Alcohol outlet density: the challenge of linking research findings to policy

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Abstract: This paper provides a brief summary of the research literature that links the local level density of alcohol outlets to alcohol-related problems before focussing on the challenges of translating this epidemiological evidence into effective policy. Alongside the ideological and political challenges of regulating the alcohol industry, there are two key issues that need to be tackled: critical weaknesses in the evidence base and major challenges of policy implementation. These two areas are canvassed here, with implications for future research in this area and to the ongoing challenge of providing policy-relevant epidemiological evidence.

Over the past two decades, a substantial international research literature has developed highlighting links between the local-level availability of alcohol and rates of alcohol-related problems(1-3). Studies have used an array of spatial statistical approaches, both cross-sectional and longitudinal, to assess these relationships, generally finding that neighbourhoods with higher densities of alcohol outlets (usually measured per-capita or per roadway kilometre) have higher rates of problems(4-6). Studies have often focussed on violence, but there is increasing evidence that these links are broader, with recent work finding associations with a range of other harms including chronic disease, child maltreatment(7, 8), family violence(9, 10) and motor vehicle accidents(11). The field has embraced sophisticated spatial statistical approaches, controlling for the non-independence of spatial units and embracing methodological advances from geography, criminology and elsewhere.

There is substantial Australian evidence to support these associations(12-15). For example, a series of studies in Melbourne identified longitudinal relationships between the per-capita density of alcohol outlets and rates of assault(16), family violence(17) and chronic disease(18). These studies utilised sophisticated spatial panel models, providing crucial evidence that changes in the density of alcohol outlets over time were related to changes in rates of alcohol-related problems over time. For example, in a study exploring rates of hospital admissions due to violence and alcohol-related chronic disease over a fourteen year period found that a 10% increase in the density of packaged liquor outlets was associated with a 1.9% increase in hospital admissions due to alcohol-specific chronic disease and a 0.8% increase in admissions due to violence(18). These studies were particularly noteworthy for their identification of particular types of outlets as key drivers of particular types of harm. For example, rates of assault were most affected by the density of pubs and nightclubs, while violence in the home and chronic disease rates were more strongly linked with packaged liquor outlets.
Increasingly, the public health community is citing this evidence to call on governments to restrict or manage the number of alcohol outlets as a means to limit or reduce rates of alcohol-related harm (19, 20). These calls have been met by limited policy responses. Even where governments have made policy changes, they have largely been symbolic. For example, the Victorian government made some changes to planning regulations in 2010 and 2011, requiring planning permits for packaged liquor outlets which were previously not required and introducing a new clause to the state planning scheme that allowed for the consideration of ‘cumulative impact’ when making planning decisions related to alcohol outlets (21). These two changes, while seemingly promising tools for public health-oriented decision making, have had very little impact on the ongoing expansion of alcohol outlet numbers in Victoria (22, 23).

The main aim of this article is to outline the reasons that the epidemiological evidence linking alcohol outlet density to alcohol-related harm has had so little impact on policy in Australia. Clearly one of the key reasons is the prevailing political ideology in Australia, which favours deregulation and liberalisation over restrictive or ‘nanny-state’ policies (24-26). This ideology, exemplified by the emphasis on competition and reducing red tape seen (at least rhetorically) at all levels of government has been one of the key drivers of the dramatic expansion in outlet numbers seen in most Australian states. However, the focus of this paper is not these political and ideological issues but is instead the limitations of the evidence base and the challenges of policy implementation.

**Research limitations**

As noted briefly above, the evidence that increasing the availability via increasing the number of places that sell alcohol leads to increases in rates of alcohol-related harm is increasingly compelling. However, translating this evidence into practical policy recommendations has proved challenging, in part due to weaknesses in the research designs and data commonly used.

The key limitation of the outlet density literature relates to measurement. Almost all studies treat outlets within particular licence categories as interchangeable – in other words, a large warehouse-style bottle shop is counted as one packaged liquor outlet, as is a small wine store. Similarly, a quiet pub and a multi-level nightclub will each be counted as one outlet. This overarching limitation raises challenges for policymakers which are perfectly highlighted by arguments in a recent planning hearing in Victoria (23), where the licence applicants (who were applying for approval to open a large bottle shop) made the argument that opening their warehouse-style outlet would lead to less harm than opening two small bottle shops in the same area. These arguments are somewhat undermined by the one study that has been able to access data on actual alcohol sales (14), which found that the amount of alcohol sold in a neighbourhood was a better predictor of harm than just the density of outlets. This is a promising step, but one that has not been replicated elsewhere, largely due to the lack of reliable data on alcohol sales (27). Similarly, there is some evidence that a small subset of bars and pubs contribute disproportionately to rates of late night violence (28), and density research has thus far paid no attention to the characteristics of these outlets, a key consideration for decision making when considering applications for new outlets.

A further limitation has been the rather general nature of the literature – the evidence broadly suggests that an extra outlet will contribute to some extra amount of alcohol-related harm in its vicinity. However, this doesn’t logically lead directly to a policy response – should there be a moratorium on any new licences? Does it matter whether a proposed new outlet is in a particular type of
neighbourhood? Should we set a threshold of licence density at some level? There is a small amount of research identifying the differential effects of outlet density across different neighbourhood types (16, 29, 30), but attempts to empirically derive outlet density thresholds have been largely unsuccessful (in part due to the inability of such thresholds to consider more detailed outlet characteristics).

**Policy implementation**

Notwithstanding the research limitations discussed above, there is widespread acceptance that reducing the physical availability of alcohol is one means by which governments can limit rates of alcohol-related harm. However, the challenges of designing and implementing a policy in this space are many. In some jurisdictions, flat per-capita rates of particular outlet types are set by legislation (31). However, these are generally historical restrictions and the challenges of imposing these kinds of restrictions on an already existing market are manifold. The key decision – what limit to set – is one that cannot easily be answered empirically (as discussed above) and instead becomes one of values and trade-offs between economic stimulus and market diversity (see Harden and colleagues (32) for an excellent discussion of the positive impacts of a liberalised licensing environment) and alcohol problems. Further, limits need to be specified for each type of licence and for each type of suburb (e.g. the CBD would clearly have different licensing requirements than an outer suburb). The complexities quickly become overwhelming. Further, the setting of limits on licence numbers quickly increases the value of licences themselves, increasing the expense for new players to enter the industry and entrenching the existing licensees (a good example is in highly regulated taxi licensing regimes (33)). Further, industry responses to limited licence numbers may lead to unintended consequences (e.g. fewer, but much larger outlets), which may contribute to further problems (28).

This last concern – that restrictions will entrench the power of the existing licensees and limit innovation – was one of the key drivers of the deregulatory shifts of the 1980s and 1990s and is a key factor in any comprehensive regulatory response to outlet density. A more piecemeal and perhaps responsive approach is to empower local governments to have more influence in licensing decisions, ideally resulting in more responsive and appropriate regulation. This is currently being trialled in New Zealand (34), but the Australian experience has thus far been hamstrung by legal challenges to planning and licensing decisions, which have largely overturned local attempts to restrict new outlets (22, 23, 35, 36). Some states have begun to require social impact statements for new outlets in an attempt to provide more balanced decision making processes, but these have had limited impact. This is in part because the addition of an individual outlet is likely to have only a marginal impact on rates of harm, so refusing any particular licence becomes hard to justify, leading to a kind of death by a thousand cuts.

**Where to from here?**

As outlined here, the regulation of the physical availability of alcohol is a complex issue, with imperfect research and many implementation challenges. There are few international examples of successful policy interventions aimed at limiting outlet density, with historical restrictions maintained via regulatory inertia (31) or expansion of outlet numbers held back via government ownership of retail outlets (37). The shift towards local control of alcohol policies in New Zealand (34) may be a fruitful way forward, but has yet to be rigorously evaluated. There are a number of key areas where the evidence base can be improved – more meaningful measurement of outlet characteristics, a focus on neighbourhood specific instead of average effects and the incorporation of alcohol sales data alongside
outlet density data in models. However, even with improvements in the empirical evidence, policy decisions will require the negotiation of competing agendas and will need to trade off health and social harms against restrictions limiting the diversity and vibrancy of the alcohol industry, all while paying attention to unintended consequences.

It is worth noting that a similar policy process has recently played out with respect to late night trading in New South Wales, with restrictions in Kings Cross implemented in spite of fierce opposition from industry who have argued both that the policy will impact on the vibrancy of the industry and that it may have unintended harmful consequences(38). The ongoing evaluation of these restrictions and the corresponding political and public discourse may provide some useful lessons to policy makers, researchers and advocates interested in effective liquor licensing more broadly. However, given the empirical and implementation challenges explored here, the powerful vested interests and political inertia in this space it is difficult to imagine significant policy changes restricting alcohol outlet density in the near future.

References

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