

Canterbury

District Health Board

Te Poari Hauora o Waitaha

Submission from

Canterbury District Health Board

**(Community and Public Health (CPH) Division on behalf of
the whole of Canterbury DHB)**

And incorporating the submission from the

Medical Officer of Health for Canterbury,

Dr. Alistair Humphrey

August 2013

Kaikoura District Council's draft

Local Alcohol Policy 2013

SUBMISSION DETAILS

This document covers the Canterbury District Health Board's (CDHB) written submission on Kaikoura's District Council's (KDC) draft Local Alcohol Policy and it is the combination of multiple inputs from across the service including the Medical Officer of Health for Canterbury, Dr. Alistair Humphrey.

The CDHB as a whole represents over 8300 employees across a diverse range of services. Every division of the CDHB is affected by alcohol misuse and alcohol-related harm.

The CDHB response is based on extensive evidence for alcohol-related harm. It is important that evidence-based submissions are given a higher weighting than those based on opinion or hearsay in the final formulation of the Local Alcohol Policy.

There are important evidence based issues, clinical issues and public health issues which need to be articulated by the CDHB and therefore requests two slots at the hearings .

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Introduction

The Canterbury District Health Board (CDHB) and Medical Officer of Health greatly welcome the opportunity to comment on the Kaikoura District Council's (KDC) draft Local Alcohol Policy (LAP) with reference to the health of the people of Kaikoura .

This contribution to the submissions process are entirely consistent with the policy goals of this draft Local Alcohol Policy and of the Sale and Supply of Alcohol Act 2012 from which the Local Alcohol Policy originates, namely that (4.1) *the sale, supply, and consumption of alcohol should be undertaken safely and responsibly; and the harm caused by the excessive or inappropriate consumption of alcohol should be minimised.*

In addition District Health Boards have a legal responsibility under s22 of the New Zealand Public Health and Disabilities Act 2000 *to improve, promote, and protect the health of people and communities* and CDHB is making this submission as alcohol has an obvious effect on people's health and the LAP is an important tool with which New Zealand communities can minimise alcohol related harm.

Alcohol directly causes significant death, disease, illness and injury to Cantabrians and therefore represents a significant burden to the work of the whole DHB, which employs over 8300 Canterbury residents. In making this submission, we have combined representations from staff across the whole District Health Board.

Responding in a professional capacity, our primary concern is for the health and welfare of the people of Canterbury, be they residents, visitors and/or part of a visiting workforce. Preventable admissions to our hospitals have a direct financial cost to every New Zealand taxpayer. The human cost is immeasurable.

Consequently, we anticipate that considerable weighting will be given to this consultation response, including during that time allocated for the hearings, at which the full impact of alcohol on local health services, on public health and the ways in which the District Health Board will support a truly harm minimising Local Alcohol Policy will be explored.

Overview of the Kaikoura District Council's (KDC) draft Local Alcohol Policy (LAP)

Alcohol is by far the most commonly used recreational drug in New Zealand, but also the drug that causes the most amount of damage. There are 70,000 physical and sexual assaults each year associated with alcohol use in New Zealand (Connor J, 2009) and even the most conservative estimate of the numbers drinking at hazardous levels give a figure of 700,000 (25%) of adult Kiwis drinking in this way (Wells JE, 2006).

In Kaikoura, the development of new tools to track alcohol-related in-patient admissions is giving us direct evidence and detail of the impact of alcohol on the health of the local population. What it tells us is that in addition to the crime, violence, anti-social behaviour, deaths, accidents, alcohol dependence and intoxication that results from alcohol misuse in Kaikoura, there is also a significant amount of chronic disease and ill-health experienced by many Kaikoura residents (see Appendix 1).

The 2012 Sale and Supply of Alcohol Act's goals are clear; to rebalance much of the previous few decades' liberalising alcohol laws and to reduce the harm that has arisen from them.

Not least in those aspirations is the need to re-position alcohol back to its status as a product with a very high potential for causing harm. To quote the recommendation report, *"Curbing the Harm"*, on which the Sale and Supply of Alcohol Act was based, *'The trend towards regarding alcohol as a normal food or beverage product needs to be reversed. In truth, alcohol is no ordinary commodity. Alcohol is a psychoactive drug that easily becomes addictive and that can produce dangerous behaviours in those who drink too much.'*

The 2012 Act goes some way to repositioning alcohol and addressing the harm it causes directly, but it also gives legal recognition to Local Alcohol Policies, as a way of passing some of that responsibility on to Territorial Local Authorities, and determines that any policy developed legitimately through the LAP process need only be justified as being reasonable for the purposes of reducing alcohol-related harm.

Kaikoura needs a Local Alcohol Policy to control licensed premises and alcohol availability, as part of a broader package of harm minimizing measures. The evidence for this approach is clear and well documented; reduce alcohol availability and we will reduce alcohol-related harm (see Appendix 2).

Clarification needed: Notes at the end of policy sections 1.1 and 1.2 are ambiguous as it is not clear if the intention of this note is to permit on-licenses to trade outside of their draft LAP's proposed hours OR if they are simply advising licensees not to expect a current license to be extended to those hours (where applicable).

Once the Local Alcohol Policy has come into force we do not agree that any licensees should be permitted to trade outside of those designated maximum hours and are responses are made on that basis.

Response to 'Policy 1.1: On-licences' in the Policy Statement

The Canterbury District Health Board **supports** Kaikoura District Council's policy to permit taverns and hotels to operate for the hours outlined in the draft Local Alcohol Policy **for Kaikoura Town alone.**

We understand that those hours reflect the commercial needs of a tourist destination. However, we feel in the interests of ensuring that the policy reflects the needs of the local community we recommend that those hours **should not be** applied to any areas and settlements outside Kaikoura Town.

Canterbury District Health Board **supports** the proposed trading hours for restaurants, cafes and hotel mini-bars.

Response to 'Policy 1.2: Off-licences' in the Policy Statement

The Canterbury District Health Board commends KDC's policy to permit off-licensed premises to trade only between the hours of 9.00am and 10.00pm as this reflects the needs of the local community. However, we believe that the Policy should go further and **reduce those hours from 9.00am to 9.00pm** for the following reasons...

A global evidence base of detailed research and analysis of alcohol supply and impact data tells us the simple obvious truth that:

the more alcohol is made available to a population...

the more excess (i.e. hazardous levels of) alcohol will be consumed and,

the more harm will be experienced by that population

regardless of the time of day that alcohol is sold, and that evidence exists for both on- and off-licensed premises. (See Appendix 2 for an overview of that evidence).

In highlighting this fact it is acknowledged that a balance has to be struck between the need to reduce alcohol-related harm and the need not to inconvenience consumers unreasonably.

However, **alcohol is not an ordinary commodity** and although supermarkets in particular have conditioned consumers to view alcohol in that way, for the reasons set out below, it should not be the expectation of consumers to be able to purchase alcohol at all hours of the day.

Specifically, **we support the earliest alcohol sales in off-licenses being after 9am** because:-

- It will send out a message to impressionable young people that alcohol (being a psychoactive substance, etc.) is no ordinary commodity and is a dangerous product and deserves their respect
- It will align to the opening hours of many bottle stores
- It will prevent the purchase of alcohol before the school day starts and therefore go some way to protecting minors
- It will provide a barrier to access for people at risk of (developing) dependent / harmful drinking behaviours

Specifically, **we support the latest alcohol sales in off-licenses being no later than 9pm** in Kaikoura because:-

- Reducing alcohol availability after 9pm to supervised (on-licensed) settings will reduce alcohol-related crime and anti-social behaviour
- It will align supermarket alcohol sales hours to the time that many bottle stores already close
- It reinforces the 'no ordinary commodity' message
- It will go some way to reducing pre-loading and impulse purchasing by young adults intending to access their local on-licensed entertainment precincts,

...and it will do all of that without inconveniencing mainstream consumers who can easily adapt their alcohol purchasing habits around those hours.

We also have direct evidence that reducing off-license hours back to 9pm has a significant positive impact. The Canton of Geneva in Switzerland prohibited alcohol sales after 9pm (and banned all sales from gas stations and video stores) and consequently saw an estimated 25-40% reduction in hospitalisations for alcohol intoxication (Wicki & Gmel, 2011). See Appendix 2: Section A for further evidence.

Those with a vested interest in maintaining off-license hours to match their core business hours have incorrectly stated that the liberalising 1989 Sale of Liquor Act brought about a doubling in the number of off-licenses between 1990 and 2010 without placing a significant additional health burden on the population. Again our own Kaikoura hospital episode data exposes the inaccuracy of that assertion (Appendix 1: Figure 1) and shows a considerable increase in the burden of alcohol-related conditions in the Kaikoura population over time.

Finally, it is appropriate to note that Christchurch City Council is currently consulting on a draft Local Alcohol Policy that is proposing to change off-license hours of sale to 9.00am – 9.00pm, and these proposed hours are fully supported by the Canterbury DHB and the Police. Furthermore, we will be making these same recommendations to all of the Territorial Authorities across Canterbury. These hours would reduce alcohol-related harm

without causing any significant inconvenience to off-license (including supermarket) customers.

Despite protests from the supermarkets and a lack of concrete, publicly available data from them, it is clear that they, as the largest provider of off-licensed alcohol in sales terms, contribute to a significant proportion of the sales of alcohol that fuel pre-loading and binge drinking.

The Ministry of Justice guidance is explicit that Local Alcohol Policies enable Territorial Local Authorities to determine their own maximum sales hours, even if they don't correspond to the opening hours of supermarkets; Specifically it says that local community input into licensing conditions, that should be achieved through the development of the draft Local Alcohol Policy *"means local outlets of national businesses (e.g., supermarket chains) may have different opening hours or conditions depending on where they are located."*

To further the issue about supermarkets, the Law Commission review on the sale and supply of alcohol, Alcohol in Our Lives: Curbing the Harm, found that "[alcohol] *has been "normalised" after being available for more than 20 years among the foods sold in our supermarkets and local groceries. In a retail sense, alcohol has become no different from bread or milk and is often sold at cheaper prices than these commodities.*"

The Sale & Supply of Alcohol Act 2012 that this Law Commission review informed will introduce the first correction in this miss-step in the governance of the way alcohol is provided in that, from December 2013, it will require supermarkets to section off alcohol from the rest of the goods it provides and away from the entrance points and main routes through the store.

The Law Commission review goes on to say that *"regulating the physical availability of alcohol through restrictions on time, place and density of outlets"* is one of the *"major policy levers available to reduce alcohol-related harm"* and it is on that basis that the CDHB its own recommendation in the draft Local Alcohol Policy for Kaikoura for hours of sale from 9.00am – 9.00pm.

Response to 'Policy 1.3: Club licenses' in the Policy Statement

The Canterbury District Health Board **supports** KDC's policy on the hours of operation of Club licenses

Response to ' Policy 2: Special licenses' in the Policy Statement

The Canterbury District Health Board **supports** Kaikoura District Council's policy on Special Licenses

Response to ‘ Policy 3: Hours of Outdoor Licensed Premises’ in the Policy Statement

The Canterbury District Health Board **supports** Kaikoura District Council’s policy on these points and would commend the Council to listen to its residents on this issue.

Response to ‘Policy 4 Discretionary Conditions’ in the Policy Statement

As a positive outcome of the way that the regulatory framework around alcohol licensing has been enforced in Canterbury, on-licensed premises, like taverns, restaurants etc. across the region are on the whole, well managed and incidents inside the large majority of these types of venues occur at acceptably low frequencies, and problem premises are promptly and effectively dealt with.

What is also clear from the data from sources such as the Liquor Licensing Inspectors, the Police and from Christchurch Emergency Department is that poorer managed on-licensed premises are serving customers up to and beyond the point of intoxication, and this practice is at the root of the problems that the Council faces in creating a genuinely safe and amenable environment, both during and after these premises’ hours of operation.

The key to tackling this issue and minimising harm is to ensure that the community and enforcement and regulatory services with a stakeholding interest in alcohol are fully supported in dealing with any concerns they have about problematic premises (on- or off-licenses) and one way to strengthen our response to problematic premises is through discretionary conditions. Not only do discretionary conditions allow for the careful management of off- and on-licenses that cause problems in their communities, the existence and awareness of these measures, and the costs to on-licensees associated with introducing them, also acts as a useful deterrent to licensees losing control of their host responsibilities.

We commend KDC’s decision to include one-way doors as one optional means of containing the negative effects of intoxication on the street and having seen the balance of evidence on the impact of one way door in reducing serious alcohol-related crime we are confident that its use is effective.

One gap in the list of options for discretionary conditions has been identified. A new on-line training tool for bar staff will be available by the time this Local Alcohol Policy comes into effect. Therefore, licensees should be required to ensure that all new staff, when they start their employment, have completed the training, or do so within a short period of the commencement of their employment. That way we can ensure that the best available standard is being met.

The CDHB recommends that this condition be applied to every new license and license renewal as that way we could ensure that staff moving around the on- and off-license industry were consistently skilled and aware of the standards expected of them.

Other issues that need to be addressed in the Kaikoura Local Alcohol Policy

A. License Density

Kaikoura DC needs to consider whether any parts of Kaikoura, their more deprived areas in particular, need to consider whether the numbers and density of alcohol outlets are impacting negatively on the health of their population and the social problems that may affect the area.

Appendix 2 in Section B highlights a comprehensive evidence base between alcohol outlet density, particularly bottle stores and taverns and the incidence of alcohol-related crime, violence, domestic violence, anti-social behaviour, road traffic accidents, etc. and harm to vulnerable groups like dependent drinkers, children and young people.

Even well run bottle stores and taverns can have a negative impact on health and amenity value in an area if there are too many of them. Having too many bottle stores drives the cost of alcohol down to the point of encouraging impulse purchasing, hazardous drinking and subsequently ill-health. Greater alcohol availability in neighbourhoods equates to poorer health outcomes there.

Kaikoura DC needs to assess, systematically rather than anecdotally, whether the density of bottle stores and taverns are problematic so that, where alcohol harm driven by availability can be evidenced, they put a halt to the issue of new alcohol licenses in those areas.

B. Drink Driving

The Canterbury District Health Board supports any policies that strive to reduce the negative health and social impact of alcohol misuse. In particular they understand that the concerns of rural areas with regard to alcohol harm minimisation differ from our urban centres.

One of the most prominent issues for rural communities is drink driving. Taverns are often key social hubs for rural communities but can also be catalysts for drink driving.

Canterbury DHB would support, either through discretionary conditions or a specific policy element, that Taverns and Clubs, particularly in areas where transport options are limited, be required to develop a 'safe return' plan for its patrons.

C. Scope of the Special Consultation for Kaikoura District Council

We believe that KDC has a duty under the aims of the Sale and Supply of Alcohol Act 2012 to reduce alcohol-related harm should give considerably more weighting to the views and interests of Kaikoura residents and the enforcement, health and social services that support and provide for those communities than it does to alcohol retailers.

Works Cited in the body of Consultation Response

Connor J, Y. R. (2009). Alcohol-related harm to others: a survey of physical and sexual assault in New Zealand. *NZ Medical Journal*.

Department of Mental Health and Substance Dependence. (2000). *International Guide for Monitoring Alcohol Consumption & Related Harm*. Geneva: World Health Organisation.

Jones L., e. a. (2008). *Alcohol-attributable fractions for England*. Liverpool: Centre for Public Health.

Wells JE, B. J. (2006). *Substance use disorders in Te Rau Hinengaro: The New Zealand Mental Health Survey. Final Report*. Wellington: Alcohol Advisory Council of New Zealand.

Wicki, M & Gmel G. (2011). Hospital admission rates for alcohol intoxication after policy changes in the canton of Geneva, Switzerland. *Drug & Alcohol Dependence*, 209-215.

Appendix 1: Local data to highlight the harmful impact of alcohol on the Kaikoura population.

The latest and best data available on the impact of alcohol-related harm on the population in the region comes from in-patient hospital episode data using Alcohol Attributable Fractions (AAFs). Figures 1 and 2 analyse these admissions over time and geographically.

Box 1: How Alcohol Attributable Fractions (AAFs) can be applied to understand alcohol-related harm in Kaikoura?

Alcohol causes various diseases and contributes to increases in a wide variety of diseases and conditions that are recorded in hospitals.

Extensive international research has pinpointed how much of these alcohol-related diseases and conditions are due to the alcohol itself by studying populations who drink different amounts of alcohol and comparing health outcomes for each group. These are referred to as Alcohol Attributable Fractions (AAFs). This particular set of AAFs originated, from an international guide for monitoring alcohol consumption published by the World Health Organisation (Department of Mental Health and Substance Dependence, 2000), and adapted to a population that has the same characteristic drinking behaviours as New Zealand. (Jones L., 2008).

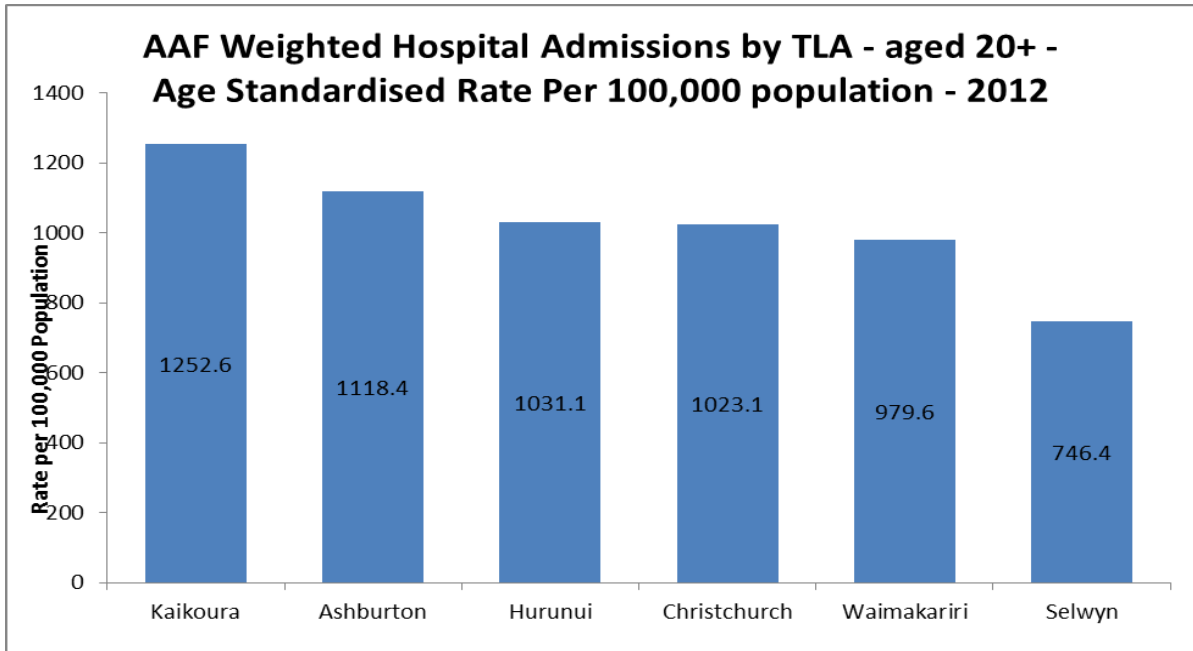
Using these AAFs we can look at every alcohol-related hospital admission in the region and get a reliable indication of the amount of alcohol-related harm experienced by that population and even predict how many hospital admissions would be avoided if people didn't drink at hazardous levels.

AAFs are at their most powerful when highlighting the differences in alcohol-related harm, either geographically over time, between different populations and across different areas of the Authority, and indicate where interventions would be most effective.

For any partially attributable alcohol-related disease or condition a proportion of hospital episodes identified through the use of AAFs will indeed not be attributable to alcohol to any extent, but equally in other episodes alcohol will have made a larger contribution. The balance point is described by the AAF, and that is why they are the most robust tool available for estimating the burden of disease caused by alcohol and are strongly advocated by the World Health Organisation.

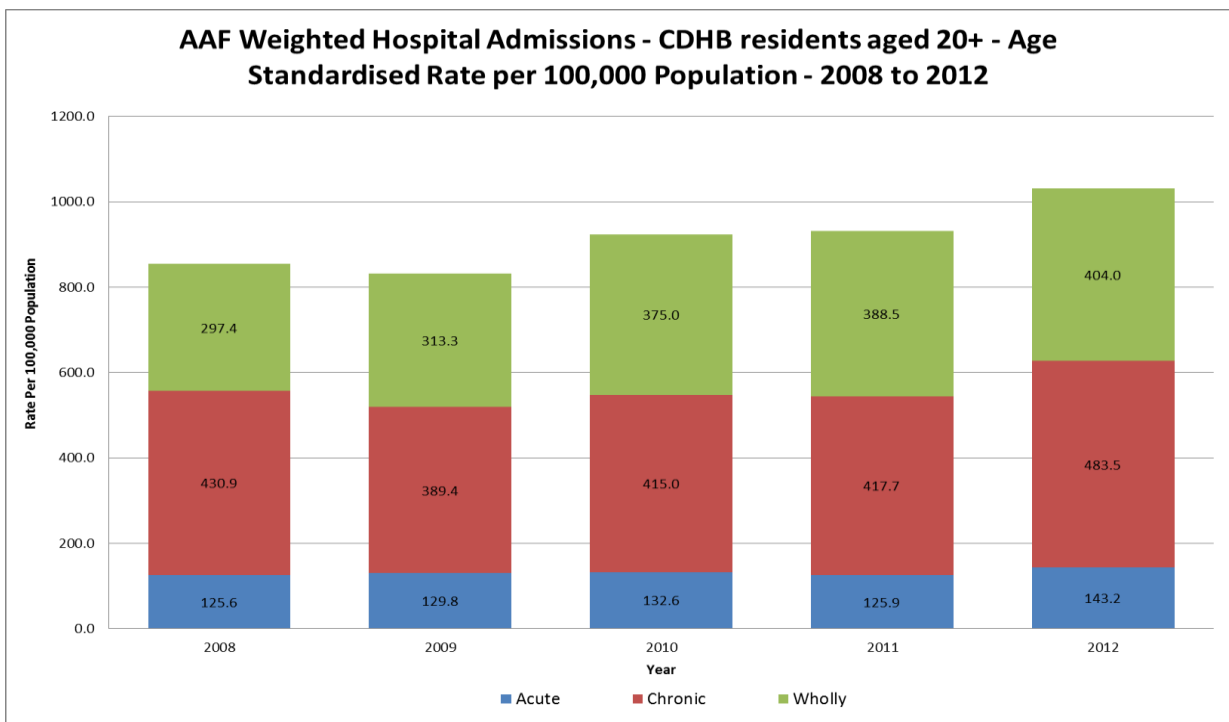
Alcohol Attributable Fractions represent the likelihood that the condition is the result of alcohol consumption, rather than the likelihood that the actual admission is the result of alcohol consumption, so it is a strong and reliable proxy for alcohol-related harm in populations.

Figure 1: Weighted alcohol-related admissions across Canterbury



Notes on Figures 1 & 2: Figure 1 highlights the relative rates of alcohol-related admissions by TLA in the CDHB area in 2012. However, we note that Kaikoura’s lower population numbers can lead to significant changes in the rates of annual admissions (where a larger populations’ rates would be more stable and indicative of alcohol-related harm). The upward trend in weighted alcohol-related admissions between 2008 and 2012 (Figure 2) is indicative of the impact of alcohol on the health of the wider population in the CDHB area.

Figure 2: Trend in alcohol-related admissions across Canterbury



Appendix 2: Research and other evidence to highlight the expected impact of the proposed policies in the draft Local Alcohol Policy (LAP)

A. Evidence affirming that a reduction in the hours of sale of licensed premises will reduce alcohol-related harm

A large body of evidence exists to prove that...

the more alcohol is made available to a population...

the more excess (i.e. hazardous levels of) alcohol will be consumed and,

the more harm will be experienced by that population

Here is a selection of that evidence...

1. Babor T, Caetano C, Casswell S et al. 2nd edition. (2010). Alcohol: No Ordinary Commodity-Research and Public Policy. Oxford: Oxford University Press.

Alcohol: No ordinary Commodity is a comprehensive report to the World Health Organisation setting out the most important policy options available to governments to reduce alcohol-related harm. It finds that according to all of the independent reviews available nationally and internationally, restricting trading hours is the most effective and cost-effective measure available to policymakers to reduce alcohol-related harm associated with licensed venues.

“Studies of restrictions of alcohol availability support the conclusion that such strategies can contribute to the reduction of alcohol problems. The best available evidence comes from studies of changes in retail availability, including reductions in the hours and days of sale, limits on the number of alcohol outlets, and restrictions on retail access to alcohol”.

and

“ These studies consistently show that restrictions on availability are associated with reductions in both alcohol use and alcohol-related problems”.

2. Kypri K, Jones C, McElduff P, Barker D. (2010). Effects of restricting pub closing times on night-time assaults in an Australian city. Addiction; 106(2), 303-310.

Full article- <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3041930/pdf/add0106-0303.pdf>

“a restriction in pub closing times to 3/3.30 a.m. in Newcastle, NSW, produced a large relative reduction in assault incidence of 37% in comparison to a control locality.”

3. Alcohol, nightlife and violence: the relative contributions of drinking before and during nights out to negative health and criminal justice outcomes.
By: Hughes, Karen; Anderson, Zara; Morleo, Michela; Bellis, Mark A.
Addiction, Jan2008, Vol. 103 Issue 1, p60-65, 6p, 2 Charts;
Abstract: Aims To explore differences in alcohol consumption and negative nightlife experiences between young people who drink prior to attending city nightlife venues and those who do not drink until reaching bars and nightclubs.
Findings: Participants who reported drinking prior to attending nightlife (e.g. at their own or a friend's home) reported significantly higher total alcohol consumption over a night out than those not drinking until reaching bars and nightclubs. Over a quarter (26.5%) of female and 15.4% of male alcohol consumption over a night out occurred prior to attending nightlife. Individuals who drink before going out were over four times more likely to report drinking >20 units [14 standard drinks] on a usual night out and 2.5 times more likely to have been involved in a fight in the city's nightlife during the previous 12 months.
Conclusions: Measures to tackle drunkenness and alcohol-related violence in nightlife should expand beyond those targeted solely at nightlife environments. Continued disparities in pricing and policing of alcohol between on- and off-licensed premises may increase at-home drinking prior to nights out and alcohol-related problems in residential areas.
4. Popova S, Giesbrecht N, Bekmuradov D, Patra J. (2009). Hours and days of sale and density of alcohol outlets: Impacts on alcohol consumption and damage: A systematic review. Alcohol and Alcoholism; 44(5), 500-516.
Full article-<http://alcalc.oxfordjournals.org/content/44/5/500.full.pdf+html>
“availability of alcohol is an effective measure to prevent alcohol-attributable harm.”
5. Chikritzhs T and Stockwell TR. (2002). The impact of later trading hours for Australian public houses (hotels) on levels of violence. Journal of Studies on Alcohol; 63(5), 591-599. Full article-
http://www.jsad.com/jsad/article/The_Impact_of_Later_Trading_Hours_for_Australian_Public_Houses_Hotels_on_/1260.html
“Late trading was associated with both increased violence in and around Perth hotels and increased levels of alcohol consumption during the study period. It is suggested that greater numbers of patrons and increased levels of intoxication contributed to the observed increase in violence and that systematic planning and evaluation of late trading licenses is required.”

6. Rossow I, & Noström, T. (2011). The impact of small changes in bar closing hours on violence. The Norwegian experience from 18 cities. *Addiction*; 107(3), 530-537. Full article- <http://onlinelibrary.wiley.com/doi/10.1111/j.1360-0443.2011.03643.x/pdf>
“In Norway, each additional 1-hour extension to the opening times of premises selling alcohol is associated with a 16% increase in violent crime.”
7. Schofield TP, Denson TF. (2013). Alcohol outlet business hours and violent crime in New York State. *Alcohol and Alcoholism*; Published online doi: 10.1093/alcalc/agt003, 2013. Abstract- <http://www.ncbi.nlm.nih.gov/pubmed/23349067>
“The findings suggest that alcohol outlet business hours affect the incidence of reported violence even in regions that would not be considered to have severe problems with alcohol-fuelled violence”
8. Effectiveness of Policies Restricting Hours of Alcohol Sales in Preventing Excessive Alcohol Consumption and Related Harms. Robert A Hahn et al. *Am J Prev Med* 2010;39(6):590–604 Full article- <http://www.thecommunityguide.org/alcohol/EffectivenessofPoliciesRestrictingHours ofAlcoholSalesinPreventingExcessiveAlcoholConsumptionandRelatedHarms.pdf>
10 studies affirming that reductions in on-licensing trading hours of more than 2 hours has an effect of reducing excessive alcohol consumption and related harms.
9. Do relaxed trading hours for bars and clubs mean more relaxed drinking? A review of international research on the impacts of changes to permitted hours of drinking. Stockwell, Timothy R.; Chikritzhs, Tanya N. Article [364.24 SPE] 2009. Full article- <http://www.palgrave-journals.com/cpcs/journal/v11/n3/pdf/cpcs200911a.pdf>
It is concluded that the balance of reliable evidence from the available international literature suggests that extended late-night trading hours lead to increased consumption and related harms.

B. Evidence supporting the need for control over alcohol outlet density to reduce crime

There is an extensive body of evidence to support the strength of the relation between alcohol outlet density and the incidence of alcohol-related crime, violence, domestic violence, anti-social behaviour, road traffic accidents, etc. and harm to vulnerable groups like dependent drinkers, children and young people.

The following is just a sample of the evidence that evidence the link between alcohol outlet license density and a range of alcohol-related harms:-

1. Connor JL, Kypri K, Bell ML, Cousins K. (2011). Alcohol outlet density, levels of drinking and alcohol-related harm in New Zealand: a national study. *Journal of Epidemiology and Community Health*; 65(10), 841-846. Abstract- <http://jech.bmj.com/content/65/10/841.long>
2. Huckle T, Huakau J, Sweetsur P, Hulsman O, Casswell S. (2008). Density of alcohol outlets and teenage drinking: living in an alcogenic environment associated with higher

- consumption in a metropolitan setting. *Addiction*; 103(10), 1641-1621. Full article [http://www.parliament.wa.gov.au/intranet/libpages.nsf/WebFiles/ITS+-+alco+article+Huckle+08/\\$FILE/alco+article+Huckle.pdf](http://www.parliament.wa.gov.au/intranet/libpages.nsf/WebFiles/ITS+-+alco+article+Huckle+08/$FILE/alco+article+Huckle.pdf)
3. Matheson A. (2005). Alcohol in Auckland: Reducing associated harm. Auckland: Auckland Regional Public Health Service. Full report- <http://www.arphs.govt.nz/Portals/0/Health%20Information/Alcohol%20and%20Tobacco/Liquor%20Licensing/Alcohol%20in%20Aklid.reslo.pdf>
 4. Cameron MP, Cochrane W, McNeill K, et al. *The Impacts of Liquor Outlets in Manukau City: Summary Report-Revised*. Wellington: ALAC, 2012. Full report- <http://www.alac.org.nz/sites/default/files/research-publications/pdfs/ManukauReportSummaryREVISED.PDF>
 5. Cameron MP, Cochrane W, McNeill K, et al. *The Impacts of Liquor Outlets in Manukau City: Report 1. A review of international academic literature and New Zealand reports*. Wellington: ALAC, 2012. Full report- <http://www.alac.org.nz/sites/default/files/research-publications/pdfs/ManukauReportNo1.pdf>
 6. Cameron MP, Cochrane W, McNeill K, et al. *The Impacts of Liquor Outlets in Manukau City: Report 2. Community stakeholders views on the impacts of liquor outlets in Manukau City*. Wellington: ALAC, 2012. Full report- <http://www.alac.org.nz/sites/default/files/research-publications/pdfs/ManukauReportNo2.PDF>
 7. Cameron MP, Cochrane W, McNeill K, et al. *The Impacts of Liquor Outlets in Manukau City: Report 3. The spatial and other characteristics of liquor outlets in Manukau City*. Wellington: ALAC, 2012. Full report- <http://www.alac.org.nz/sites/default/files/research-publications/pdfs/ManukauReportNo3.PDF>
 8. Cameron MP, Cochrane W, McNeill K, et al. *The Impacts of Liquor Outlets in Manukau City: Report 4. A spatial econometric analysis of selected impacts of liquor outlets density in Manukau City*. Wellington: ALAC, 2012. Full report- <http://www.alac.org.nz/sites/default/files/research-publications/pdfs/ManukauReportNo4.PDF>
 9. Cameron MP, Cochrane W, McNeill K, Melbourne P, Morrison S, and Robertson N. (2012). Alcohol outlet density is related to police events and motor vehicle accidents in Manukau City, New Zealand, *Australian and New Zealand Journal of Public Health*; 36(6), 537-542. Abstract- <http://onlinelibrary.wiley.com/doi/10.1111/j.1753-6405.2012.00935.x/full>
 10. Livingston M. (2008). A Longitudinal Analysis of Alcohol Outlet Density and Assault. *Alcoholism: Clinical and Experimental Research*; 32(6), 1074-1079. Abstract- <http://onlinelibrary.wiley.com/doi/10.1111/j.1530-0277.2008.00669.x/abstract;jsessionid=FA0BF3ACCF117D9FC20230AA01352137.d04t01>
 11. Livingston M. (2011). Alcohol outlet density and harm: comparing the impacts on violence and chronic harms. *Drug and Alcohol Review*; 30(5), 515-523. Abstract- <http://onlinelibrary.wiley.com/doi/10.1111/j.1465-3362.2010.00251.x/abstract>
 12. Livingston M. (2011). A longitudinal analysis of alcohol outlet density and domestic violence. *Addiction*; 106(5), 919-925. Submitted full article- <http://www.nabca.org/News/Files/Outlet%20Density%20and%20Domestic%20Violence.pdf>
 13. Treno AJ, Johnson FW, Remer LG, Gruenewald PJ. (2007). The impact of outlet densities on alcohol-related crashes: A spatial panel approach. *Accident Analysis and Prevention*; 39(5),894-901. Abstract- <http://www.ncbi.nlm.nih.gov/pubmed/17275773>

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Submission signed off by Dr Alistair Humphrey, Medical Officer of Health for Canterbury on behalf of Canterbury DHB

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