by bar staff to 'stop drinking' almost quadrupled only 15 per cent showing three or more signs of intoxication experienced this form of RSA intervention.

Recent overseas evidence shows that marked improvements in the provision of RSA at licensed premises are possible. Wallin, Gripenberg and Andreasson (2005) reported large increases in service refusal to apparently intoxicated persons at licensed premises in Stockholm, Sweden over the period 1996 through 2001. This investigation involved actors feigning signs of intoxication at licensed premises, with independent observers documenting whether or not alcohol service was refused. In 1996, service was only ever refused to these patrons on 5 per cent of occasions. By 1999 service refusal rates had risen to 47 per cent of occasions and by 2001, to 70 per cent. It is not entirely clear what specific initiatives produced the improved RSA service provision. Improvements in RSA practice were found among those premises that took part in specific RSA training programs as well as among those which did not. Wallin, Gripenberg and Andreasson (2005) argued that the observed improvements in serving practice in Stockholm were probably due to a combination of training, enforcement and general community mobilisation initiatives. As reviewed in previous Alcohol Studies Bulletins, a consistent theme to emerge from the RSA research literature is that to be effective, training programs need to be backed up with effective enforcement of the liquor laws (Stockwell 2001). A multi-modal strategy involving both training of bar staff and more effective enforcement practice would certainly be indicated.

As stated in the introduction of this bulletin, the current investigation aimed to measure whether or not there had been any improvement in the provision of RSA since the NSW Alcohol Summit

in 2003. The qualified answer to this question is that there has been a modest degree of improvement with respect to more overtly intoxicated patrons. The results are consistent with the other evidence suggesting that it is possible to encourage more responsible service of alcohol. There is, however, clearly scope for further improvement. It would seem prudent to continue with and perhaps expand the policy initiatives designed to encourage more responsible service in the wake of NSW Alcohol Summit. It would also seem prudent to begin evaluating individual initiatives so we can obtain a better understanding of what works in encouraging the responsible service of alcohol.

ACKNOWLEDGEMENTS

The authors gratefully acknowledge the Alcohol Education and Rehabilitation Fund (AERF) for funding the 2006 survey and Taverner Research for conducting the survey fieldwork.

NOTES

1. An omnibus survey is one that includes research questions from a variety of different organisations.
2. This change was made due to an alternative market research company having submitted a more cost-competitive bid to conduct the 2006 survey. Such stand-alone surveys also reduce the time burden on participants compared with an omnibus survey
3. Sample size calculations conducted prior to the 2006 survey indicated that a sample of approximately 2,400 would have 85% power to detect a reduction in licensed premises patrons showing three or more signs of intoxication from 19% to 12.5%. This sample size would also have 85% power to detect an increase in RSA provision to patrons showing three or more signs of intoxication from 11.5% to 28%.
4. Of the 52,771 randomly generated telephone numbers that were dialled over the three waves of the survey, contact was made with 31,647 (60.0%) households. Of the 21,124 numbers where no contact was made, 10,279 (48.7%) was because the number was invalid, 1,575 was because the number was either a fax or a business (7.5%), 2,765 (13.1%) were unavailable or unsuccessful after five attempts and 6,505 (30.8%) asked to be called at another time. Finally, 2,427 (19.1%) of these respondents at eligible numbers and who had a person in the 18-39 age range in the household were administered the responsible service of alcohol survey.
5. It was not possible to directly compare response rates across the 2006 and 2002 surveys due to differences in the manner in which each respective market research company recorded their call tally data. In the 2002 survey it was possible to quantify the percentage of potential respondents who agreed to participate in the omnibus survey before being excluded because their age-gender-location stratum had already been filled. This was not possible in the 2006 survey.
6. Overall, 71 (15.4%) of these 'intoxicated' patrons experienced at least one of the seven RSA initiatives. There were a further 162 (35.1%) respondents who reported that they did not experience any of the responsible service initiatives listed but also were not continued to be served alcohol (i.e. they nominated the 'none of the above' category).

REFERENCES

- Department of Gaming and Racing 2003, 'Mandatory responsible service of alcohol training', Information Sheet 9/03, website <http://www.dgr.nsw.gov.au/pdfs/9_03>.
- Donnelly, N & Briscoe, S 2002, 'Young adults' experience of responsible service practice in NSW', Alcohol Studies Bulletin, no. 2, NSW Bureau of Crime Statistics and Research, Sydney.
- Donnelly, N & Briscoe, S 2003, 'Signs of intoxication and server intervention among 18-39-year-olds drinking at licensed premises in New South Wales, Australia', *Addiction*, vol. 98, pp. 1287-1295.
- NSW Government 2004, *Outcomes of the NSW Summit on Alcohol Abuse 2003: Changing the culture of alcohol use in New South Wales*, NSW Government, Sydney.
- Saltz, RF 1986, 'Server intervention: will it work?' *Alcohol Health and Research World*, vol. 10, pp. 13-19.
- Stockwell, T 2001, 'Responsible alcohol service: Lessons from evaluations of server training and policing initiatives', *Drug and Alcohol Review*, vol. 20, pp. 257-265.
- Wallin, E, Gripenberg, J & Andreasson, S 2005, 'Overserving at licensed premises in Stockholm: Effects of a community action program', *Journal of Studies on Alcohol*, vol. 66, 80-6-814.
- Wiggers, J, Jauncey, M, Considine, R, Daly, J, Kingsland, M, Purss, K, Burrows, S, Nicholas, C & Watts, RJ 2004, 'Strategies and outcomes in translating alcohol harm reduction research into practice: the Alcohol Linking Program', *Drug & Alcohol Review*, vol 23, pp. 355-364.

APPENDIX A: COMPARISON OF THE 2002 AND 2006 SAMPLES ON SOCIO-DEMOGRAPHIC CHARACTERISTICS

Table A1: Socio-demographic variables compared across the two survey samples for all respondents

	Category	2002	2006	p value
Location	City	69.0%	67.9%	=0.51
	Country	31.0%	32.1%	
Gender	Males	51.4%	49.9%	=0.40
	Females	48.6%	50.1%	
Age*	18-19	11.0%	8.7%	<0.01 *
	20-24	22.0%	20.3%	
	25-29	22.9%	22.4%	
	30-34	18.9%	24.3%	
	35-39	25.1%	24.3%	
Highest Level of Education*	Below HSC	21.4%	15.1%	<0.01 *
	HSC	31.8%	27.8%	
	Trade or other certificate	21.1%	20.2%	
	University Degree	25.7%	36.9%	
Martial Status*	Single	44.1%	40.5%	<0.01 *
	Married/De facto	50.7%	55.8%	
	Divorced/Widowed	5.1%	3.7%	
Work Status	Full time	56.2%	55.8%	=0.01 *
	Part-time/Casual	21.7%	25.1%	
	Unemployed	4.3%	3.4%	
	Student	8.6%	6.0%	
	Other	9.2%	9.7%	

* Indicates a significant difference between 2002 and 2006 samples.

Table A2: Socio-demographic variables compared across the two survey samples for those respondents whose last acute-risk drinking occasion was at a licensed premises

	Category	2002	2006	p value
Location	City	72.3%	65.0%	=0.01 *
	Country	27.7%	35.0%	
Gender	Males	54.6%	53.3%	=0.66
	Females	45.4%	46.7%	
Age*	18-19	12.6%	12.0%	<0.01 *
	20-24	32.0%	28.3%	
	25-29	21.8%	22.4%	
	30-34	13.1%	21.3%	
	35-39	20.4%	16.0%	
Highest Level of Education*	Below HSC	17.7%	13.3%	=0.03 *
	HSC	32.5%	30.1%	
	Trade or other certificate	21.1%	20.5%	
	University Degree	28.6%	36.1%	
Martial Status	Single	54.9%	52.4%	=0.24
	Married/De facto	39.8%	43.8%	
	Divorced/Widowed	5.3%	3.8%	
Work Status	Full time	63.3%	62.5%	=0.12
	Part-time/Casual	22.1%	23.4%	
	Unemployed	4.1%	3.1%	
	Student	8.0%	6.0%	
	Other	2.4%	5.0%	

* Indicates a significant difference between 2002 and 2006 samples.