

Public opinion and experiences of crime two and five years following the implementation of a targeted regulation of licensed premises in Newcastle, Australia

JOHN WIGGERS^{1,2} , JENNY TINDALL¹ , REBECCA K. HODDER^{1,2} , KAREN GILLHAM¹ , MELANIE KINGSLAND^{1,2}  & CHRISTOPHE LECATHELINAIS^{1,2} 

¹Hunter New England Population Health, Newcastle, Australia, and ²School of Medicine and Public Health, The University of Newcastle, Newcastle, Australia

ABSTRACT

Introduction and Aims. In 2008 additional licensing restrictions were imposed on ‘high-risk’ licensed premises in the entertainment precinct of Newcastle (Australia) including earlier closing, a ‘lock-out’ and additional responsible service of alcohol restrictions. A study was conducted to assess community perceptions, experiences of crime and support for the restrictions, 2 and 5 years following implementation. **Design and Methods.** Telephone surveys were conducted with random samples of Newcastle community members (≥ 18 years) in 2010 and 2013. Change over time in perceptions and experiences of crime, and awareness and support of the conditions was analysed using logistic regression analyses for all participants, and separately for night-time visitors. **Results.** Among all participants (2010: $n = 376$; 2013: $n = 314$) the perception that alcohol misuse was a problem declined between 2010 and 2013 for all participants (90% to 85%; $P = 0.02$), and specifically among night-time visitors (87% to 75%; $P = 0.06$). Awareness of the restrictions was high among all participants and sub-groups, and remained constant over time. Support for the restrictions was also high, with drink restrictions being the most popular. More night-time visitors reported that conditions made the streets safer in 2013 (62%) than 2010 (47%; $P = 0.05$). Support for applying restrictions to all licensed premises in the Newcastle entertainment precinct (83%) and across New South Wales was high in 2013 (86%). **Discussion and Conclusions.** At 2 years and 5 years following implementation of additional licensing restrictions, significant improvements in public perceptions of the occurrence of alcohol-related harm and crime were evident, as were high levels of support for the restrictions. [Wiggers J, Tindall J, Hodder RK, Gillham K, Kingsland M, Lecathelinais C. Public opinion and experiences of crime two and five years following the implementation of a targeted regulation of licensed premises in Newcastle, Australia. *Drug Alcohol Rev* 2021;40:489–498]

Key words: licensed premise, public opinion, alcohol availability.

Introduction

Worldwide, alcohol consumption is responsible for 5.3% of deaths and 5.1% of the global burden of disease [1]. Between 2006 and 2015, over 56 000 Australians died from alcohol-attributable injury and disease caused by risky drinking [2]. Annually around 70 000 Australians are assaulted, 14 000 people hospitalised and 327 people die because of the drinking of others [3]. Licensed premises are a high-risk setting for alcohol-related violence, with a significant proportion of assaults occurring in or within close proximity to hotels and nightclubs compared to other settings [4]. Furthermore, a small proportion of such premises

(6–20%) are reported to account for a large majority (60–80%) of alcohol-related harms associated with licensed premises [5,6].

Hotels and nightclubs [7,8] are more likely to be associated with such harm than other types of licensed premises (e.g. restaurants), as are premises that are late closing (after midnight) [9,10] and do not comply with responsible alcohol serving practices [11]. Licensed premises that are located in areas with a high density of premises, such as ‘entertainment precincts’, have been found to be associated with higher levels of alcohol-related harm [7,9,10]. Reviews of strategies for reducing alcohol-related harms associated with licensed premises have found a range of strategies

John Wiggers PhD, Director, Jenny Tindall MSc, Program Manager, Rebecca K. Hodder PhD, Research Fellow, Karen Gillham MSocSc, Program Manager, Melanie Kingsland PhD, Research Fellow, Christophe Lecathelinais DESS de Mathématiques Appliquées, Statistician. Correspondance to: Professor John Wiggers, School of Medicine and Public Health, University of Newcastle, Hunter New England Population Health, Locked Bag 10, Wallsend, NSW 2287, Australia. Tel: +61 2 49246499; E-mail: john.wiggers@health.nsw.gov.au

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effective in reducing such harms, including reduced trading hours, limits on outlet density or strength of alcohol sold, and enforcement of liquor licensing laws related to responsible service of alcohol [9,10].

Public support is a key consideration by governments in the development of public health policies [12]. Public support for policies that target health-related behaviours broadly, including at-risk alcohol consumption, has been found to be greatest for strategies that impact the least on personal choices (particularly an individual's own choice) and among people least directly impacted by the policy [12]. In this context, a number of effective alcohol-harm reduction strategies, such as reductions in premises trading hours, have been reported to attract low levels of public support [9,10,13]. In contrast, high levels of public support have been reported for strategies without strong evidence of effectiveness, including education-based strategies or breathalysers in licensed premises [14].

Previous studies have reported variability in public support for harm reduction strategies over time. For example, in studies of public support for alcohol control policies introduced in Ireland over 20 years, support for earlier closing times declined between 2002 and 2010 from 41.5% to 20.9% [15] whereas support for drink driving counter measures increased. Similar variability in support has been reported in Australia. In regular national surveys, support for reducing the trading hours of all pubs and clubs declined between 1993 and 2001 [13]. Whereas between 2001 to 2010, support for this strategy increased, as did support for restricting late-night trading of alcohol, and stricter monitoring of late-night premises [16]. Li *et al.* has reported that public support can be an important influence on political decision making, and that understanding patterns over time is important, as most strategies that are highly supported often have less evidence compared to more restrictive policies which are less supported [17]. European research has similarly found that alcohol policy endorsement is not static, and suggests that routine monitoring of public opinion can contribute to the successful implementation and maintenance of alcohol policy measures [18].

Factors proposed to account for changes in levels of public support for alcohol policies over time include the implementation of policy changes (e.g. restrictions on or liberalisation of trading hours, number of premises or pricing) [15,16,19] and changes in public awareness of or concern regarding alcohol-related harms [19]. Such hypotheses suggest a dynamic and responsive quality to public support for alcohol policies, with the level of support appearing to be associated with whether concerns have or have not been met by a policy change, or whether a policy change is

perceived to negatively impact on a valued behaviour [16].

In 2008, in Newcastle, Australia, additional licensing restrictions were formally imposed on 14 'high-risk' licensed premises in the city entertainment precinct (29 premises) [20,21]. The premises had been classified as 'high risk' based on their having a hotel licence, trading beyond midnight, having a history of police-attended incidents and being located in the main entertainment precinct of Newcastle [22]. All premises meeting these criteria were subjected to the extra restrictions, which included: strategies limiting access to alcohol, including a reduction of trading hours (premises had to close by 3.30 am instead of 5 am); a 1.30 am 'lock-out' after which time patrons were permitted to leave, but not enter or re-enter the premises (often known as a 'curfew'); and additional responsible service of alcohol provisions, including limits on the purchase of high-alcohol drinks, the number of drinks purchased at any one time and the ceasing of alcohol service at least 30 min before closing time [20–22]. Evaluations of the impact of these additional licensing restrictions on incidents of police attended assaults in and around the entertainment precinct have consistently reported a 30% reduction in such incidents up to 5 years post-implementation [20,21].

Despite these findings, extensive community debate has occurred in the Newcastle community regarding the need for policy responses to reduce alcohol-related harms in the entertainment precinct, and the merit of the additional conditions. It is possible that there has been a change in public attitudes and perceptions over-time following the introduction of the restrictions due to a number of factors including existing societal norms, drinking patterns and the groups that the policies are aimed to protect (e.g. children, innocent third parties) [14].

Studies reporting changes over time in public support for alcohol policies typically only report data from regular surveys that assess support at the population level for hypothetical policy options. Few studies have reported changes in public support for actual policy changes, often implemented at a more local level, before and/or after their implementation [14]. To date, there has not been a reported assessment of community attitudes and perceptions regarding alcohol policies over an extended period of time following their implementation.

To assess community attitudes and perception regarding the additional licensing restrictions on high-risk premises in the Newcastle entertainment precinct, a study was undertaken to assess:

1. Changes over time in the perceptions and experiences of crime 2 and 5 years post-implementation of the additional licensing restrictions; and

2. Changes over time in public awareness of, support and perceived effectiveness of the additional licensing restrictions, 2 and 5 years post-implementation.

Methods

Study design and setting

A cross-sectional household survey was undertaken between March and May 2010, and repeated between May and June 2013, in the Newcastle region of New South Wales, Australia. In 2011 the adult population was 516 126. The city of Newcastle includes an entertainment precinct, which in 2010 had 19 hotels (5.1 hotels per 100 000 people), 17 of which traded beyond midnight (89%).

Ethics approval was granted for both surveys (2010: Deakin University Human Research Ethics Committee: EC41-2009; 2013: Hunter New England Human Research Ethics Committee: 13/03/20/5.08).

Sample

Members of households residing in the same local government area as the entertainment precinct and in adjoining local government areas were invited to participate. Telephone numbers and addresses (2010, $n = 1250$; 2013, $n = 1263$) were selected from local telephone directories using simple random sampling. Businesses and mobile phone numbers were excluded. English-speaking adults with the next birthday were eligible. ID sampling processes.

Data collection procedures

Letters were sent to selected addresses at both time points inviting the eligible person to participate in a 25-min computer-assisted telephone interview regarding their opinions and experiences of alcohol-related crime, alcohol-harm reduction strategies in Newcastle and their alcohol use. Up to 10 contact attempts were made per household. The same questions were asked in 2010 and 2013, unless otherwise stated.

Measures

Participant characteristics. Participants were asked their: date of birth; sex; highest educational qualification; employment type; and annual personal income. To identify those most likely to be impacted by the licensing conditions, participants were asked whether

they had visited a licensed premise in the Newcastle entertainment precinct after 10 pm in the last 12 months (yes/no); the frequency (never/monthly or less/2 to 4 times a month/2 to 3 times a week/4 to 6 times a week/everyday) and quantity of alcohol consumption typically consumed (1–2/3–4/5–6/7–9/10 or more) [23]; and how often they consumed more than six standard drinks on one occasion (never/less than monthly/monthly/weekly/daily or almost daily) [24].

Perception and experience of crime and safety in the Newcastle entertainment precinct. All participants were asked questions regarding the Newcastle entertainment precinct including perception of whether alcohol misuse was an issue, the estimated proportion of crime that was alcohol-related, which forms of crime/disorder were a concern, and how safe or unsafe they felt when walking alone at night in the main entertainment area (Table S1). Questions from the British Crime Survey 2008–2009 were used where possible [25].

Awareness, attitudes, observations and perceived effectiveness of the additional licensing restrictions. All participants were asked if they were aware that some hotels in Newcastle had additional licensing restrictions imposed in March 2008, and for each of the three categories of restrictions (early closing, lock-outs and drink restrictions), whether they were aware of the restrictions and their level of support.

All participants were asked if they had visited the entertainment precinct after 10 pm in the last 12 months. If they had, they were asked if they had observed the restrictions; their perception of how effective the restrictions had been in making the streets and premises safer; and whether they had observed or been involved in a verbal argument or physical assault in the entertainment precinct during this time. If they reported observing violence, they were asked if alcohol was involved in the most recent incident.

Data analysis

Alcohol consumption was categorised as either 'risky drinkers' (three or more drinks on a typical day and/or six or more drinks on one occasion) or 'non-risky drinkers' (non-drinkers, drinking two or less drinks on a typical day, and/or never drinking more six or more drinks on one occasion) [24,26]. Participants visiting a licensed premise in the Newcastle entertainment precinct after 10 pm were categorised as: 'night-time visitor' or 'non night-time visitor'. Responses to survey items regarding perceptions and experience of crime and safety in the Newcastle entertainment precinct;

and awareness of, attitudes, observations and perceived effectiveness of the additional licensing restrictions, were categorised for analysis (Table S1).

For each measure, to assess change over time, a logistic regression analysis was undertaken, including a time variable (two time points), controlling for age, gender and at-risk alcohol consumption (consuming at levels for lifetime and/or acute harm). The chi-square *P*-value was derived from each model, as well as adjusted frequencies, odds ratios (OR) and their 95% confidence limits. Given the exploratory nature of the analysis, significance (*P*-values) was set at 0.05. Statistical analyses were conducted using the SAS/STAT System for Windows Release 9.2.

Results

Participant characteristics

In 2010, of the 1250 telephone numbers called, 200 were non-contactable and 95 were of unknown eligibility (e.g. unknown if household occupied). Of the 955 who were contacted, 136 were deemed ineligible. Of the remaining eligible participants (819), 376 completed the survey, 409 refused to participate and 34 were not interviewed (e.g. sick or moved) (response rate 34%). In 2013, of the 1263 telephone numbers called, 33 were non-contactable and 201 were of unknown eligibility. Of the 1029 who were contacted, 196 were deemed ineligible. Of the remaining eligible participants (833), 314 completed the survey, three partially completed the survey, 501 refused to participate and 15 were not interviewed (response rate 29%). These response rates used the calculation of Response Rate 1 for Random Digit Dialling, from the American Association for Public Opinion Research [27].

Table 1 shows that the only participant characteristic that was significantly different between time points was age. In 2010, 89.1% were aged 31 years or over, increasing to 94% in 2013 (OR 1.85; *P* = 0.04). The proportion of younger people (18–30 years) consuming alcohol at risky levels significantly decreased from 19.3% in 2010 to 8.7% in 2013 (OR 0.84; *P* = 0.01), while a significant increase was found in people aged 31 years and older (2010: 19.3%; 2013: 8.7%, OR 0.38, *P* = 0.01).

Perception and experience of alcohol-related crime and safety in the Newcastle entertainment precinct

Table 2 shows that the proportion of participants who agreed that alcohol misuse was a problem in the precinct significantly decreased from 89.9% in 2010 to

84.9% in 2013 (OR 0.58; *P* = 0.02). This significant decrease was also identified in visitors to the precinct (2010: 86.5%; 2013: 74.5%, OR 0.38, *P* = 0.006) and those that reported consuming alcohol at risky levels (2010: 87.6%; 2013: 77.4%, OR 0.43, *P* = 0.009). There was also a significant decrease in the proportion of participants that stated they would never walk alone after dark in the precinct (2010: 69%; 2013: 59.2%, OR 0.59, *P* = 0.002).

Awareness of, attitudes to and observations of implementation of additional licensing restrictions

Table 3 shows that awareness of the restrictions was high (>87%) among all participants, visitors and risky drinkers, and this was consistent between time points. There was a significant decrease in the awareness of the early closing (2010: 94.1%, 2013: 85.5%; OR 0.38, *P* < 0.001), but a significant increase in the awareness of the drink restrictions (2010: 79%, 2013: 84.9%; OR 1.65, *P* = 0.02). Support for the restrictions was also high overall and in the sub-groups, with drink restrictions achieving the highest level of support in 2010 and 2013. Support for early closing, drink restrictions and lock-outs remained steady across the 3 years.

The proportion of night-time visitors that reported observing non-compliance with the restrictions was low (21.1% in 2010 and 18.9% in 2013), and over 60% reported observing at least one of the restrictions while in the precinct. There were no differences across time. This group also reported that they believed the restrictions made the streets and premises safer, and this increased significantly for making the streets safer (2010: 47.4%, 2013: 62.3%; OR 1.72, *P* = 0.05). In 2013, participants were asked additional questions on their level of support for other strategies. Support for applying the restrictions to all premises in the Newcastle Entertainment Precinct and to all late-night premises in New South Wales was high, among all groups (>73%). The majority of participants also thought that the number of late-night premises and packaged liquor outlets in Newcastle should remain the same or be reduced. However, the majority thought that the enforcement of Newcastle premises should be increased (74%) (Table 4).

Discussion

This study described, at two time-points, community perceptions regarding alcohol-related crime, and support for and perceived effectiveness of additional

Table 1. Comparison over time of the sex, age and risk of lifetime harm from alcohol consumption by night-time visitor to the entertainment precinct and risk of acute harm from alcohol consumption

Characteristic	Total, n = 689				Night-time visitor to precinct in last year				Consuming alcohol at risky levels			
	2010, n = 376, % (CI)	2013, n = 313, % (CI)	OR (CI)	P-value	2010, n = 133, % (CI)	2013, n = 107, % (CI)	OR (CI)	P-value	2010, n = 161, % (CI)	2013, n = 115, % (CI)	OR (CI)	P-value
<i>Gender</i>												
Male	42.0 (35.4, 49.1)	42.1 (35.4, 49.2)	1.03 (0.75, 1.42)	0.86	38.3 (27.8, 50.6)	46.2 (34.5, 58.8)	1.47 (0.85, 2.54)	0.17	57.8 (48.4, 67.1)	56.5 (46.8, 66.1)	0.84 (0.51, 1.38)	0.49
<i>Age</i>												
18–30 years	10.9 (7.1, 16.5)	5.8 (3.3, 10.1)	0.54 (0.30, 0.98)	0.04	24.1 (15.5, 36)	14.0 (7.6, 24.8)	0.63 (0.31, 1.29)	0.21	19.3 (12.6, 28.3)	8.7 (4.4, 16.3)	0.38 (0.18, 0.82)	0.01
31 years or over	89.1 (83.5, 92.9)	94 (89.9, 96.7)	1.85 (1.02, 3.35)	0.04	76 (64, 84.5)	86.0 (75.2, 92.4)	1.58 (0.78, 3.21)	0.21	81.0 (71.7, 87.4)	91.0 (83.7, 95.6)	2.63 (1.21, 5.71)	0.01
<i>Aboriginality</i>												
Aboriginal or Torres	0.5 (0.1, 3.3)	1.0 (0.3, 5.4)	1.73 (0.28, 10.56)	0.56	NA	NA	1.58 (0.78, 3.21)	NA	NA	NA	2.63 (1.21, 5.71)	NA
<i>Strait Islander</i>												
<i>Type of employment</i>												
Employed	52.4 (44.5, 59.9)	51.7 (43.7, 59.4)	1.09 (0.79, 1.50)	0.61	75.8 (62.0, 85.6)	78.3 (64.8, 87.6)	1.27 (0.67, 2.39)	0.46	70.9 (59.3, 80)	72.6 (61.0, 81.7)	1.12 (0.66, 1.92)	0.67
Unemployed	6.8 (3.5, 12.6)	5.4 (2.7, 10.6)	0.84 (0.44, 1.62)	0.61	8.4 (3.1, 20.4)	4.9 (1.5, 15.4)	0.66 (0.23, 1.92)	0.45	8.2 (3.6, 17.4)	5.4 (2.0, 13.6)	0.67 (0.24, 1.83)	0.43
Retired	35.4 (29.2, 42)	37.8 (31.0, 45.0)	0.96 (0.68, 1.36)	0.82	11.3 (5.7, 20.5)	13.8 (6.9, 25.2)	0.98 (0.43, 2.24)	0.95	17.1 (11.3, 25.1)	15.9 (9.6, 25.3)	0.81 (0.41, 1.60)	0.54
Non-paid duties	5.4 (2.8, 10.6)	5.1 (2.6, 10.2)	0.98 (0.49, 1.96)	0.95	4.6 (1.3, 16.4)	3.0 (0.6, 13.3)	0.70 (0.17, 2.93)	0.63	3.8 (1.3, 10.7)	6.3 (2.3, 16.1)	1.96 (0.68, 5.68)	0.21
<i>Level of education</i>												
No post-school	43.6 (35.9, 51.8)	42.4 (34.7, 50.6)	0.93 (0.68, 1.26)	0.63	31.6 (20.2, 45.4)	25.5 (15.1, 39.3)	0.81 (0.45, 1.46)	0.49	36.0 (25.8, 47.6)	29.6 (20.1, 41.1)	0.77 (0.45, 1.29)	0.32
Post-school	56.0 (47.7, 63.6)	56.9 (48.8, 64.6)	1.08 (0.79, 1.47)	0.65	68.4 (54.6, 79.8)	73.6 (59.7, 84.2)	1.18 (0.66, 2.11)	0.58	62.7 (51.1, 73.1)	70.4 (58.9, 79.9)	1.38 (0.82, 2.33)	0.22
<i>Annual income</i>												
Mid to high (\$31,200 or over)	53.4 (45.0, 61.5)	51.0 (42.9, 58.9)	0.94 (0.66, 1.34)	0.73	66.0 (51.6, 77.8)	65.0 (51.1, 77.5)	0.87 (0.46, 1.65)	0.67	72.0 (60.5, 81.6)	69.0 (57.1, 79.1)	0.80 (0.45, 1.44)	0.46
Low (<\$31,200)	47.0 (38.5, 55)	49.0 (41.1, 57.1)	1.07 (0.75, 1.52)	0.73	34.2 (22.2, 48.4)	34.7 (22.5, 48.9)	1.15 (0.61, 2.17)	0.67	27.9 (18.4, 39.5)	31 (20.9, 42.9)	1.25 (0.70, 2.24)	0.46
<i>Alcohol consumption</i>												
Alcohol lifetime risk (risky)	37.0 (31.8, 41.0)	29.3 (24.3, 33.5)	0.74 (0.45, 1.21)	0.23	57.1 (46.8, 63.8)	40.6 (30.1, 48.7)	0.52 (0.24, 1.10)	0.09	68.9 (57.5, 78.3)	60.9 (48.8, 71.6)	0.75 (0.44, 1.26)	0.27
<i>Alcohol consumption acute risk (risky)</i>												
Alcohol consumption acute risk (risky)	50.3 (50.3, 50.3)	44.1 (44.1, 44.1)	1.00 (0.86, 1.16)	1.00	71.4 (71.4, 71.4)	60.4 (60.4, 60.4)	1.00 (0.77, 1.30)	1.00	NA	NA	0.75 (0.44, 1.26)	NA

P values in italics are statistically significant. CI, confidence interval; NA, not applicable; OR, odds ratio.

Table 2. Comparison over time of the proportion of participants agreeing with statements regarding perceptions of alcohol-related crime and safety in the Newcastle entertainment precinct by night-time visitor to the precinct, and risk of acute harm from alcohol consumption

Statement	Total; n = 689			Night-time visitor to precinct in last year			Consuming alcohol at risky levels					
	2010, n = 376, % (CI)	2013, n = 313, % (CI)	OR (CI)	P-value	2010, n = 133, % (CI)	2013, n = 107, % (CI)	OR (CI)	P-value	2010, n = 161, % (CI)	2013, n = 115, % (CI)	OR (CI)	P-value
Alcohol misuse is a problem in the precinct	89.6 (83.8, 93.5)	84.9 (77.7, 90.1)	0.58 (0.36, 0.93)	0.02	86.5 (75.3, 93)	74.5 (59.5, 85.3)	0.38 (0.19, 0.76)	0.006	87.6 (78.6, 93.2)	77.4 (65.7, 86.2)	0.41 (0.21, 0.80)	0.009
70% or more of crime in the precinct is alcohol-related	46.3 (38.5, 54.6)	37.5 (30.2, 45.6)	0.65 (0.47, 0.90)	0.009	37.1 (24.9, 51.5)	27.4 (16.9, 41.3)	0.56 (0.31, 1.01)	0.05	38.8 (28.5, 50.5)	37.4 (27.0, 49.3)	0.87 (0.52, 1.45)	0.60
Violence caused by intoxication is a problem in the precinct (verbal or physical abuse)	98.1 (94.2, 99.4)	96.7 (91.2, 98.7)	0.58 (0.21, 1.58)	0.29	99.2 (89.3, 99.9)	97.2 (82.1, 99.6)	0.25 (0.03, 2.31)	0.22	99.4 (91.9, 99.9)	96.5 (84.8, 99.2)	0.15 (0.01, 1.88)	0.14
Non-violent problems caused by intoxication is a problem in the precinct (noise, vandalism, drinking in parks)	90.7 (84.4, 94.6)	92.8 (87.3, 95.9)	1.26 (0.72, 2.22)	0.42	89.5 (76.7, 95.6)	92.5 (81.1, 97.2)	1.33 (0.52, 3.42)	0.56	90.1 (80.4, 95.3)	92.2 (83.1, 96.6)	1.17 (0.47, 2.90)	0.73
Would never walk alone after dark in the precinct	69.0 (61.4, 75.8)	59.2 (51.1, 67)	0.59 (0.42, 0.82)	0.002	47.4 (34.8, 60.3)	47.2 (33.9, 60.9)	1.07 (0.61, 1.88)	0.82	57.5 (46.2, 68.0)	47.8 (36.5, 59.4)	0.62 (0.37, 1.04)	0.07
Would never wait for public transport alone after dark in the precinct	76.2 (69.1, 82.3)	72.4 (64.6, 79.1)	0.72 (0.50, 1.03)	0.08	61.7 (48.4, 73.4)	62.3 (48.4, 74.5)	0.99 (0.55, 1.76)	0.96	65.0 (53.8, 74.9)	60.0 (48.1, 70.9)	0.74 (0.44, 1.23)	0.24

P values in italics are statistically significant. CI, confidence interval; OR, odds ratio.

Table 3. Comparison over time of the proportion of participant awareness, support, observation, perceived effectiveness and proposed future of the additional licensing restrictions in Newcastle, by night-time visitor to the entertainment precinct and risk of alcohol-related harm

	Total, n = 689				Night-time visitor to precinct in last year				Consuming alcohol at risky levels					
	2010, n = 376, % (CI)		2013, n = 313, % (CI)		2010, n = 133, % (CI)		2013, n = 107, % (CI)		2010, n = 161, % (CI)		2013, n = 115, % (CI)		OR (CI)	P-value
<i>Awareness of additional licensing restrictions</i>														
Aware of additional licensing restrictions	89.9 (84.1, 93.8)	86.8 (80.1, 91.6)	0.71 (0.44, 1.15)	0.16	91.0 (80.6, 96.2)	90.6 (79.3, 96.3)	0.80 (0.32, 2.03)	0.64	90.7 (81.9, 95.6)	92.2 (83.2, 96.7)	0.94 (0.38, 2.33)	0.89		
Early closing	94.1 (89.6, 96.7)	85.5 (77.9, 90.6)	0.38 (0.22, 0.65)	<0.001	97.0 (89.2, 99.1)	89.6 (75.0, 96.0)	0.26 (0.08, 0.85)	0.03	95.7 (88.3, 98.4)	92.2 (82.3, 96.7)	0.55 (0.20, 1.47)	0.23		
Aware of drink restrictions	79.0 (71.5, 84.6)	84.9 (78.5, 89.5)	1.65 (1.10, 2.49)	0.02	93.2 (81.5, 97.5)	93.4 (82.1, 97.6)	1.25 (0.44, 3.52)	0.68	90.1 (80.0, 94.8)	93 (84.4, 96.8)	1.61 (0.66, 3.92)	0.29		
Lock outs	84.8 (78, 89.6)	85.9 (79.3, 90.4)	1.16 (0.75, 1.81)	0.50	94.0 (84.2, 97.8)	90.6 (77.7, 96.2)	0.75 (0.26, 2.15)	0.60	91.9 (83.2, 96.2)	91.3 (82.0, 95.9)	0.87 (0.36, 2.10)	0.75		
<i>Support for additional licensing restrictions</i>														
Early closing	77.3 (69.6, 83.7)	82.4 (75.2, 87.9)	1.25 (0.82, 1.89)	0.30	66.6 (52.4, 78.2)	77.6 (64.3, 86.9)	1.50 (0.79, 2.85)	0.21	67.5 (55.8, 77.5)	69.0 (57.0, 79.0)	1.00 (0.58, 1.72)	1.00		
Drink restrictions (any of 8)	81.0 (73.1, 87)	83.8 (76.5, 89.2)	1.10 (0.70, 1.72)	0.67	72.7 (58.2, 83.5)	76.5 (62.1, 86.5)	1.03 (0.54, 1.97)	0.93	73.1 (61.4, 82.3)	71.5 (59.3, 81.2)	0.91 (0.51, 1.60)	0.73		
<i>Observed additional licensing restrictions</i>														
Witnessed the restriction	18.4 (10, 31.5)	16.7 (8.9, 29.2)	0.95 (0.48, 1.87)	0.87	21.1 (11.8, 34.6)	18.9 (10.2, 32.4)	0.95 (0.48, 1.87)	0.87	27.1 (15.1, 43.6)	22.6 (12.0, 38.7)	0.79 (0.34, 1.83)	0.59		
Witnessed non-compliance with RSA restriction	53.2 (39.7, 66.3)	63.4 (49.4, 75.4)	1.73 (0.98, 3.08)	0.06	60.9 (47.1, 72.8)	67.9 (54.1, 79.1)	1.73 (0.98, 3.08)	0.06	67.1 (50.6, 80)	73.3 (56.6, 85.0)	1.43 (0.65, 3.14)	0.38		
<i>Witnessed involved in physical violence^a</i>														
Yes														
Alcohol involved ^c														
The additional restrictions were effective in ^{a,b,c}														
Making streets safer	-	-	-	-	47.4 (34, 61.2)	62.3 (47.9, 74.8)	1.72 (1.01, 2.94)	0.05	43.0 (28.5, 58.9)	62.0 (45.3, 76.3)	2.10 (1.03, 4.29)	0.04		
Making premises safer	-	-	-	-	60.2 (46.1, 72.8)	63.2 (48.7, 75.7)	1.12 (0.65, 1.93)	0.68	60.3 (44.3, 74.3)	61.2 (44.5, 75.7)	1.05 (0.52, 2.13)	0.90		

^aOnly asked of night-time visitors to the entertainment precinct (Time 1: n = 133, Time 2: n = 107) ^bOnly asked of participants who witnessed/involved in non-physical violence (Time 1: n = 73, Time 2: n = 47) ^cOnly asked of participants who witnessed/involved in physical violence (Time 1: n = 71, Time 2: n = 38). P values in italics are statistically significant. CI, confidence interval; OR, odds ratio; RSA, responsible service of alcohol.

Table 4. Support for proposed future additional licensing restrictions in Newcastle, by night-time visitor to the entertainment precinct and risk of alcohol-related harm in 2013

	Total	Night-time visitor to precinct in last year	Consuming alcohol at risky levels
	2013, n = 313, % (CI)	2013, n = 107, % (CI)	2013, n = 115, % (CI)
Support restrictions being widened to cover all licensed premises in the Newcastle entertainment precinct	82.9 (73.2, 89.6)	73.6 (53.9, 86.5)	73.9 (58.4, 84.0)
Support restrictions being applied to all late-night premises in NSW	85.9 (76.4, 91.6)	76.4 (56.3, 88.2)	78.3 (66.0, 87.0)
<i>Number late-night premises in Newcastle should:</i>			
Be increased	11.5 (6.3, 20.2)	16.0 (6.8, 33.8)	18.3 (9.6, 32.7)
Stay the same	48.4 (38.0, 58.8)	48.1 (30.7, 66.1)	58.3 (43.1, 71.4)
Be decreased	27.0 (19.3, 37.1)	21.7 (11, 39.9)	12.2 (5.9, 23.4)
<i>Number packaged liquor outlets in Newcastle should:</i>			
Be increased	1.3 (0.3, 5.9)	1.9 (0.2, 13.2)	3.5 (0.7, 15.2)
Stay the same	53.6 (43.4, 63.3)	62.3 (44.9, 76.5)	70.4 (55.7, 81.8)
Be decreased	36.8 (28.0, 47.2)	28.3 (16.4, 45.7)	20.0 (10.9, 34.5)
<i>Enforcement of alcohol laws in Newcastle venues should:</i>			
Be increased	74.3 (63.9, 82.4)	69.8 (50.5, 83.4)	73.0 (57.7, 83.7)
Stay the same	19.4 (12.3, 29.4)	25.5 (13.0, 44.9)	20.9 (11.5, 35.8)
Be decreased	0.7 (0.1, 4.4)	0.9 (0.1, 5.4)	0.9 (0.1, 5.6)

CI, confidence interval; NSW, New South Wales.

licensing restrictions imposed on high-risk premises in the city entertainment precinct of Newcastle, Australia. The study found that at 2 and 5 years following the implementation of the restrictions, support for the restrictions was high and remained constant for all participants, and specifically for visitors to the precinct after 10 pm and risky drinkers. There was also strong support for the extension of the restrictions to all licensed premises in Newcastle and all late-night premises across New South Wales. Perceived effectiveness of the restrictions in reducing alcohol-related crime increased over time, with almost two-thirds of both visitors to the precinct and risky drinkers perceiving the restrictions to be effective. The findings suggest that the imposition of additional licensing restrictions that restrict the availability and accessibility of alcohol have high levels of public support, including among those most directly affected.

The findings of significant reductions in the proportion of participants reporting that alcohol misuse was a problem in the precinct, and that most crime was alcohol-related, are supported by the findings of previously reported evaluations of the impact of the licensing restrictions indicating a reduction in night-time non-domestic assaults [20,21]. The findings of a significant improvement among visitors to the precinct perceiving that the city was safe and witnessing less physical violence are similarly supported the results of these studies [20,21]. Such findings

suggest an alignment between public perceptions and objective measures of trends in the occurrence of alcohol-related harms. Notwithstanding this alignment and perceived improvement, the proportion of participants reporting concerns regarding alcohol-related problems in the precinct remains high, suggesting that additional policy changes may be required to further improve community safety and amenity.

Previous studies of public support for alcohol policies have found lower levels of support for policies that restrict availability and accessibility of alcohol [12]. For example, in a number of countries, less than a third of community members support earlier closing times of on-licensed premises [28,29]. In Australia, a slightly higher (49.6%) prevalence of support has been reported for such a policy approach [30]. In this context, the study finding of a consistently high level of support (77.2% in 2010 and 82.1% in 2013) for the earlier closing condition, including among those most directly affected, are unusual. However, although not directly comparable to other studies since this study evaluates implemented strategies rather than hypothetical, the findings of such high levels of public support are consistent with those reported in studies of public support for changes in alcohol policy that followed specific adverse events or circumstances at either local or population levels. For example, high levels of support have been reported for the implementation of liquor

licensing restrictions in Indigenous communities in Australia [31,32].

Similarly, the introduction of random breath testing in Australia has been associated with high and increasing levels of public support over time [33–37]. As the reasons for why participants in each survey supported the policy changes described in this study were not directly assessed, explanations for the observed high rates of support for the restrictive alcohol control policies are unknown. However, as the change in alcohol policies described in this study, and those relating to Indigenous communities and random breath testing have been associated with reductions in alcohol-related harms, it appears that high and increasing levels of public support for restrictive alcohol policies can be achieved where clear harm reduction benefits can be demonstrated. Similarly, it is unknown whether the declining trend in alcohol consumption for long-term risk in adults across New South Wales between 2010 and 2013 (from 30% to 27%) impacted levels of public support [38]. To confirm these suggestions, future evaluation of public support for planned changes in alcohol policies should include assessment of changes in the reasons for support/non-support of the proposed policy change.

No direct comparison with the findings of previous research was possible for the study finding of high and increasing levels of public support for the ‘lock-out’ restrictions or the specific responsible service of alcohol restrictions imposed. However, the findings are broadly consistent with the level and trends of support reported in regular national surveys of Australian public attitudes regarding greater restriction of late-night trading, stricter monitoring of late-night premises and stricter enforcement of responsible service of alcohol laws [16].

Interpretation of results of this study needs to occur within the context of its methodological characteristics. First, the generalisability of the study findings is limited as they relate to a specific sequence of adverse events and a single city. The imposition of the additional licensing restrictions in the Newcastle entertainment precinct occurred in a reactive rather than proactive policy setting manner, in response to a history of alcohol-related problems and formal police and community complaint. Notwithstanding this limitation, the manner in which the restrictions were imposed in Newcastle and the findings of this study with regard to public support for those restrictions provide an example of the contribution of public opinion to both the initiation and ongoing implementation of alcohol policies. Second, it is possible that the sample was biased based on access to a listed telephone landline being an eligibility criterion. It has been reported that people without landlines are more likely to

consume alcohol at risky levels [39,40]. Thus, the overall levels of support may be an overestimate.

Third, as the Alcohol Use Disorders Identification Test Tool was used to assess alcohol consumption, a cut-point of six standard drinks was used to define alcohol consumption related to acute risk rather than the current recommended four standard drinks [26]. As a consequence, the prevalence of at-risk drinking is likely to underestimate the proportion of participants drinking at such levels. Fourth, due to the reactive and prompt implementation of restrictions, no baseline data were collected. While the study is also potentially limited by the low response rates in both surveys, the age and gender characteristics of the sample were not significantly different to the populations from which the samples were drawn. Some differences in the demographic and alcohol risk characteristics of participants in both surveys were evident (e.g. 2013 participants were slightly older and less likely to consume alcohol at-risk levels) and may have contributed to the higher levels of reported support in 2013. Notwithstanding this possibility, the key finding of sustained high level of public support remains.

In conclusion, evidence from the literature has suggested that community support for alcohol harm reduction strategies changes over time, particularly support for regulatory strategies and for strategies after they have been implemented and reductions in harm have ensued as a consequence. Given the ongoing community and policy debate regarding the merit of regulatory alcohol harm reduction strategies, and evidence of their positive impact on the prevalence of alcohol-related harms, this study provides important information regarding the impact of such factors on the continuity of community support for alcohol harm reduction strategies.

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Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's website:

Table S1: Survey Items in 2010 and 2013.