



# **HEALTHY CHRISTCHURCH**

**Submission to the  
Alcohol Reform Bill**

**February 2011**

## Alcohol Law Reform Bill

### Introduction

---

The Healthy Christchurch submission has been adapted from the submission developed by the Canterbury District Health Board.

We welcome the opportunity to provide our views on the Alcohol Reform Bill.

Healthy Christchurch, modeled on a World Health Organisation initiative called Healthy Cities<sup>1</sup>, was developed as a mechanism for organisations who become signatories to the Healthy Christchurch Charter to work together to promote, protect and improve the health and well-being of the people of Christchurch. Healthy Christchurch was launched in February 2002 after extensive consultation; many significant projects have been carried out since then.

Currently nearly 200 organisations have signed the Healthy Christchurch Charter and agreed to work together to promote, protect and improve the health and wellbeing of the people of Christchurch.

Alcohol has always been an important part of New Zealand culture as it has in many other countries. It is not surprising that the *Alcohol Use in New Zealand Survey* showed more than four out of five New Zealanders aged 12-65 had consumed alcohol in the last 12 months. What *is* surprising is that two out of five drinkers reported that they felt the effects of alcohol after drinking the night before. This reflects the way in which the quantity and overall rate of consumption of alcohol has increased steadily through the 21<sup>st</sup> century and is climbing back towards the record levels of consumption of the early eighties. Rates have always been higher for males than females and Maori have consumed more than non-Maori for many decades (New Zealand Ministry of Health, 2007). However, the proportion of binge (more than six drinks) consumption among teenagers has increased dramatically since 1995 and women (particularly young women) are drinking larger quantities.

Thank you for the opportunity to submit.

---

<sup>1</sup> A “Healthy City” is defined by the World Health Organisation as one that is continually creating and improving those physical and social environments and expanding those community resources which enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential.

## Outline of the submission

Healthy Christchurch supports the “5+ solution” evidence-based policies to reverse the damage caused to New Zealanders by heavy drinking.

- Raise alcohol prices
- Raise the alcohol purchase age
- Reduce alcohol accessibility
- Reduce marketing and advertising of alcohol
- Increase drink driving countermeasures

PLUS: Increase treatment opportunities for heavy drinkers

Healthy Christchurch therefore supports the general intent of this Bill and believes it will assist in reducing alcohol related harm. However there are key evidence-based interventions which are not included in this Bill which would significantly enhance the overall intent and reduce alcohol related harm. These include:

- Minimum pricing for a standard drink,
- Reducing the commercial availability of alcohol,
- Limiting advertising, sponsorship and promotion, and
- Reducing the legal blood alcohol level for driving.

Comment is not made on every section of the Bill rather, this submission comments on sections we strongly support, oppose, or where we have suggested amendments.

## Evidence

Alcohol-related harm includes the immediate effects of intoxication such as increased risks of injury, violence, and death, and the long-term effects of alcohol on health (including increased risks of some cancers, liver disease and its impact on mental health). People who misuse alcohol also place the health of others at risk, through impaired judgement which can lead to dangerous driving and violence. Because of this, minimising the harm caused by alcohol and other drug use to individuals and the community was one of the objectives of the New Zealand Health Strategy (New Zealand Ministry of Health, 2000). The current government's health targets include shorter stays in emergency departments and improved access to elective surgery. A reduction in preventable hospital admissions, such as those caused by alcohol consumption, are implicit in these more recent targets.

About 1000 New Zealanders die from alcohol related causes every year with approximately half the deaths due to accidents and about quarter due to alcohol related cancers. Many hundreds of New Zealanders will be hospitalised through alcohol related road accidents and acute preventable conditions including mental health disorders, gross intoxication, alcohol poisoning, cuts and fractures. Many will be either the perpetrators or victims of violent and drunken behaviour (Connor, 2005).

It has been shown that increases in the density of alcohol outlets and bars are related to increased violence in cities (Gruenewald, 2006; Livingstone, 2008) with every six outlets being associated with an increase in assaults resulting in at least one extra overnight stay in hospital (Gruenewald, 2006). In New Zealand, the density of alcohol outlets is strongly related to teenage drinking (Huckle, 2008) and university student drinking (Kypri, 2008). Outlet density is also associated with drinking levels and with alcohol-related harm. These associations for university student drinking remain after controlling for demographic variables and pre-university drinking patterns, and are therefore unlikely to be due to self-selection (Kypri, 2008). A recent spatial analysis of off-license alcohol outlets in Christchurch (Willoughby, 2010) indicated that there was a clear association between alcohol outlet density and:

- Deprivation
- Maori ethnicity
- Youth (age between 20 and 24 years)

At 8.86 per 1000, there are nearly three times as many off-licenses per 1000 people in the poorest areas (NZDep10) compared with the wealthiest areas (NZDEP1) which have only 3.64 per 1000 people. A person living in the poorest area of Christchurch need only walk 348metres, on average, to get to a bottle store, compared with 904 metres in the richest areas of Christchurch. This has clear implications for equity of our community, and the cost to our health services.

Of patients attending the Auckland emergency department for the treatment of injuries, 35% reported having consumed alcohol prior to injury. Of those whose injuries were the result of violence, 82% reported that the other person was intoxicated, and 78% reported that they themselves had been drinking (Humphrey, 2003). Following the lowering of the minimum legal drinking age in 1999, a retrospective observational study of presentations to the Auckland Hospital emergency department found that the number of intoxicated 18 and 19 year olds presenting to the there increased in the year after the law change (Everitt, 2002).

This was a statistically significant increase in the proportion of presentations in this age-group (RR 1.51, 95% CI 1.11 – 2.03), whereas there was no evidence of an increase in the proportion of presentations for those aged over 19 years (RR 0.97, 95% CI 0.89 – 1.06).

In Christchurch, alcohol was involved in 14% of all motor vehicle crashes in urban areas and 20% of all motor vehicle crashes in rural areas in 2002 (Christchurch City Council, 2004). Of frequent attendees at Christchurch Hospital emergency department, 26% had a diagnosis of alcohol or substance abuse (Kennedy, 2004).

An editorial by two leading New Zealand injury prevention researchers entitled “Politics can be deadly” presents a strong argument that the combination of New Zealand’s low driver licensing age and low alcohol purchase age is a lethal one. New Zealand’s motor vehicle crash death rate for 15-24 year olds was 22.4 per 100,000 in 2003; the third highest rate of the 30 countries contributing to the Road Traffic and Accident Database (Langley, 2006).

A review of the global economic burden of alcohol found that alcohol contributes to between 1.3% and 3.3% of total health costs, 6.4% to 14.4% of total public order and safety costs, 0.3% to 1.4% of GDP for criminal damage costs, 1.0% to 1.7% of GDP for drink-driving costs, and 2.7% to 10.9% of GDP for workplace costs; these costs were in the range of \$210 to \$665 billion in 2002 (Baumberg, 2006). Interventions such as roadside breath testing, advertising bans, reduced hours of sale at retail outlets, and brief physician advice for hazardous drinkers have favourable cost-effectiveness ratios (Chisholm, 2004; Mundt, 2006).

Alcohol causes considerable harm to society. Some of this harm results in costs to the health sector, but much of the harm results in costs to other sectors including businesses and local government (Slack, 2009).

More research is needed around the impacts of alcohol on the community and the effect of alcohol misuse on people other than the drinker. Alcohol related harm affecting those other than the users includes high levels of domestic violence leading to the violent deaths of children and partners and the resulting social impact on communities and interference with quality of life due to noise, wilful damage and anti social behaviour on the streets. As a consequence of this lack of research we may fail to account for the alcohol related harm to others created by episodic drinking of alcohol in homes and neighbourhoods.

Key approaches to address alcohol that have been found effective include (Alcohol Advisory Council of New Zealand, 2004):

- de-normalizing alcohol use by changing the “drinking culture”,
- de-emphasizing alcohol’s role in social events, and,
- reducing outlet density (particularly effective protecting in young populations).

Mechanisms to effectively deliver these approaches involve intersectoral planning and urban design as well as legislation and regulation. Density of alcohol outlets and bars needs to be controlled, alcohol bans need to be set and enforced, monitoring of consumption is vital, control of labelling and marketing, as well as workplace policies (Ministry of Health, 2008).

In the past there has been a significant emphasis on education as a way to change behaviour. This has not worked. The World Health Organization (WHO) has stated that while information and education programmes have a role in providing information, reframing

alcohol-related problems and increasing attention to alcohol on the political and public agendas, they do not reduce alcohol-related harm (World Health Organization, 2009).

A meta-analysis of the effectiveness and cost-effectiveness of harm reduction approaches to alcohol commissioned by *The Lancet* concluded that “a substantial evidence base exists for the effectiveness of different policies in reducing the harm caused by alcohol. Essentially, policies which regulate the environment in which alcohol is marketed (economic and physical availability and marketing) are effective in reducing alcohol related harm”(Anderson et al., 2009). Moreover, these policies have their most marked effect on our most vulnerable populations – young people and heavy drinkers – whilst sparing much impact on moderate drinkers, save reducing harm to them from other, hazardous drinkers.

## **Processes**

---

### **Healthy Christchurch Champions**

In October 2008 the Healthy Christchurch Champions agreed and statement of intent:

‘The Champions of Healthy Christchurch have agreed to add their collective voice to the many concerns being raised about the issue of alcohol misuse in our city and related harm, and more importantly, to the solutions. Among others, this has the effect of strengthening the link between Safer Christchurch and Healthy Christchurch (both are World Health Organisation initiatives). Healthy Christchurch is a network of over 200 organisations (many of which are also involved in Safer Christchurch) who undertake 'to work together to promote, protect and improve the health and wellbeing of the people of Christchurch. In 2010 following a number of consultation hui these organisations collectively agreed that alcohol was a major issue of concern and that they would work together to reduce alcohol related harms.

In 2010 the Healthy Christchurch Champions agreed on the following six areas of focus to progress their Statement of Intent:

1. Advocate for a liquor policy/ strategy for Christchurch
2. Support the maintenance/ enhancement of the current Tri-Agency model for alcohol enforcement in Christchurch
3. A continuous plan for communication
4. Advocate to central government on alcohol-related issues
5. Support the collecting and analysis of statistical information about alcohol related harms from Emergency Department/After Hours clinics
6. Raise awareness and support of Healthy Christchurch Signatories and Community-based initiatives in Christchurch

The Healthy Christchurch Champions are:

*Bob Parker – Christchurch Mayor*

*Prof. Rex Williams – Environment Canterbury Commissioner*

*Warren Lindberg – Ministry of Health Group Manager*

*Prof. Andrew Hornblow – Partnership Health Canterbury PHO Chairperson*

*Dr Martin Seers – Pegasus Health Limited Managing Director*

*Mark Solomon – Te Runanga o Ngai Tahu Kaiwhakahaere*

*Prof. Peter Joyce – University of Otago, Christchurch Dean*

*Supt. Dave Cliff – NZ Police Canterbury Regional District Commander  
David Meates – Canterbury District Health Board CEO  
Tony Marryatt – Christchurch City Council CEO*

### **A Maori Perspective**

When discussing alcohol, it is important to consider the issue within the context of New Zealand's history. Maori leaders have been speaking out against and calling for change to the distribution and free access to alcohol from earliest times.

Prior to colonisation Maori did not have access to alcohol, therefore the introduction of alcohol was directly contributable to the settlement/colonisation process.

By the 1870s there was growing resistance to alcohol among iwi. The following are examples of this growing resistance.

Tuhawaiki (Ngai Tahu Paramount Chief, 1830):-  
*Here we are, impoverished, survivors,  
Yet in my time we were strong  
But an enemy even more devious than Te Rauparaha seized the day  
**The Pakeha, visiting us with his alcohol and his vile diseases**  
And you think, thus we came to a bad end.....*

Letter to Parliament from Waikato and Waipa Chiefs, 1856:-  
*This is our word to you – do not let any intoxicating drinks come to this land to Waipa, but let it be kept there [Auckland] at the inns. Let the Maori law, which has been asserted to by all the Chiefs of this place [Waipa] and Waikato, be sacred, namely that the Natives be not allowed to drink spirits.... **This [alcohol] is the worst thing hitherto brought to New Zealand...** we have determined, therefore, not to allow it to be used.*

Petition to Parliament from Ngati Mahuta, 1856:-  
*It is a drink for only the foolish, and for the evil spirit; - it is a drink which causes men to die; - it is a drink that brings about murder ... we advocate the principle if its being done away with, and that it not be given to the Native people.*

In 1879 all South Island tribes petitioned parliament for the total prohibition of alcohol in the Southern provinces.

The examples given above show the impact of alcohol use on Maori was identified early as being negative.

Maori desire to be partners in the shaping of local alcohol plans and policies – at a territorial level. There are parallels between the RMA process and cultural values that underpin that process – and the need to apply the same 'standard of care' when putting liquor into communities (and other initiatives that impact on whanau wellbeing).

180 years since the first pleas to the government (of the day) to do something about the negative effect alcohol is having on Maori, little has changed.

Maori are still asking for the same thing!

## Recommendations

---

Healthy Christchurch considers that while a number of the measures contained in the Bill will assist towards reducing the negative impacts of alcohol abuse in New Zealand, the Bill does not go far enough to make a significant change. Healthy Christchurch will not comment clause by clause but only on the following thirteen points of particular health concern and relevance.

### 1. Alcohol Pricing

Healthy Christchurch recommends the following policies be adopted with regard to pricing:

1. Excise tax should be increased on all alcohol products over 2.5% by volume **and**
2. Excise tax should be *removed* on all alcohol products under 2.5% by volume (to encourage consumption of low alcohol products **and**
3. A minimum unit price should be established to reduce the availability of cheap alcohol

#### Comment

Limiting price (as one prominent variable of availability) will offer immediate relief from some associated problems.

Imposing a minimum unit price could help reduce both cumulative harm linked to regular and prolonged 'lifetime' alcohol consumption, as well as the more immediate harms caused by excessive per-occasion alcohol consumption, particularly in uncontrolled drinking settings.

#### Minimum unit pricing and levels of consumption

Price effects consumption. Discretionary income is limited for most drinkers, particularly the high (alcohol harm) risk demographic from eighteen to late twenties. With respect to alcohol purchasing decisions, many in this age segment seek out cheap alcohol in order to make their limited dollars go further. For an individual drinker, a strategically set minimum retail price for alcohol (by unit) would limit the total units of alcohol available to be consumed based on the relationship between limited price and limited spend. For example:

“Dillon is 21 and allocates \$40 of his income each week to spend on beer from an off-licence. He’s not brand driven. He can usually find a dozen pack of 330 ml for around \$10, or the equivalent in another size. The avalanche of junk mail aids in his quest.

For his \$40, Dillon regularly buys 48x330 ml of beer. Because he can’t afford any more, this is his limit until next payday. The beer is 4% alc/vol meaning that Dillon will consume approx 52 units of alcohol that week (330 ml @4% = 1.1 units).

One day the price goes up. Unbeknownst to Dillon, a minimum retail unit price is imposed on all alcohol (calculated at \$1.20 per unit of pure alcohol). No matter where he looks he can’t buy beer for under \$15.85 per dozen (other than light beer).

Still limited to his \$40 weekly spend, Dillon goes ahead and purchases 30x330ml (4% alc/vol), which is now the most beer he can buy for \$40. This week he consumes 33

units of alcohol instead of his usual 52 units, but, he does not drink as many on each occasion, thus stretching them over the week.

Dillon continues to search for cheap beer. He's considered switching to RTDs, but it seems they've also gone up in price. He's noticed a few new beer products on the market that are under \$12 per dozen, but they're all around 3.5%. He will think about this.

In this scenario, everyone wins - Dillon's long-term health outlook improves, the retailer's margin increases, and GST revenues are enhanced."

### Minimum unit price and pre-loading

By introducing minimum unit pricing at a retail level, the widening price differential (per unit of alcohol) between on-licenses and off-licences could be reduced. Any intervention that reduces the incentive for drinkers to pre-load at home or other private settings before embarking for late-night licensed venues is worthwhile.

A disproportionately wide price differential has been created by the availability of very cheap alcohol from off-licenses. There is now a strong financial (and emerging social) incentive for drinkers to pre-load before 'going out' to bars. Liberal access to very cheap liquor from off-licenses, particularly from supermarkets, creates a disincentive to drink in controlled on-licensed settings, and has changed the way bar patrons plan their evening.

Drinkers still seek the entertainment and social experience offered by city bars. The costs associated with providing these venues and entertainment is significant and determines a necessary price differential between off and on licenses' prices.

This widening price gap created by very cheap alcohol from off-licenses contributes significantly to increased public disorder and offending. Canterbury District Health Board licensing staff report that Christchurch's bar and door staff encounter waves of patrons arriving late at night. Often, these patrons are too well primed (pre-loaded) to be comfortably or legally admitted to any controlled licensed environment. In many cases the responsible intervention by staff results in conflict and disorder, with no goods or services exchanged.

Pre-loading causes drinkers heading to city bars to arrive much later at night than one might expect, and with higher levels of intoxication than typical patrons. This puts enormous pressure on bars and staff, stretches limited police resources, and tests city infrastructure.

## **2. Advertising, Sponsorship and Promotion of Alcohol**

Healthy Christchurch recommends the following policies:

- Require health warning labels on alcohol products
- No alcohol promotion to be permitted on television, cinema, or through sponsorship of cultural or sporting events. Marketing of alcohol at youth to be expressly prohibited. The limited advertising that is permitted in print media, on billboards, and on radio broadcasts must be limited to messages that provide information directly related to the product rather than selling values.

These are similar to the Law commission's recommendations 104 to 109.

### **3. Exemptions**

Healthy Christchurch recommends that:

- Clause 266 is amended to include otherwise exempted premises (rather than just licensed premises)
- Clause 396 (2) is amended to enable enforcement proceedings against Permanent Club Chartered premises

Comment:

Permanent Club Charter - Alcohol availability should be treated in a consistent manner. In our area, a number of premises enjoy the benefits of a Permanent Charter. Some of these premises have come to the notice of regulatory agencies in respect of intoxication and supplies to minors, however the provision of s132 of the current Act (Applications for suspension, cancellation or variation) do not apply because the premise is not licensed.

#### **4. Object of the Act (section 4)**

Healthy Christchurch supports the object of the Bill. In particular, death, disease, illness or injury directly or indirectly caused by alcohol must be minimised. One thousand (often young) New Zealanders dying a year as a direct consequence of alcohol is a serious drain on this country's potential.

Healthy Christchurch endorses the view that the object of a Sale of Liquor Act needs to be more precise. Rather than the statement "the reduction of liquor abuse", the objects should include:

- Minimise crime and disorder
- Promote public safety
- Protect families and children from harm
- Encourage a responsible attitude to alcohol
- Ensure the liquor industry operates responsibly

In addition, a statement to the effect that "alcohol is not an ordinary commodity, but rather a mind altering drug" should be included in the wording of the object of the Act.

#### **5. Purchase Age**

Clause 9 – Healthy Christchurch supports the purchase age for off-licensed premises to be 20 years

Clause 10 – Healthy Christchurch recommends the purchase age for on licensed premises to be 20 years

Comment:

A higher legislated age to access alcohol is the most responsible option. This option better addresses potential harm to young drinkers in the context of risks associated with their physiological (particularly relating to brain development), cognitive, and social maturity and is supported by international evidence, providing that the minimum age is enforceable (World Health Organization, 2009). This will support a change in the drinking culture, and a purchase age of (at least) 20 years would also potentially impact New Zealanders' perception of what is an appropriate age to initiate or introduce young people to alcohol in private settings.

#### **6. Grocery Store/Supermarkets**

Healthy Christchurch recommends that the legislation should require grocery stores and supermarkets to display liquor in one area only, not adjacent to entrances, exits and products that attract the interest of young people.

The proliferation of alcohol outlets, in particular through supermarkets has lead to alcohol being considered as an ordinary commodity. Within grocery stores and supermarkets, displays of alcohol can be seen throughout the premises. By their nature, these premises are undesignated, therefore children are free to roam amongst the alcohol displays.

## **7. Trading Hours**

Healthy Christchurch recommends that:

- Off-licences should be required to close no later than 10pm and not open until 9am
- On licences and licensed clubs should be required to close no later than 4am with a mandatory one-way door from 2am, and not reopen until 9am. (One-way door means that people cannot enter after 2am but those already in the premise at this time do not have to leave until the premise's closing time.

Comment: There needs to be consistency in opening times between on- and off- licensed premises. On licensing provides the best monitoring of overconsumption immediately after purchase – no off-licence should be open later than any on-licence. The one way door policy instigated in Christchurch has reduced the overall number of arrests associated with intoxication.

## **8. Food Availability**

Healthy Christchurch supports clause 53 however “reasonable range of food” needs clarification to ensure there is not a return to the “variety of flavours of potato crisp” approach of the mid 90’s.

## **9. Alcohol Policy**

Healthy Christchurch supports clause 75 however recommends that territorial authorities must rather than may have a policy. This will ensure that consultation within the community occurs.

## **10. Medical Officer of Health must inquire**

Healthy Christchurch supports clauses 98(1)(c) and 129(1)(c) which require the Medical Officer of Health to enquire into all on-, club, off- and special licences but only require a report if there are matters in opposition. This will keep the cost of delivering public health services down (with respect to alcohol) while retaining effectiveness.

## **11. Appointment of Managers**

Healthy Christchurch supports clause 198 regarding one Duty Manager but, in addition, recommends consideration of the ability for the issuing authority to impose conditions requiring more than one holder of a General Managers Certificate to be on duty. This would apply to large premises, especially multi storied tavern or nightclub type premises.

Healthy Christchurch also supports the ability of the issuing authority to require the presence of a Duty Manager during specific times on Club and BYO endorsed premises – [Clause 199(2)]

## **12. Notice of appointment, etc, of manager, temporary manager, or acting manager**

Healthy Christchurch recommends that Police and Licensing Inspectors be given the power to issue infringement notices for breaches of clause 215.

Clause 215 appears identical to the current section 130. The Liquor Licensing Authority has referred to the appointment of managers as a cornerstone of the Act, but no penalty has been prescribed for failure to comply with section 215.

## **13. Supply to Minors**

There is now good evidence that exposure to alcohol in adolescence damages the human brain (Odgers et al., 2008), with physical, psychological, educational and social consequences. Healthy Christchurch supports clause 224 and in particular sub clause 4 however we recommend an amendment to (g) to specify the alcohol content as a percentage by volume of the alcohol supplied.

## **14. Sales of spirits otherwise than in vessel exceeding 500 ml**

Healthy Christchurch supports the retention of Clause 237 which is similar to section 169 of the current legislation. However, Healthy Christchurch has concerns with the relationship between this section and the definition of “Spirit” included in clause 5.

This definition would allow spirits under 37% ethanol by volume to be sold in larger vessels e.g.jugs, a practice legislation sought to prevent.

Healthy Christchurch recommends that the definition of spirits returns to that of the 1962 Sale of Liquor Act to be: ***“any distilled or spirituous liquor other than fortified wine”***

## **15. Proof of Age**

Healthy Christchurch supports clause 240 which places a clear expectation on licensees, managers and staff to require evidence of age documents rather than any verbal attestation. If complied with this should further reduce the supply of liquor to those under the legal purchase age.

**List of Healthy Christchurch Signatories who have endorsed this Submission:**

Prof. Peter Joyce - Dean of the University of Otago, Christchurch.  
Environment Canterbury  
Partnership Health Canterbury PHO  
Community Solutions  
Anxiety support Canterbury  
Te Awa O Te Ora Trust  
Phillipstown Community Centre  
Restorative Justice Services Otautahi Christchurch  
Delta Community Support Trust  
New Zealand Aids Foundation South Te Toka  
Linkage Trust Webhealth  
Cross Over Trust  
Knox Church  
Revive and Thrive Coaching  
Male Survivors of Sexual Abuse Trust  
Association of Blind Citizens - Canterbury Branch  
Royal NZ Plunket Society, Canterbury Area  
Early Start Project  
Christchurch City Mission  
Prisoners Aid and Rehabilitation Trust

## References

- Alcohol Advisory Council of New Zealand (2004). *Alcohol Use and Tertiary Students in Aotearoa – New Zealand*. Wellington: Alcohol Advisory Council of New Zealand. <http://www.alac.org.nz/DBTextworks/PDF/TertiaryStudent.pdf>
- Anderson, P., Chisholm, D., & Fuhr, D. C. (2009). Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *The Lancet*, 373, 2234 - 2246.
- Baumberg, B. (2006). The global economic burden of alcohol: a review. *Drug and Alcohol Review*, 25, 537-551.
- Chisholm, D., Rehm, J., Van Ommeren, M., Monteiro, M., (2004). Reducing the global burden of hazardous alcohol use: a comparative cost-effectiveness analysis. *Journal of Studies on Alcohol and Drugs*, 65, 782-793.
- Christchurch City Council (2004). Christchurch Road Safety Strategy: Christchurch City Council. <http://www.ccc.govt.nz/Publications/RoadSafetyStrategy/RoadSafetyStrategy04Speed.pdf>
- Connor, J., Broad, J., Jackson, R., (2005). *The Burden of Death, Disease and Disability due to Alcohol in New Zealand*. Wellington: ALAC.
- Everitt, R., Jones, P., (2002). Changing the minimum legal drinking age - its effect on a central city emergency department. *New Zealand Medical Journal*, 115, 9-10.
- Gruenewald, P. J., Remer, L., (2006). Changes in outlet densities affect violence rates. *Alcoholism-Clinical and Experimental Research*, 30, 1184-1193.
- Huckle, T., Huakau, J., Sweetsur, P., Huisman, O., Cassell, S., (2008). Density of alcohol outlets and teenage drinking: living in an alcogenic environment is associated with higher consumption in a metropolitan setting. *Addictions*, 103, 1614-1621.
- Humphrey, G., Casswell, S., Han, D.Y., (2003). Alcohol and injury among attendees at a New Zealand emergency department. *New Zealand Medical Journal*, 116, 1-10.
- Kennedy, D., Ardagh, D. (2004). Frequent attenders at Christchurch Hospital's emergency department: a 4-year study of attendance patterns. *New Zealand Medical Journal*, 117, 1-8.
- Kypri, K., Bell, L.M., Hay, G. Baxter, J., (2008). Alcohol outlet density and university student drinking: A national study. *Addictions*, 103, 1131-1138.
- Langley, J., Kypri, K., (2006). Politics can be deadly. *Injury Prevention*, 12, 69-70.
- Livingstone, M. (2008). A longitudinal analysis of alcohol outlet density and assault. *Alcoholism-Clinical and Experimental Research*, 32, 1074-1079.

- Ministry of Health (2008). *A Portrait of Health. Key Results of the 2006/07 New Zealand Health Survey*. Wellington: New Zealand Ministry of Health.
- Mundt, M. (2006). Analyzing the costs and benefits of brief intervention. *Alcohol Research and Health*, 1, 34-36.
- New Zealand Ministry of Health (2000). The New Zealand Health Strategy. In M. o. Health (Ed.).  
[http://www.moh.govt.nz/moh.nsf/pagesmh/2285/\\$File/newzealandhealthstrategy.pdf](http://www.moh.govt.nz/moh.nsf/pagesmh/2285/$File/newzealandhealthstrategy.pdf)
- New Zealand Ministry of Health (2007). *Alcohol Use in New Zealand: Analysis of the 2004 New Zealand Health Behaviours Survey – Alcohol Use*. Wellington: Ministry of Health.
- Odgers, C. L., Caspi, A., Nagin, D. S., Piquero, P. R., Slutske, W. S., Milne, B. J., Dickson, N., Poulton, R., & Moffitt, T. E. (2008). Is it important to prevent early exposure to drugs and alcohol among adolescents? *Psychological Science*, 19, 1037-1044.
- Slack, A., Nana, G. Webster, M., Stokes, F., Wu, J., (2009). *Costs of Harmful Alcohol and Other Drug Use*. <http://www.berl.co.nz/874a1.page>
- Willoughby, M. (2010). *'Time for a drink?' - A spatial analysis of off-license alcohol outlet locations in Christchurch; implications for health and public policy*. Christchurch: University of Canterbury Health Sciences Centre.
- World Health Organization (2009). *Evidence for the effectiveness and cost-effectiveness of interventions to reduce alcohol-related harm*. Copenhagen: WHO Regional Office for Europe.