# The impact of alcohol management practices on sports club membership and revenue 

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#### Abstract

Issue addressed: The aim of this study was to assess the impact of an alcohol management intervention on community sporting club revenue (total annual income) and membership (number of club players, teams and spectators). Methods: The study employed a cluster randomised controlled trial design that allocated clubs either an alcohol accreditation intervention or a control condition. Club representatives completed a scripted telephone survey at baseline and again $\sim 3$ years following. Demographic information about clubs was collected along with information about club income. Results: Number of players and senior teams were not significantly different between treatment groups following the intervention. The intervention group, however, showed a significantly higher mean number of spectators. Estimates of annual club income between groups at follow-up showed no significant difference in revenue. Conclusions: This study found no evidence to suggest that efforts to reduce alcohol-related harm in community sporting clubs will compromise club revenue and membership.


So what? These findings suggest that implementation of an intervention to improve alcohol management of sporting clubs may not have the unintended consequence of harming club viability.

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## Introduction

Excessive alcohol consumption is common among sporting club members and spectators; it is particularly prevalent among young male players of contact team sports. ${ }^{1}$ Strategies to regulate the availability and service of alcohol at public drinking venues have been found to reduce alcohol consumption and alcohol-related harm. ${ }^{2}$ As venues licensed to sell alcohol to large numbers of patrons each year, ${ }^{3}$ interventions targeting the availability and service of alcohol in non-elite sporting clubs represent an opportunity to address excessive alcohol use in the community.
Across states, several programs in Australia have been delivered to reduce excessive alcohol use in community sporting clubs. However, there is some evidence to suggest that health promotion initiatives to reduce alcohol-related harm in this setting may compromise the financial viability of community sports clubs and negatively impact on opportunity or community participation in organised sports. For example, a survey of representatives from football codes in Australia found that 51\% believed it would be difficult for their club to survive without revenue from the sale of
alcohol, and 95\% were concerned about club viability if their club did not receive alcohol sponsorship. ${ }^{4}$ Furthermore, $15 \%$ believed that players would not want to be members of a club with strict alcohol-management practices at clubs venues and events. Such perceptions may be a key barrier to sporting club engagement and participation in health promotion initiatives to reduce alcohol misuse.

In contrast, however, a recent uncontrolled study of 657 sports clubs enrolled in a national alcohol management program ${ }^{5,6}$ found an increase in overall club income, as well as a decrease in dependence on income from alcohol funding sources following participation in the program. Significant increases in membership were also reported, particularly among females, young people (under 18 years) and non-players. ${ }^{6}$ Given the lack of controlled trials investigating the impact of alcohol management on sporting club viability, and the equivocal findings of past studies on this issue, the aim of this study was to assess the impact of an alcohol management intervention on community sporting club revenue and membership using a randomised, experimental study design.

## Methods

The study was approved by the University of Newcastle Human Research Ethics Committee (H-2008-0432) and was prospectively registered (RCT registration number ACTRN12609000224224).

## Study design

The study reports secondary outcomes of a randomised-controlled trial of an alcohol accreditation intervention in community sporting clubs ${ }^{7}$ that was effective in reducing alcohol-related harm. ${ }^{8}$ The study employed a prospective, repeat cross-sectional, cluster randomised controlled trial design that allocated clubs either an alcohol accreditation intervention or a control. Data collectors, but not clubs or club members, were blind to group allocation.

## Sample and recruitment

Sporting clubs were eligible to enrol in the trial if they were a community-level, non-professional football club (rugby league, rugby union, soccer or AFL), had $>40$ members and were licensed to sell alcohol at their sporting venue. Eligible clubs were identified through searches of club lists provided by local councils, sporting associations, telephone directories and web-searches and invited to participate.

## Intervention

A full description of the intervention has been provided elsewhere. ${ }^{7}$ The intervention sought to improve alcohol management at participating sports clubs through a variety of strategies surrounding the sale of alcohol and associated policies. ${ }^{1}$ The alcohol management practices included (but were not limited to) prohibiting alcohol being served by or to people aged under 18 years; not permitting intoxicated people to enter premises; not selling alcohol to or permitting intoxicated people to remain on premises; ensuring all bar servers are trained in responsible service of alcohol; service of drinks in standard measures; ensuring the availability of tap water, non-alcoholic and low-alcoholic drinks, and pricing such drinks at least $10 \%$ less than full-strength alcoholic drinks; prohibiting drinking games and promotions; attempting to source non-alcohol-related sponsorship; development of an alcohol policy; and display of appropriate signage. Clubs were also provided with $\$ 1000$ seed funding.

## Control

Control clubs received printed resources on topics unrelated to the trial.

## Data collection and measures

A nominated club representative (club president or their delegate) completed a scripted telephone survey, administered using computer assisted telephone interviewing (CATI) technology by a trained research assistant at baseline (June-August 2009) and ~3 years following baseline data collection (July-October 2012).

## Characteristics of participating clubs

Club representatives were asked to report the football code of their club (rugby league, rugby union, AFL or soccer) and the postcode of their club fixture.

## Outcome measures: club membership and revenue

To assess club membership, club representatives were asked to report the number of current clubs players, number of current senior teams and usual number of spectators attending senior home games. To assess club revenue, representatives were asked to report their clubs approximate total income over the past year.

## Analysis

Data were analysed using SAS version 9.3 (SAS Institute, Cary, North Carolina, USA). Descriptive statistics were used to describe the study sample. The Australian Standard Geographical Classification system was used to classify clubs based on their geographic locality as Major Cities or Inner/Outer Regional cities. ${ }^{9}$ Linear regression models, adjusting for baseline values of the study outcomes (measures of membership and revenue) were used to assess the impact of the intervention on club membership and revenue.

## Results

A total of 87 clubs provided data at baseline, 42 were allocated the intervention and 45 the control condition. Of participating clubs, 9 clubs were lost to follow-up ( 3 intervention and 6 control clubs). Overall, $16 \%$ of clubs were from the Australian Football League (AFL), $30 \%$ were rugby union clubs, $32 \%$ were rugby league clubs and $22 \%$ were soccer clubs. Fifty two percent of clubs had greater than 180 members, and $82 \%$ were located in major cities. Club characteristics were similar between the intervention and control

Table 1. Club membership and income by group
Baseline $=2009$; follow-up $=2012$. $P$-value shows results from linear regression, controlling for baseline values of each variable

|  |  | Intervention group |  |  |  |  | Control group |  |  | $P$-value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $N$ | Baseline | $N$ | Follow-up | $N$ | Baseline | $N$ | Follow-up |  |
| Membership |  |  |  |  |  |  |  |  |  |  |
| Players | Mean (s.d.) | 42 | 259 (360) | 39 | 258 (321) | 45 | 272 (235) | 39 | 296 (278) | 0.331 |
| Spectators | Mean (s.d.) | 42 | 468 (604) | 39 | 516 (629) | 45 | 519 (687) | 39 | 348 (411) | 0.020 |
| Teams >18 | Mean (s.d.) | 42 | 5 (6) | 39 | 5 (8) | 45 | 6 (14) | 39 | 5 (5) | 0.733 |
| Revenue |  |  |  |  |  |  |  |  |  |  |
| Income (A\$) | Mean (s.d.) | 37 | 111311 (107 148) | 33 | 130667 (103 429) | 41 | 128307 (164 113) | 33 | 170924 (184733) | 0.378 |

groups. The characteristics of clubs that did and did not provide follow-up data were similar ( $P>0.05$ ).

## Club membership and income

At follow-up, the number of players or senior teams was not significantly different between groups (Table 1). The intervention group, however, showed a significantly higher mean number of spectators at follow-up than the control group. Overall income was not significantly different between groups at follow-up.

## Discussion

This is the first randomised trial assessing potential adverse consequences on club viability after implementing a comprehensive alcohol-management intervention. Contrary to concerns raised by club representatives, ${ }^{4}$ this study found no evidence to suggest that efforts to reduce alcohol-related harm in community sporting clubs will compromise club revenue and membership, or thereby other important health benefits that such organisations provide to the community. Conversely, clubs allocated to the intervention group reported significantly greater increases in club spectators at follow-up relative to the control.

The findings contrast those of Mentha and colleagues, ${ }^{10}$ who reported declining revenue and spectators following the introduction of alcohol-management strategies in sports clubs in Alice Springs. Unlike the Alice Springs initiative, where alcohol bans were put in place, the intervention trialled in this study improved alcohol management, ${ }^{8}$ rather than prohibited alcohol use. Crundall suggested that improved alcohol management may in fact enhance club viability and increase club membership by creating safer and more family friendly environments, ${ }^{6}$ an assertion, in part, supported by the follow-up findings of this study that a greater number of spectator attended games of intervention clubs.

The findings of the study should be considered in the context of several study methods. Strengths of the study was the use of a randomised design and a low rate of attrition. The primary limitation of the trail was the reliance on self-reported measures of club revenue, spectators and teams. However, any inaccuracies in reporting of these outcomes are likely to be evenly distributed between groups.

## Conclusions

Notwithstanding the limitations, the study provides no evidence to suggest that improving alcohol management at community sporting clubs will adversely impact on club viability or community participation in organised sport through reductions in club membership or revenue. Health promotion efforts to reduce alcohol misuse in these settings through improved alcohol management are therefore warranted.

## Acknowledgements

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## References

1. Kingsland M, Wolfenden $L$, Rowland $B C$, Gillham KE, Kennedy VJ, Ramsden RL, Colbran RW, Weir S, Wiggers JH. Alcohol consumption and sport: a crosssectional study of alcohol management practices associated with at-risk alcohol consumption at community football clubs. BMC Public Health 2013; 13: 762. doi:10.1186/1471-2458-13-762
2. Babor T. Alcohol: no ordinary commodity: research and public policy. Oxford, UK: Oxford University Press; 2010. doi:10.1093/acprof:oso/9780199551149.001.0001
3. Australian Bureau of Statistics. 4156.0 - Sports and physical recreation: a statistical overview, Australia, 2009. Canberra: Commonwealth of Australia. 2009. Available from: http://www.abs.gov.au/ausstats/abs@.nsf/0/E1CD61E6A5A5ECCACA257657 0016048A [Verified 8 February 2016]
4. Wolfenden L, Kingsland M, Rowland B, Kennedy V, Gillham K, Wiggers J. Addressing alcohol use in community sports clubs: attitudes of club representatives. Aust NZ J Publ Heal 2012; 36(1): 93-4. doi:10.1111/j.1753-6405.2012.00833.x
5. Australian Drug Foundation. Good Sports. Healthy Clubs. Strong Communities: Australian Drug Foundation. 2015. Available from: http://goodsports.com.au/ (Verified 6 July 2015].
6. Crundall I. Alcohol management in community sports clubs: impact on viability and participation. Health Promot $J$ Austr 2012; 23(2): 97-100.
7. Kingsland M, Wolfenden L, Rowland BC, Tindall J, Gillham KE, McElduff P, Rogerson JC, Wiggers JH. A cluster randomised controlled trial of a comprehensive accreditation intervention to reduce alcohol consumption at community sports clubs: study protocol. BMJ Open 2011; 1(2): doi:10.1136/bmjopen-2011-000328
8. Kingsland M, Wolfenden L, Tindall J, Rowland B, Lecathelinais C, Gillham K, Dodds P, Sidey MN, Rogerson JC, McElduff P, Crundall I, Wiggers JH. Tackling risky alcohol consumption in sport: a cluster randomised controlled trial in community football clubs. J Epidemiol Commun Health 2015; 69(10): 993-9. doi:10.1136/jech-2014-204984
9. Australian Bureau of Statistics. 1216.0 - Statistical Geography Volume 1 - Australian Standard Geographical Classification. Canberra: Commonwealth of Australia; 2006.
10. Mentha R, Wakerman J. An evaluation of the Australian Football League Central Australian Responsible Alcohol Strategy 2005-07. Health Promot J Austr 2009; 20(3): 208-13
