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16 February 2011

Secretariat
Justice and Electoral Select Committee
Alcohol Law Reform Bill
Select Committee Office
Parliament Buildings
Wellington 6011

Submission on the Alcohol Reform Bill

To the Justice and Electoral Select Committee:

Thank you for the opportunity to submit on this potentially very important legislation.

This submission is from the Department of Public Health, University of Otago, Wellington. We are independent public health scientists and researchers with extensive collective experience in epidemiology and public health aspects of drug use (alcohol and tobacco).

We wish to appear before the Select Committee to make an oral submission.

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Professor Richard Edwards, Head of Department
On behalf of the Department of Public Health, University of Otago, Wellington

Summary and Key Recommendations:

We from the Department of Public Health, University of Otago, Wellington strongly support the introduction of this Bill and commend the Government for undertaking the revisions that have been proposed, which are a step in the right direction in addressing the many problems of alcohol-related harm in New Zealand, as have been well documented in the Law Commission's Report *Alcohol in Our Lives: Curbing the Harm*.^[1] However, the Bill has omitted many key recommendations from the Law Commission's report which are essential to include in the Bill in order to achieve the Bill's stated objectives.

These most important omitted recommendations are:

1. Raising alcohol prices and investigate a minimum pricing scheme
2. Restricting alcohol marketing and sponsorship
3. Reducing blood alcohol content limits for driving

These, including stronger policies to reduce alcohol availability, are critical policy areas which have strong evidence for effectiveness and cost-effectiveness in reducing harmful drinking and minimising harms from excessive alcohol use. The Law Commission clearly stated that unless a comprehensive approach to alcohol-related problems was implemented, these problems would remain, and that picking out a few options for alcohol law reform and leaving out others would not be successful. This advice is based on evidence summarised by authorities around the world,^[2-5] that a comprehensive approach is needed to change a society's attitude and culture around drinking, particularly binge drinking, which causes the most harm and, unfortunately, has become normalised and even glamorised in contemporary New Zealand culture.

The first objective of the current Alcohol Reform Bill is to reduce excessive drinking by young people, therefore it makes no sense to leave out the options which will be most effective in achieving this objective i.e. raising prices and restricting marketing to young people. In the third paragraph of the Bill, there is the statement that "*Legislative settings can, however, support a safe and responsible drinking culture*" which clearly includes legislation to restrict exposure of young people to alcohol marketing and legislation on alcohol pricing. Furthermore, the second objective (*Reduce the harm caused by alcohol use, including crime, disorder, public nuisance and negative public health outcomes*) cannot be achieved without reducing blood alcohol content limits for driving.

True alcohol law reform will require stronger measures than are currently present in the Alcohol Reform Bill and are urgently needed to address the large and growing costs that alcohol is placing on society. In addition to the human suffering, there is the cost to the taxpayer-funded health sector, with these costs including those borne by: emergency services, drug and addiction services, cancer and hepatobiliary services, orthopaedic services (involved in injury management), sexual health services, psychiatric services, paediatric services (including those involved in diagnosis and management of foetal alcohol syndrome), etc. There are also costs to other taxpayer funded services eg, the police, criminal and justice sector who deal with the large annual burden of assaults, domestic and family violence, sexual violence, road traffic crashes and deaths that involve alcohol. The whole of the NZ economy also suffers when workers suffer alcohol-related absenteeism and when workers die prematurely (eg, in traffic accidents).

It is not enough to tinker at the corners when we know the scale of the problem, we know that binge drinking is extremely common, and there is high quality scientific evidence around the solutions. It is also not sufficient to ignore solutions that address the easy availability of cheap alcohol and the normalisation of a heavy drinking culture, when the harms to drinkers and society outweigh the benefits (see Appendix A).

Our Major Recommendations to the Select Committee :

1. That the Committee recommend a substantial increase in alcohol excise tax to better balance the harms (to health, from crime and to worker productivity) with the perceived benefits of alcohol (mainly pleasure when used moderately by those who consume alcohol) – at least that recommended by the Law Commission (i.e. increase excise tax rate by 50% and removal of tax on low alcohol products).
2. That the Committee recommend a substantive investigation into a minimum pricing scheme for alcohol (which could accompany excise tax increases and marketing restrictions).
3. That the Committee recommend substantial restrictions of alcohol marketing and sponsorship (possibly limited to container packaging only).
4. That the Committee recommend reducing blood alcohol content limits for driving immediately to 50 mg/100ml and consider further restrictions in the future based on overseas evidence.

5. That the Committee recommend reductions in alcohol availability in terms of density of outlets and opening hours of such outlets.
6. That the Committee raise the purchase age from 18 to 20 years for both on and off licences to give a clear and unconfused message to youth and retailers.
7. That the Committee carefully consider all the other recommendations in the Law Commission's Report in terms of appropriate supplementary measures to the above key recommendations.
8. That the Committee keep in mind that the alcohol industry, supermarket industry and other marketing and retail allies have commercial vested interests that bias their views on the topic of alcohol-harm reduction (i.e., given that they are primarily concerned to maximise sales and profits and not the wider public good).
9. That the Committee act to inform the transparency of the policymaking process by ascertaining the level of funding to political parties by the alcohol industry and allied retailers. It should also consider recommending a complete ban on donations to political parties and politicians from such sectors (as per the law in New South Wales).

Background

We welcome the opportunity to offer a submission on the Alcohol Reform Bill, which is a timely update to laws around alcohol in New Zealand. We believe that the Bill takes some good steps in the right direction in attempting to reduce harm from alcohol that is being experienced on a daily basis in New Zealand, but much more needs to be done, as stated in the Law Commission's Report. As public health practitioners we are extremely well aware of the strong scientific basis for the broader social and environmental determinants that influence individual health-related behaviours and largely drive population level changes in health and health related determinants like excessive and dangerous patterns of alcohol intake. Interventions that focus on individual behaviours and notions of individual responsibility without addressing the broader social and environmental context, will generally not be effective. This is particularly so in the face of the easy availability of cheap liquor and the refined and targeted marketing strategies, upon which enormous amounts of money are spent by the alcohol industry.

Price, marketing and availability of alcohol were three policy areas that the UK evidence review by the National Institute for Health and Clinical Excellence (NICE, an independent organisation for providing guidance on health issues) recommended as critical areas to focus on in order to reduce harmful drinking and minimise harm to others.[2] These three must be included in legislation if the Bill is to have any chance of having a positive effect and reducing the binge drinking culture in New Zealand.

The blood alcohol driving limit should also be reduced to be in line with almost all other OECD countries, including Australia. It should also be noted that the goal of this legislation is to reduce alcohol-related harm in New Zealand, and the concerns of the alcohol industry should never over-ride this goal. The goal of the alcohol industry is to maximise profits and sales, and the health and safety of consumers is of no interest to them, which was clearly exposed in a review of industry documents in 2009.[6] To maximise profits, the industry will argue against measures to reduce harm, such as increased tax, reduction in the blood alcohol limit for driving and restrictions on alcohol advertising and sponsorship.[6] It must also be remembered that alcohol is not an ordinary commodity, but a mind-altering carcinogen that can lead to dependence and cause many harms and the argument that consuming it is "an individual choice" is not valid for many addicted persons.[7] It can cause harm not only to the individuals that consume it but to those who do not consume it,[8] including children and families affected by violence fuelled by alcohol, extraneous people injured and killed in accidents caused by alcohol and children affected by foetal alcohol syndrome. The Growing Up Study estimated that 12.7% of women with unplanned pregnancies and 2.9% of women with planned pregnancies consumed 4 or more units of alcohol per week during their pregnancy.[9] If generalised to the total New Zealand population in 2009, this would translate to 4265 babies (nearly 7%) born in New Zealand exposed to high levels of alcohol during their uterine development.

1. Pricing

"Making alcohol less affordable is the most effective way of reducing alcohol-related harm." (*NICE: Alcohol use disorders: Preventing the development of hazardous and harmful drinking*[2]).

"Alcohol taxes are particularly important in targeting young people and the harms done by alcohol. If alcohol taxes were used to raise the price of alcohol in the EU15 [European Union 15 core countries] by 10%, over 9,000 deaths would be prevented during the following year and an approximate estimate suggests that €13bn of additional excise duty revenues would also be gained.

The evidence for the effectiveness and cost-effectiveness of price as a means of reducing consumption and reducing alcohol-related harm is unequivocal, especially in young people and in heavier drinkers.[2, 4, 10-13] Some of this work even suggests that alcohol tax interventions will save the health sector funds (eg, work in Australia [14]). Higher prices are likely to be the single most effective measure for reducing consumption. Readily available and cheap liquor leads to excessive and harmful consumption and associated harms. In New Zealand, alcohol has become more affordable over time in New Zealand and there is no systematic monitoring of the cost of alcoholic beverages[15] despite research demonstrating consistently low prices for alcohol over time (on average, per standard drink, 61c for cask wine and 69c for RTDs, compared to similar discounted prices of non-alcoholic beverages of 42c for a glass of milk and \$1.39 for a glass of sparkling grape juice).[16]

There should be a clear pricing strategy adopted with regular, sustained increases in tax and duty on alcoholic drinks, and with a differentiation wherever possible to particularly focus increase prices on drinks which are most associated with abuse e.g. ready-to-drink spirits, high strength beers etc. A minimum pricing strategy should be considered so as to abolish the extremely low prices that are often offered on cask wine, RTDs and beer[15, 16] and to outlaw price promotions in licensed premises that lead to excessive drinking

(Appendix C contains recent research from the department on low alcohol prices and alcohol affordability in New Zealand). Additional revenues from the tax increases should be ear-marked to alcohol-harm prevention and treatment programmes, to ensure adequate and sustainable resourcing of the other measures such as an enhanced licensing system, treatment services and social marketing campaigns. This will have the additional effect of making the increase in price more acceptable to the public (as has been clearly shown for ear-marking of tax increases on tobacco products and in the NZ setting[17] [18]).

Major Recommendations:

- That the Committee recommend a substantial increase in alcohol excise tax to better balance the harms (to health, from crime and to worker productivity) with the perceived benefits of alcohol (mainly pleasure when used moderately by those who consume alcohol) – at least that recommended by the Law Commission (i.e. increase excise tax rate by 50% and removal of tax on low alcohol products).
- That the Committee recommend a substantive investigation into a minimum pricing scheme for alcohol (which could accompany excise tax increases and marketing restrictions).

Other Recommendations:

- Implement a government-funded surveillance of alcohol prices to monitor the affordability of alcoholic beverages over time so prices could be increased if alcohol became more affordable.
 - This would include a legal requirement for retailers and alcohol producers to supply sales and price data.
- Ring-fence alcohol tax for spending on alcohol-prevention and treatment programmes (and to replace alcohol sponsorship of sport in the initial stages – see below)

2. Marketing, advertising and sponsorship

“Longitudinal studies consistently suggest that exposure to media and commercial communications on alcohol is associated with the likelihood that adolescents will start to drink alcohol, and with increased drinking amongst baseline drinkers. We conclude that alcohol advertising and promotion increases the likelihood that adolescents will start to use alcohol, and to drink more if they are already using alcohol.” (*Systematic review of marketing studies 2009*[19]).

“The extant literature shows that while many econometric studies suggest alcohol marketing to have a minimal effect on youth alcohol consumption, more focussed consumer studies, particularly recent research employing sophisticated longitudinal designs, demonstrate clear links between alcohol advertising and drinking behaviour. Encouragingly, some of the more recent research studies assess marketing activity beyond advertising; sponsorship, new media, viral marketing, price promotions, new forms of distribution, product development and increased point of sale activity. The literature presents increasingly compelling evidence that alcohol marketing is directly impacting upon young people’s drinking behaviour.” (*Review of consumer marketing studies 2010*[20]).

Section 5 clause 220 of the Alcohol Reform Bill on the irresponsible promotion of alcohol, while containing necessary elements, does not go far enough. The Law Commission report recommended the phased elimination of all alcohol sponsorship of sports and advertising and promotion of alcohol, and there is plenty of evidence available that clearly links advertising to youth consumption of alcohol, attitudes to drinking and uptake of drinking at an earlier age.[19-22] Banning alcohol advertising is a cost-effective strategy to reduce alcohol-related harm.[13] Studies have started to look at more subtle forms of advertising, such as alcohol-branded merchandise – which has been found to increase susceptibility to drinking and binge drinking.[23] This has highlighted the need for monitoring of all types of alcohol promotion. Advertisements make alcohol attractive to young people, linking it to lifestyles to which they aspire.[24] A recent multi-country analysis, including New Zealand, concluded that ‘more comprehensive and stringent alcohol control policies, particularly policies affecting alcohol availability and marketing, are associated with lower prevalence and frequency of adolescent alcohol consumption and age of first alcohol use’.[25] Voluntary codes are impotent to control the industry’s marketing and there are many examples where the industry is already blatantly flouting the code by having sexually provocative advertisements and targeting young people (eg, see the Tui website – Appendix B contains some images). Special consideration must be given to new forms of advertising not readily covered by the existing code, such as social media, internet advertisements and text messages. The alcohol industry has a vested interest in maximising consumption and so it would be commercially self-defeating for the industry to regulate itself in any meaningful way. All marketing, but particularly marketing of alcohol to youth needs to be explicitly banned, as the burden of harmful drinking is particularly falling on young people. In addition any marketing that includes promotion of alcohol on price (e.g. happy hours, “doubles for the price of a single”, bulk discounts etc) should be banned.

It is worth noting that the alcohol industry is in many ways similar to the tobacco industry. Similar strategies that were used to minimise harm from smoking need to be applied to the area of alcohol. Therefore, lessons learned from removing tobacco advertising from sport and cultural events can be applied here. We can anticipate much protest from the industry and from sporting and cultural groups, who will claim that their respective sports/arts/dance/culture groups etc will “die” without money from the alcohol industry. This is quite simply not consistent with history. The Benson and Hedges Cricket series did not die; the Rothman’s rally did not die (it even became the Smokefree rally); the Royal New Zealand Ballet did not die. The transition away from dependency on alcohol sponsorship could ideally be done slowly, in a planned and incremental manner. Also large sponsorships, such as Steinlager’s sponsorship of the All Blacks, could be taken over by the Health Sponsorship Council, using alcohol excise taxes as funding, until other sponsors can be found. Given the popularity of the All Blacks and the amount of promotion Lion Nathan gets from this sponsorship, it is likely that a new sponsor will quickly be found. This is extremely important – we cannot expect a shift in the culture of drinking in New Zealand while the alcohol industry is allowed to continue marketing as it is, especially linking its product to sporting heroes. The 2011 Rugby World Cup would be an ideal opportunity to do this, if we were serious about addressing the harm from alcohol in New Zealand society.

Major Recommendation:

- That the Committee recommend substantial restrictions of alcohol marketing and sponsorship (possibly limited to container packaging only).

Other Recommendations

- Phase out all alcohol sponsorship of sport, using the elimination of tobacco sponsorship from sport as a model, which may include using alcohol excise taxes as interim funding for sports sponsorship.
- Restrict all forms of alcohol advertising, especially that targeted to young people, with the goal of elimination of all alcohol advertising.

3. Reduce alcohol availability

“This study demonstrated associations between the number of off licences, pubs/bars, clubs and restaurants within 1 km of home and level of self-reported harm from alcohol in an unselected national population. The number of off-licence outlets within 1 km was also associated with increased odds of binge drinking...the difference between 5 and 15 off-licence outlets is a 48% increase in the odds of binge drinking and 26% more alcohol-related harm.”

(New Zealand study of binge drinking, alcohol harm and outlet density[26])

Reductions in outlet density and reduced hours of sales are effective measures in reducing alcohol-related harm.[13] The evidence shows that if opening hours for the sale of alcohol are extended more violent harm results. The World Health Organization has modelled the impact of alcohol being less available from retail outlets by a 24 hour period each week; applying this to the European Union it found an estimated 123,000 years of disability and premature death avoided at an estimated implementation cost of €98 million each year.” *(Alcohol in Europe, Chapter 7: The effectiveness of alcohol policy[27])*. Therefore, the adoption of local alcohol policies, allowing communities to have more input into the number and type of licensed premises in their areas, is an excellent advance over current legislation, except it should be a mandatory requirement and not a voluntary one. If these policies are voluntary, local authorities are not bound to adopt them, and so not all communities will be empowered to have the input into these decisions which are so important.

The adoption of reduced trading hours is also a good policy, although it would be more effective if the hours were restricted to what the Law Commission Report recommended rather than the extended hours which are proposed in the current legislation, and making the one-way door policy compulsory not optional. Restricted closing times (closing at 3 or 3.30am with a one-way door of 1.30am) were effective in reducing assaults in the central business district of Newcastle in New South Wales in 2008.[28]

Major Recommendations:

- That the Committee recommend reductions in alcohol availability in terms of density of outlets and opening hours of such outlets.

Other Recommendations:

- Make the adoption of local alcohol policies mandatory and not voluntary.
- Adopt the reduced trading hours as recommended by the Law Commission, but with a *mandatory* one-way policy.

- Give local authorities power to adopt more restricted trading hours and eliminate alcohol from dairies and supermarkets.

4. Blood alcohol

“In 2008, 31 percent of fatal crashes and 21 percent of serious injury crashes were caused by drivers who were under the influence of alcohol and/or drugs. These crashes resulted in 119 deaths, 572 serious injuries and 1,715 minor injuries. In 2008 it is estimated that the social cost of crashes where alcohol/drugs were a factor was \$833 million.” (*From the NZ Ministry of Transport website*).

“It is estimated that each year this initiative [lowering the blood alcohol limit to 50 mg/100 ml] could save between 15 and 30 lives and prevent between 320 and 686 injuries. This would be an annual social cost saving of between \$111 million and \$238 million.” (*Ministry of Transport Safer Journeys Road Safety Strategy 2010-2020*)

“It would be desirable to introduce a uniform maximum permissible level of blood alcohol of 0.5 gram per litre, low enough to allow the average driver to retain the ability to assess risk.” (*World Medical Association Statement on Alcohol and Road Safety, Adopted by the 44th World Medical Assembly Marbella, Spain, September 1992 and Revised by the WMA General Assembly, Pilanesberg, South Africa, October 2006*)

“There is wide agreement amongst medical and professional experts that a BAC of 0.05 [50 mg/100ml] is the highest level that should be permitted.” (*European Transport Safety Council, Drink Driving Fact Sheet, January 2008*)

“The New Zealand risk of driver fatal injury during the main drinking times increases steeply with increasing BAC [blood alcohol concentration], doubling for each 20 mg/dl increase in driver BAC. Teenage drivers are estimated to have more than five times the risk of drivers aged 30+ at all BAC levels. Drivers in their twenties are estimated to have three times the risk of drivers aged 30+ at all BAC levels... A driver aged between 20 and 29 with a BAC of 80 mg/dl carrying two or more passengers is legally driving at over 100 times the risk of the safest driver group (sober drivers aged 30+ with one passenger).”
(*New Zealand research on risk of fatal injury and blood alcohol concentration [29]*)

New Zealand is clearly lagging behind other OECD countries in the area of lowering the blood alcohol driving level to a safe limit, including Australia.[30] Indeed, Australia is so far ahead of New Zealand in seriously attempting to reduce the road toll, that it is considering lowering the blood alcohol limit to 30 mg/100ml or even zero. Ireland and the UK are two other OECD countries that have a limit of 80 mg/100ml and in 2010, and yet the UK Review of Drink and Drug Driving Law, commissioned by the Secretary of State for Transport to consider, amongst other things, the evidence on the impact of potential measures to reduce drink driving casualties, concluded that the 80 mg/100 ml limit should be reduced to 50 mg/100 ml.[31] This was based on substantial public support for the reduction, to align with almost all other EU countries, and because of consistent and overwhelming research that the risk of having a traffic crash increases exponentially with the amount of alcohol consumed. Similarly, a study by NICE (UK National Institute for Health and Clinical Excellence, which publishes high quality evidence reviews) concluded that lowering the blood alcohol limit in the UK would be effective in saving lives, especially of young drivers.[32] One of the best quality studies found by this review analysed 15 European countries and concluded that adopting the lower limit reduced alcohol-related driving fatalities by 11.5% among young people aged 18–25 years and by 5.7% among men of all ages.[33] This reduction was also recommended by the European Commission.[34]

The Ministry of Transport in its report in 2010 on Safer Journeys has identified “reducing alcohol/drug impaired driving” as one of its top areas of high concern, and reducing the blood alcohol driving level as a key means of addressing this, this report states that the blood alcohol level for driving in New Zealand is too high: “Our current BAC of 0.08 allows people to become significantly impaired and still legally drive” and that “in comparison with Australia, where an adult drink drive limit of BAC 0.05 has been in place for many years, New Zealand experiences a higher level of alcohol-related road crashes” (p30) [35]. New Zealand based research has shown that risk of fatal road traffic injury is associated with increased blood alcohol concentration and is much higher in young drivers.[29]

The side-stepping of this issue by the Land Transport (Road Safety and Other Matters) Amendment Bill, in which “more research” on the harm associated with driving under the influence between 80 mg/100ml to 50 mg/100ml is recommended, is completely unsatisfactory and wastes time and public resources (given that there is sufficient international scientific evidence available on this matter).

Major Recommendation:

- That the Committee recommend reducing blood alcohol content limits for driving immediately to 50 mg/100ml and consider further restrictions in the future based on overseas evidence.

5. Purchase age

We support raising the buying age back to 20 years for both purchase of alcohol at on licences and off licences and do not support leaving this issue to a Conscience Vote in Parliament, as long as this is part of a package of measures to tackle the alcohol issue in society (including pricing, marketing/ advertising/ sponsorship, lowering the blood alcohol limit for driving, etc). This recommendation is based on New Zealand based research showing that since the purchase age has been lowered, significantly more alcohol-related traffic crashes have occurred amongst young adults[36-38] as have prosecutions for disorder offences in 14-15 year olds[38] and presentations to Emergency Departments of young people with alcohol intoxication.[39] Of concern is data from ALAC shows that drinking in 14-18 year olds has increased since the lowering of the purchase age.[40] Overseas literature also suggests that lowering the purchase age is likely to have health and social harms[40] and a higher purchase age is effective at reducing alcohol-related traffic accidents.[13, 41] In addition, with respect to the split purchase age, there is little evidence to support the notion that teenagers drink more responsibly and safely at on-licensed premises. For example, from the 1995 Drinking in New Zealand Survey, much of the heavy drinking done by young men was at on licensed premises and harm from drinking was more likely to be experienced at licensed premises, with a significant proportion of serious assaults occur at and around licensed premises of both types.[42]

We support the measures in the Bill giving more responsibilities to parents in supervising the consumption of alcohol of their children but we also recommend:

Major Recommendation:

- That the Committee raise the purchase age from 18 to 20 years for both on and off licences to give a clear and unconfused message to youth and retailers.

6. Key process issues

Collectively we have been engaged in many previous submissions to Select Committees in the NZ Parliamentary system over the past two decades. Such submissions are a key part of the democratic process and they can allow policymakers to obtain useful technical and contextual information and advice from experts in relevant fields.

Of note is that some experts suggest that “the alcohol industry should not be involved in making alcohol policy”. [43] Furthermore, some industry suggestions for alcohol policy may actually “increase the risk of harm” (ie, for industry-funded education[43]). Other approaches that are promoted by industry are often not particularly effective (if at all) eg, school-based education.[7]

New Zealand is fortunate as being ranked each year by Transparency International as the top (or near the top) in terms of the least corrupt country in the world. This status is important to maintain and so it is necessary to put into place preventive measures to guard against corruption and undue political influence by commercial interests. Indeed, we are aware that political processes can be unduly influenced by such interests in other countries. There are many studies on this, particularly concerning the tobacco industry.[44-47] But similar evidence relates to the alcohol industry.[48-50]

Given this situation, we therefore favour New Zealand following New South Wales (NSW) in adopting a law where “retailers, and the organisations that represent them, who make profits from alcohol, tobacco and gambling will be banned from making donations to political parties.” (See: Bennett A. AAP.

<http://au.news.yahoo.com/national-news/a/-/latest/8298502/campaign-spending-caps-pass-nsw-parliament/>). This NSW law followed an earlier law that prohibited the receipt of political donations by property developers in NSW (See:

[http://www.parliament.nsw.gov.au/prod/parliament/publications.nsf/key/PoliticalDonationsandElectoralFinance/\\$File/Political+Donations+and+Electoral+Finance+E-Brief.pdf](http://www.parliament.nsw.gov.au/prod/parliament/publications.nsf/key/PoliticalDonationsandElectoralFinance/$File/Political+Donations+and+Electoral+Finance+E-Brief.pdf)).

Major recommendations:

- That the Committee keep in mind that the alcohol industry, supermarket industry and other marketing and retail allies have commercial vested interests that bias their views on the topic of alcohol-harm reduction (i.e., given that they are primarily concerned to maximise sales and profits and not the wider public good).
- That the Committee act to inform the transparency of the policymaking process by ascertaining the level of funding to political parties by the alcohol industry and allied retailers. It should also consider recommending a complete ban on donations to political parties and politicians from such sectors (as per the law in New South Wales).

Statement of Competing Interests

The authors are independent public health scientists and researchers and have no commercial interests in the production or sale of alcohol. Their motivation is entirely related to getting a better balance between the harms and benefits to New Zealand society (i.e., minimising harms and maximising benefits for those who decide to drink).

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Appendix A: A Brief Summary of balancing the benefits and harms of alcohol use/misuse in New Zealand: What politicians might consider

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Alcohol presents a relatively complex policy problem, partly because the balance of benefits and harms are not entirely clear at the individual, community and national levels. Nevertheless, national and local politicians are in the position to use laws and regulations to shift the balance between the harms and benefits of alcohol use in New Zealand. It is therefore very appropriate that there is a Parliamentary Select Committee that is considering ways to reduce alcohol-related harm, following on from a detailed report by the Law Commission.[51] The international context for this includes good evidence that interventions to reduce alcohol-related harm are cost-effective,[52] and even cost-saving to government (e.g., alcohol taxation and advertising restrictions).[14, 53]

In an attempt to identify some of the major issues, we generated a very brief summary of benefits and harms of alcohol use/misuse in the Table below. These findings suggest to us that New Zealand society would be likely to achieve a net benefit from reducing binge drinking, and shifting alcohol consumption towards a pattern of smaller amounts. A shift towards consuming alcohol in the context of meals, rather than without food, would also seem to be likely to improve the benefit-to-harm ratio.

Given the issues raised in the Table, we also suspect that politicians from different parts of the political spectrum might generally favour a shift towards stronger regulation and to higher alcohol taxes. For example, politicians on the “political right” may particularly favour reducing the cost to taxpayers from alcohol-related harm. They may also focus on protecting the rights of individuals who might be harmed by drinkers (e.g., particularly those harmed by alcohol-related violence, crime, and car crashes) and reducing the proportion of police resources used to deal with alcohol-related harm. Politicians of the “political left” may particularly consider the overall societal benefits from enhanced alcohol regulation and the benefits to disadvantaged New Zealanders. Possibly the only political groupings to oppose any regulatory advances are those of the “far right” of the political spectrum, if they have an ideological opposition to all new government regulation. But even this grouping may be conflicted, if some members recognise that poorly regulated alcohol imposes an extra burden on taxpayers and imposes harms on non-drinkers, including children.

Even if most major political perspectives are consistent with improved regulatory responses to reduce alcohol-related harm, the alcohol and retail industries will tend to oppose enhanced new regulatory or fiscal controls. Overall, these industries have historically voiced opposition to new measures that limit total sales and the size of the discount alcohol market (e.g., which appears to be used to attract shoppers to supermarkets). It is therefore critical for New Zealand politicians to consider industry arguments with appropriate scepticism, and to dispassionately weigh the benefits and harms of alcohol according to the evidence available.

Table: The benefits and harms of alcohol use/misuse in New Zealand, a brief summary

Aspect	Benefits to drinkers and society	Harms to drinkers, others and society
Psychological / mental health aspects	Pleasure to alcohol consumers which may relate to: beverage taste, the impact of alcohol on enjoying food, satisfaction with being a connoisseur or home brewer, and the pharmacological effects (e.g., pleasure via endogenous morphinergic mechanisms[54]).	Drinkers: At varying levels, alcohol can cause stress associated with poor judgement. For example, among NZ university students the occurrence of “unsafe, unhappy and unwanted sexual experiences” was increased with alcohol misuse and young age of drinking onset.[55] [56] There is also stress associated with being dependent on alcohol (especially where this is contributing to financial hardship and/or harming others). Other harms are more obvious e.g., suffering from withdrawal symptoms, hangovers and disrupted sleep after heavy drinking. Alcohol can also cause mental health disorders including depression, anxiety and psychosis and is often present in the blood of those who attempt or complete suicide. Other NZers: There are multiple adverse psychological impacts on family and friends associated with alcohol dependence and adverse consequences of misuse (e.g., violence, crime, exacerbation of

Aspect	Benefits to drinkers and society	Harms to drinkers, others and society
		poverty, physical health problems etc – see below). E.g., one study estimated that in NZ, “more than 62,000 physical assaults and 10,000 sexual assaults occur every year which involve a perpetrator who has been drinking.”[57] NZ data indicate that when people are exposed “in your life” to heavy drinkers, this adversely impacts on their personal wellbeing and health status.[58]
Physical health	At low and regular consumption levels there are likely benefits from a reduction in ischaemic heart disease (IHD) risk for older people.[59] But the extent of this relationship “is still debated”,[60] including by NZ experts.[61] Rehm et al estimated the benefit to health in disability-adjusted life years (DALYs) as being only 3.3% of the lost DALYs from harm to health from alcohol.[59]	<p>Drinkers: The most recent study estimated that 3.9% of annual deaths in New Zealand were attributable to alcohol consumption (approximately 1037 deaths).[62] Even when considering likely health benefits (IHD prevention) there was a net loss of almost 12,000 years of life. In a separate analysis, an annual net loss of 26,000 DALYs was estimated. This high health burden is consistent with international estimates.^[63] Major adverse impacts are in terms of: injuries, cirrhosis of the liver, cardiovascular disease (hypertensive disorders, cardiomyopathy and haemorrhagic stroke) and cancer (liver, breast, colorectal, pharynx, and larynx).[59, 64] An Emergency Department (ED) study in NZ found that the risk of sustaining an injury was over two times greater when alcohol involved.[65]</p> <p>Other NZers: There is harm to the fetus from alcohol misuse in pregnancy and some pregnant women in NZ continue to drink during pregnancy (e.g., 11% of those with unplanned pregnancies have 4-20 drinks per week at some point during their pregnancy).[66] Children can be harmed where there is alcohol-related violence, sexual assault and poverty. But all age groups can suffer alcohol-related assault, vehicle crashes, and treatment delays (e.g., in EDs and hospital wards overloaded with patients with alcohol-related problems). One NZ study found “that more than 40% of alcohol-related crash injuries in New Zealand are suffered by people who have not themselves been drinking.”[67] ... “Most innocent victims are car passengers, and this includes almost all children who are injured by drink driving.” ... “Using official cost figures, alcohol-related injuries to innocent victims cost the country more than half a billion dollars per year.”</p>
Health inequalities (ethnic & gender)	Nil benefits identified.	Society: Ethnic inequalities in health are exacerbated by the relatively high burden of harm to Māori from alcohol.[62] As for Māori, Pacific peoples are also more likely to have patterns of hazardous alcohol use (relative to European NZers). ^[68] Similarly, gender inequalities in life expectancy are also exacerbated by alcohol with 76% of DALYs lost from alcohol in NZ being from men.[62] Of note is that low socioeconomic status in childhood is itself a risk factor for alcohol dependence in adulthood according to longitudinal data from NZ.[69]
Societal function-ing	Society: At low and moderate levels alcohol may act as a “social lubricant” and can be valued in some cultural settings (e.g., in celebrations).	Society: A NZ survey found 40% of people had experienced harmful effects on friendships or social life “due to someone else’s alcohol use”.[70] Alcohol-related violence and crime are serious social harms e.g., in NZ at least 31% of violent offences involved an offender who had consumed alcohol before committing the offence.[51] The Law Commission also reported “a disturbing level of anti-social behaviours from abusive and offensive language, intimidation, sexual harassment, graffiti and vandalism to urinating, excreting and vomiting in public places”. Drink driving and disorderly conduct in youth increased after liberalisation of alcohol laws in NZ in 1990s to early 2000s.[71] Social capital is also reduced from the adverse health effects (see above) and economic impacts (see below).
Economy	Society/industry: There are economic	Drinkers: There is adverse economic impact to individuals who buy alcohol when suffering economic hardship. An estimated 147,500

Aspect	Benefits to drinkers and society	Harms to drinkers, others and society
	<p>benefits to alcohol producers and retailers. There is also the benefit to tourism from alcohol contributing to NZ cuisine. It is hard to quantify these benefits at the margin (e.g., the value of a vineyard over other agricultural production, especially when “wine glut” situations occur in NZ[72]).</p>	<p>adults (6% of the population) reported having at least one day off work or school in the last 12 months as a result of their alcohol use.[70]</p> <p>Other NZers: A NZ survey found 10% of people had experienced harmful effects on their financial position “due to someone else’s alcohol use”. [70] There is a cost to taxpayers from costs due to health harms, crime, and costs to the education sector (children harmed directly by alcohol [e.g., fetal alcohol syndrome], or where learning is impaired by alcohol-exacerbated poverty). There is also lost tax revenue from lower worker productivity (i.e., there are an estimated 392,800 work days per year in NZ that are lost to alcohol).[51] Local government (funded by rate payers) pays for some crime-related costs and the costs from alcohol-related litter and broken glass, graffiti and cleaning costs (e.g., from vomit and urine on streets).</p>
Government revenue	<p>Society: Alcohol excise tax provides the government with revenue and so may slightly off-set the need for higher levels of other taxes (e.g., higher income taxes and GST).</p>	<p>Drinkers: The excise tax means that drinkers have to pay extra for alcohol, albeit in proportion to the amount they buy. From an overall alcohol-harm reduction perspective the excise tax is good, but from an individual drinker perspective it is an added cost, and may contribute to financial hardship, especially in dependent drinkers.</p> <p>Industry: Due to the impact of the higher prices on domestic sales, the alcohol industry will have slightly reduced profits.</p>
Summary	<p>The most substantive benefits to society are probably pleasure to users and economic benefits (largely to industry).</p>	<p>The most substantive harms are probably those to mental and physical health, harm to society (e.g., from crime) and adverse net economic impacts. The substantial harm to non-users is a key argument for democratic governments to use regulations and taxes to minimise harm from alcohol.</p>

Appendix B: Pictures from Tui website

Code for Advertising Liquor (NZ Advertising Standards Authority)

Liquor advertisements shall not glamorise liquor or association with it, or show or encourage the immoderate consumption of liquor.

While advertisements may depict the consumption of liquor as incidental to a friendly and happy social environment, they shall not suggest that liquor will create a significant or desirable change in mood or social environment, or that liquor contributes to or is a reward for success or achievement of any kind

Advertisements shall not be sexually provocative or suggestive or suggest any link between liquor and sexual attraction or performance.

“Tui Girls” – downloaded from Tui website 14 December 2010





Appendix C: Recent research on low alcohol prices and alcohol affordability in New Zealand

Consistently cheap alcohol: National data on discounts for an eight week period, N Z Med J 2011;124(1329).

Previous research has highlighted the availability of relatively cheap alcohol in New Zealand and has demonstrated that the affordability of alcohol has increased over time.¹ Despite Justice Minister Simon Power stating that this is of concern,² the issue of price has been avoided in the Alcohol Reform Bill, which is currently before a Parliamentary Select Committee. This is regardless of evidence for both the effectiveness and cost-effectiveness of price as a means of reducing consumption and reducing alcohol-related harm, especially in young people and in heavier drinkers.³⁻⁷ The National Institute for Health and Clinical Excellence, in its report, "Alcohol use disorders: Preventing the development of hazardous and harmful drinking" makes this statement: "Making alcohol less affordable is the most effective way of reducing alcohol-related harm."³ Modelling work from Australia even suggests that alcohol tax interventions will save health sector funds.⁸

The Government's approach to cheap and affordable alcohol has been to rule out any increase in alcohol excise tax and to give retailers a year in which to volunteer data on price and sales of alcohol, to be used in investigating a minimum pricing regime.⁹ This proposed approach is puzzling and has not been clearly justified, given the existing evidence that price interventions are effective in reducing alcohol-related harm and that increasing affordability of alcohol has already been shown using Statistics New Zealand data.¹ Indeed, the Review of Liquor Laws undertaken by the Law Commission recommended almost the exact opposite approach – an increase in tax, reduction in tax of low alcohol beverages, and full investigation of a minimum pricing scheme that included a *requirement* for retailers and producers to provide sales and price data.¹⁰ Nevertheless, to further understand this issue we examined additional contemporary evidence by collecting data on discounted alcohol in late 2010. To provide context, these data were compared with the prices of other commonly consumed non-alcoholic beverages.

Methods – We monitored discounted alcoholic beverage prices from 29 October to 20 December 2010, using data detailed on a national service for providing such information to the commercial sector. This service is the "LIPS" (Liquor Information Pricing Search) search engine (www.lips.co.nz), a partially free service established since 2003. LIPS compiles advertised alcohol beverage prices from newspapers, circulars, mailers and email offers from all types of outlets that sell alcohol throughout New Zealand. The purpose of LIPS is to facilitate the ready identification of the cheapest offers, promotions and specials on beer, wine, ready-to-drink premixed spirit drinks (RTDs) and spirits, making this a useful resource for both consumers and the alcohol industry. As Bruce Priddy, the Brand Manager for Jim Beam comments on the site: "LIPS provide accurate, up to date liquor information beneficial to our everyday business."

We examined this website for the cheapest alcohol advertised twice weekly (on Mondays and Fridays, to account for possible variation in discounting at different times of the week). We monitored prices for cask wine (previously found to be the cheapest alcohol per standard drink),¹ RTDs and cider (as these latter drinks are often favoured by youth drinkers). For comparison, we also monitored discounted soft drink (*Coca-Cola*), apple-based fruit juice and sparkling grape juice, as these are frequently offered as alternative beverages to alcohol, and milk, as a staple household beverage, particularly for children, as advertised online by a supermarket chain (at <http://www.woolworths.co.nz/>).

We compared standard drinks of alcohol (one standard alcoholic drink being equivalent to 10g of alcohol), taking into account the volume and percentage alcohol of the type of alcohol (e.g., one standard drink of wine at 13% alcohol is 100ml; a standard drink of 4% beer is 330ml; a standard drink of spirits at 40% alcohol is 30ml; a 250ml bottle of RTD spirits at 5% alcohol is approximately one standard drink). Not accounting for volume and percentage alcohol would make comparisons among different alcohol types meaningless. Comparing standard drink per alcohol type (not volume of drink) is commonsense research practice. The number of standard drinks per alcohol unit being sold was calculated by using the formula: "volume of container (litres) x % alcohol by volume (ml/100ml) x 0.789 = number of standard drinks" (obtained from: <http://www.nzfsa.govt.nz/consumers/food-safety-topics/food-processing-labelling/food-labelling/fact-sheets/fs-2003-04-alcohol-labelling.htm>). The price per standard drink was then calculated by dividing the cost of the alcohol by number of standard drinks. A few RTDs, where the alcohol content was not readily available, were omitted from the analysis. Similarly, to compare alcoholic to non-alcoholic beverages, this was done using standard drinks not volume comparisons. For non-alcoholic beverages, a glass or cup (250ml) is a commonly accepted serving size and is the serving size for which

nutritional information is given on the label for most soft drinks and juices, and is the recommended serving size for milk.¹¹ Hence, 250ml was chosen as the standard drink comparison for non-alcoholic beverages (milk, juice and soft drink).

Results – Table 1 shows the price per standard drink (one unit of alcohol for cask wine, cider and RTDs and 250ml for non-alcoholic drinks) for the most discounted brand of each beverage type over the study period. For example, on the first day of sampling, 2.25L of *Coca-Cola* cost \$2.50, giving a cost per 250ml of 28c; 12 x 330ml bottles of *Mac's Isaac's pear cider* (at 5% alcohol) cost \$15, giving a cost per standard drink of 96c and 3L of *Chasseur Classic Red* cask wine (13% alcohol) cost \$18.89, giving a cost per standard drink of 61c.

Over the two months of twice weekly data collection, cask wine generally provided the cheapest alcoholic standard drink, although certain RTDs provided slightly cheaper standard drinks on occasions (as low as \$0.53). The prices of RTDs and cider increased in December, perhaps due to fewer pre-Christmas specials. The prices of the non-alcoholic drinks remained fairly static, with the cheapest milk still more expensive than the cheapest cola and fruit juice by glass. A glass of the cheapest non-alcoholic sparkling grape juice was more than twice as expensive as a standard drink of discount cask wine.

Discussion – After two months of monitoring discounted alcohol data and comparing this to discounted non-alcoholic beverage data, we demonstrated consistently low prices for several alcohol beverage categories. At the lowest prices (e.g., 0.53 per standard drink for one RTD), some light weight adults could exceed the legal driving limit for blood alcohol after consuming just over a dollar's worth of alcoholic beverage. We found a wider range of prices for cider, although there were fewer specials advertised for cider on the LIPS website than for RTDs. Throughout the time period of monitoring, the number of cider specials ranged from three to 26 per day, but the number of specials recorded for RTDs were in the hundreds on each day of monitoring.

We found that for cask wine, the discounting was not merely for one advertised product or brand but even the top five most discounted wines gave a similarly cheap price per standard drink. We also found that the difference between the cost per standard discounted (alcoholic) drink and the cost per glass of discounted non-alcoholic drink was relatively small. For example, on average the cost of a glass of cask wine was 61c, the cost of a glass of milk was 42c and the cost of a glass of sparkling grape juice was \$1.39. The comparison with grape juice is notable as it suggests that the current alcohol excise tax is nowhere near high enough to make the wine substantially more expensive than this other product derived from the same source (and presumably grape juice costs less to process than wine does).

We know from the Law Commission's detailed report that alcohol is causing substantial harm to New Zealanders¹⁰ and that this harm is often a burden to children, to other adults,¹² and to tax-payers in general. Given the data presented here in our study, it seems clear to us that consumers of alcohol should do more to pay their way (in terms of the true health and social costs of alcohol) and that alcohol prices need to therefore include a much higher excise tax component. A law against alcohol beverage discounts may also be a worthwhile part of the policy response.

If adequately informed of the problems associated with cheap alcohol, we believe it is likely that New Zealand society will favour higher alcohol taxes. Indeed, most drinkers themselves may favour such taxes if the tax revenue gained was directed toward increased health spending (e.g., improvements in emergency care in all of New Zealand's public hospitals). Such linkages have been shown to be relevant in determining the support for higher tobacco taxes by New Zealand smokers.¹³

Ongoing monitoring of alcohol prices by official agencies is also important, but collecting such additional data should not be used to delay action at a time when the public appetite for progress on alcohol control has reached new highs.

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Competing interests: While we do not consider it a "competing interest", we note that two of the authors (FI and NW) have performed work on alcohol issues for health sector agencies. However, this particular study had no funding. All the authors are regular/occasional alcohol consumers.

Table 1: Lowest price per standard drink (one unit for alcoholic drinks, 250ml for non-alcoholic drinks), alcohol beverage data from the LIPS website; Coca-Cola, juice and milk from the online supermarket website

Date	Alcoholic beverages			Non-alcoholic comparison drinks			
	Cask wine	Cider	RTDs	Coca-Cola	Apple-based juice	Sparkling grape juice	Milk*
29/10/2010	\$0.61	\$0.96	\$0.53	\$0.28	\$0.37	\$1.43	\$0.44
1/11/2010	\$0.62	\$0.96	\$0.65	\$0.41	\$0.31	\$1.40	\$0.44
5/11/2010	\$0.62	\$0.96	\$0.63	\$0.28	\$0.33	\$1.40	\$0.44
8/11/2010	\$0.58	\$0.96	\$0.63	\$0.40	\$0.42	\$1.43	\$0.51
12/11/2010	\$0.58	\$0.96	\$0.63	\$0.40	\$0.42	\$1.43	\$0.31
15/11/2010	\$0.62	\$0.96	\$0.63	\$0.30	\$0.36	\$1.43	\$0.44
19/11/2010	\$0.62	\$0.96	\$0.63	\$0.30	\$0.36	\$1.43	\$0.30
22/11/2010	\$0.62	\$0.96	\$0.63	\$0.40	\$0.25	\$1.43	\$0.44
26/11/2010	\$0.62	\$0.96	\$0.63	\$0.25	\$0.25	\$1.43	\$0.44
29/11/2010	\$0.62	\$0.96	\$0.80	\$0.33	\$0.42	\$1.43	\$0.44
3/12/2010	\$0.60	\$1.60	\$0.75	\$0.28	\$0.42	\$1.46	\$0.44
6/12/2010	\$0.60	\$1.84	\$0.75	\$0.28	\$0.25	\$1.33	\$0.34
10/12/2010	\$0.60	\$1.11	\$0.80	\$0.28	\$0.25	\$1.33	\$0.44
13/12/2010	\$0.60	\$1.66	\$0.80	\$0.40	\$0.39	\$1.33	\$0.44
17/12/2010	\$0.58	\$1.41	\$0.80	\$0.40	\$0.39	\$1.33	\$0.44
20/12/2010	\$0.68	\$1.47	\$0.80	\$0.28	\$0.33	\$1.16	\$0.44
Average (range)	\$0.61 (0.58 – 0.68)	\$1.17 (0.96 – 1.84)	\$0.69 (0.53 – 0.80)	\$0.33 (0.25 – 0.41)	\$0.35 (0.25 – 0.42)	\$1.39 (1.16 – 1.46)	\$0.42 (0.30 – 0.51)

*Cheapest out of homogenised, trim etc, but excluding flavoured milks.

Brands of products and workings to calculate table are all available from authors on request.

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Very cheap drinking in New Zealand: Some alcohol is more affordable than bottled water and nearly as cheap as milk, *NZ Med J* 2010;123(1324):97-101

There is a wealth of scientific evidence that policies affecting alcohol price are effective in influencing alcohol consumption, and hence reducing adverse outcomes due to hazardous alcohol use.[1, 2] Lowered alcohol prices encourage consumption and can increase alcohol-related harms, as was found in Finland, where a decrease in excise tax in 2004 led to increased deaths from alcohol-related causes.[3] Policies such as raising excise taxes, minimum pricing, incentives for low alcohol beverages/taxes on strength of alcohol and restriction on below cost sales and price based promotions can reduce consumption. The public and taxpayers should particularly welcome such measures to reduce alcohol-related harm given that some of the interventions may be cost saving to government (e.g., alcohol taxation and advertising restrictions)[4, 5] or at least be relatively cost-effective.[6]

This issue is pertinent for New Zealand, as these policies can be effective tools targeting the binge drinking culture that is placing strain on the health care system (especially emergency departments), the justice system and the private lives of many New Zealanders who live with the impacts of hazardous drinking. Controls on price are particularly effective in targeting heavy drinkers, and youth, but are unlikely to significantly impact on the relatively 'responsible' drinker who consumes a glass or two of wine with dinner.[7]

Methods – To better understand changes in the drinking culture in New Zealand over time, and how price could be an effective policy strategy in this country, we investigated temporal trends in alcohol affordability, using data collected by Statistics New Zealand (SNZ) for the Consumers Price Index (CPI). We also considered data on average hourly earnings from the New Zealand Income Survey, which collects detailed annual information on gross income from working age New Zealanders.[8] For the CPI data, prices are collected monthly for alcoholic beverages. Data collectors from SNZ personally gather alcoholic beverage prices from outlets within the 15 main urban areas during a week-long period that ends around the mid-point of each month.[9]

For comparison data on discounted beverage prices, we accessed a specific website which documents specials and discounts on alcohol offered from outlets throughout New Zealand (www.lips.co.nz), on 20 September, 2 and 9 October 2010. The price per unit was calculated using the formula: "volume of container (litres) x % alcohol by volume (mL/100mL) x 0.789 = number of standard drinks" (obtained from a NZ Government website: <http://www.nzfsa.govt.nz/consumers/food-safety-topics/food-processing-labelling/food-labelling/fact-sheets/fs-2003-04-alcohol-labelling.htm>).

Results – The data show that the average price of alcohol has increased over the past ten years (Table 1) and the highest increase in percentage terms has been for a glass of beer at a licensed premise and for cask/white wine. For comparison, the price of two litres of milk has also increased over this time, proportionately a little more than a litre of whisky or a dozen bottles of beer.

Although the price of alcohol has increased over the past decade, the affordability of alcohol has actually *increased*, due to increases in average hourly earnings outstripping the percentage increases in alcohol prices. This is shown in Table 2 and Figure 1, which presents the minutes taken to earn sufficient alcohol to reach the legal blood alcohol limit (currently a blood alcohol limit of 80mg/dL), based on a conservative value of four standard drinks in each alcohol category for an average individual adult. For example, in 1999, it would have taken a working person 16.4 minutes to earn enough money (if earning the average hourly wage) to buy sufficient whisky to become intoxicated, but in 2009, it would have only taken 13.2 minutes to achieve this. Of particular note is the absolute affordability of cask wine – if this type of alcohol is used to achieve intoxication, it is particularly cheap, costing only \$2.78 for an average working adult to be legally unfit to drive in 2009.

Table 1: Average cost (\$) of alcohol, milk and bottled water in New Zealand 1999-2010

Year	Whisky (liquor store, 1 L*)	Cask / white wine (supermarket & liquor store, 3 L, 30 sd*)	Beer – 1 dozen bottles (supermarket & liquor store, ~3.96 L, 12 sd*)	Beer glass (licensed premises, 0.4 L, 1.3 sd*)	Milk – standard homogenised (2 L*)	Bottled water, (0.75 L*)
1999	34.87	16.03	16.34	3.16	2.64	NA
2000	35.41	16.24	16.53	3.21	2.67	NA
2001	35.92	16.73	16.68	3.33	2.91	NA
2002	37.05	17.03	17.31	3.47	3.02	NA
2003	36.94	17.41	17.65	3.62	2.80	NA
2004	37.34	18.17	18.31	3.80	2.87	NA
2005	37.68	18.44	18.52	3.98	3.02	NA
2006	38.28	18.71	18.33	4.15	2.91	1.81
2007	39.41	19.39	18.43	4.33	2.80	1.85
2008	40.58	20.16	18.02	4.57	3.27	1.88
2009	42.01	20.83	18.98	4.84	3.22	2.00
2010	42.94	21.80	19.50	4.95	3.41	2.02
Overall % change (1999-2010)	18.8%	26.5%	16.2%	35.1%	22.8%	10.4% (2006-2010)

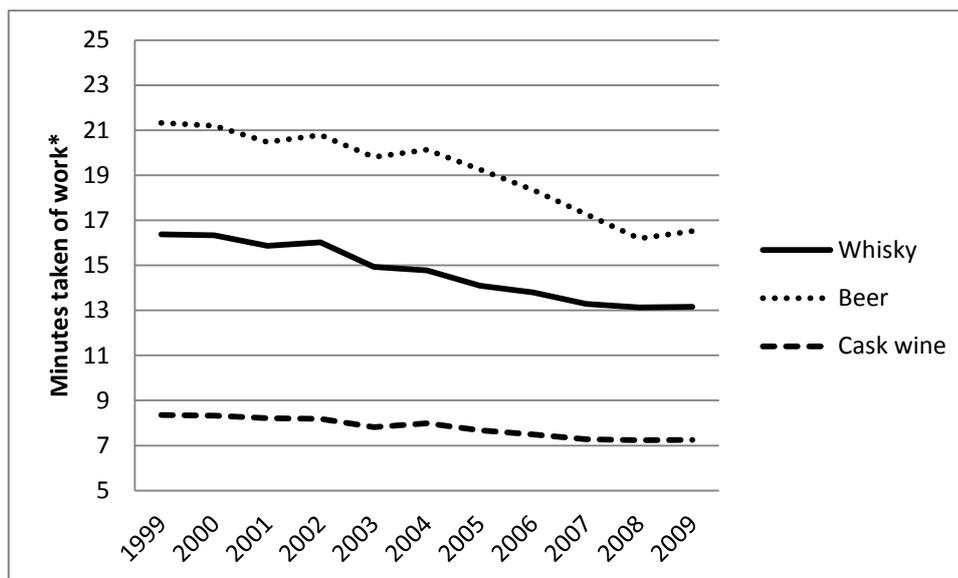
*Average over the quarters; sd = standard drink; NA = data not available for these years

Table 2 Alcohol affordability in New Zealand over time (1999 – 2009)

Year	Average hourly earnings (gross)*	Minutes taken to earn enough wages to pay for sufficient alcohol to reach the legal limit for intoxicated driving** (\$ needed)					
		Whisky		Beer		Cask wine	
		Minutes	\$	Minutes	\$	Minutes	\$
1999	15.33	16.38	(4.18)	21.32	(5.45)	8.36	(2.14)
2000	15.60	16.34	(4.25)	21.19	(5.51)	8.33	(2.17)
2001	16.30	15.87	(4.31)	20.47	(5.56)	8.21	(2.23)
2002	16.65	16.02	(4.45)	20.79	(5.77)	8.18	(2.27)
2003	17.82	14.93	(4.43)	19.81	(5.88)	7.81	(2.32)
2004	18.19	14.78	(4.48)	20.13	(6.10)	7.99	(2.42)
2005	19.24	14.10	(4.52)	19.25	(6.17)	7.67	(2.46)
2006	19.99	13.79	(4.59)	18.34	(6.11)	7.49	(2.49)
2007	21.35	13.29	(4.73)	17.27	(6.14)	7.27	(2.59)
2008	22.26	13.13	(4.87)	16.19	(6.01)	7.24	(2.69)
2009	22.98	13.16	(5.04)	16.52	(6.33)	7.25	(2.78)

* New Zealand Income Survey; **for the average person 4 standard units (120ml of whisky, 4 glasses (4 x 100ml) of cask wine at 12.5% alcohol, 4 x 330ml beer bottles at 4% alcohol).

Figure 1: Time trends in alcohol affordability in New Zealand (data as per Table 2)



* Minutes taken to earn enough wages (on the average wage) to pay for sufficient alcohol to reach the legal limit for intoxicated driving (see Table 2 for further details).

Discussion – These results indicate how alcohol has become more affordable in this last decade and it is probably the cheapest recreational drug on the New Zealand market (though we do not have good data on average cannabis prices). However, our results for average affordability are somewhat simplistic in that we considered “gross hourly earnings” and New Zealand adults are subject to variable income tax rates (albeit with relatively little change in tax structures over this last decade). So it is likely that a few extra minutes would need to be added to the results in Table 2 for the “average” working adult to purchase the “average” priced beverage to reach intoxication levels. But countering this is that price-sensitive consumers (especially youth) can easily purchase alcohol at way below the average prices in Table 2. For example, our searches (using the website www.lips.co.nz, see *Methods*) showed that 3 litres of white cask wine can be bought for as little as \$16.99 (62c per standard drink at 11.5% alcohol; other specials on 13% alcohol content cask wine translate to 63c per standard drink) and a standard 750ml bottle of wine can sometimes be bought for \$5 (65c per drink). Similarly, a litre of spirits can be bought for \$25 (in two for \$50 specials, 78c per standard drink for spirits containing 40% alcohol) and 12 bottles of 5% beer for \$9.99 (64c per standard drink). By way of comparison, a glass of milk (250ml) costs 43c using the average 2010 CPI prices and a glass of bottled water costs 67c. Thus a glass of wine or a bottle of beer can cost not much more than a glass of milk, and less than a glass of bottled water. Ready-to-drink (RTD) alcohol drinks, premixed with soda, and highly laden with sugar, flavours and sometimes caffeine, are a more recent phenomenon that have not been monitored by SNZ in their data collection for the CPI. These commonly retail at around \$1 to \$1.50 per standard drink although discounts occasionally offer these at less than a dollar per unit of alcohol.

Given this background we favour a situation where the negative externalities of alcohol use (to public health and society) are better reflected through higher alcohol prices (via taxation). We certainly do not need a situation where the affordability of alcohol keeps increasing and is as affordable as bottled water and nearly as affordable as milk. We favour government action on raising alcohol excise tax, as recommended by the Law Commission’s Review document.[10] Consideration should also be given to:

- Bans on below cost discounts and any marketing around beverage pricing;
- Having a minimum price per alcohol unit (which would help address the issue of relatively cheap cask wine and RTDs). But we acknowledge that much higher alcohol taxes and bans on price-related marketing may obviate the need for minimum prices;
- Possibly other restrictions on RTDs, given their likely key role in fuelling the binge drinking culture in New Zealand.

These actions should ideally be done in conjunction with other particularly cost-effective interventions of restrictions on alcohol marketing and sponsorship; restrictions on alcohol availability through limiting the density and opening hours of off licence premises and reducing the legal blood alcohol level for driving. Ultimately New Zealand society might wish to strive to create an environment where the pattern of alcohol use is as per the traditional one of such European countries as Spain and Italy, where alcohol is generally consumed with meals. Perhaps a citizen jury or citizen panel could be convened to explore if this type of direction should be pursued?

Finally, New Zealand needs to have an alcohol price surveillance system for collecting all relevant price data and regularly reporting it to the public and policy makers. Ad hoc unfunded research (as in this study) should be replaced by a routine government-funded surveillance system.

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Disclaimer: Both authors have taken advantage of low cost alcohol prices during the conduct of this study.

Acknowledgements: We thank Statistics New Zealand staff for supplying the time series CPI data and to Dr Murray Laugesen for suggesting this analysis.

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