

## **Tax Working Group Public Submissions Information Release**

### **Release Document**

**September 2018**

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In preparing this Information Release, the Treasury has considered the public interest considerations in section 9(1) of the Official Information Act.



## **Submission to the Tax Working Group on the Background Paper – Future of Tax**

### **About Alcohol Healthwatch**

Alcohol Healthwatch is an independent charitable trust working to reduce alcohol-related harm. We are contracted by the Ministry of Health to provide a range of regional and national health promotion services. These include: providing evidence-based information and advice on policy and planning matters; coordinating networks and projects to address alcohol-related harms, such as alcohol-related injury, fetal alcohol spectrum disorder and supply to minors; and coordinating or otherwise supporting community action projects.

Thank you for the opportunity to provide feedback on the Submissions Background Paper – Future of Tax. We acknowledge that our submission will be publicly released (with our email address withheld) and have noted the Official Information Act and privacy considerations apply.

We would like to speak to this submission if the opportunity arises.

If you have any questions on the comments we have included in our submission, please contact:

Dr Nicki Jackson  
Executive Director  
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## Executive Summary

1. Alcohol Healthwatch **supports** the Tax Working Group's review seeking to identify a fair tax system that positively impacts on the well-being of all New Zealanders.
2. Alcohol Healthwatch **believes** that the current approach to alcohol excise tax is unfair to many New Zealanders.
3. Alcohol Healthwatch **suggests** that the increasing affordability of alcohol has played a significant role in the increasing prevalence of hazardous drinking in New Zealand.
4. Alcohol Healthwatch **believes** that the current level of alcohol excise is not meeting its purpose of correcting for the externalities of alcohol use and reducing the problems associated with alcohol use.
5. Alcohol Healthwatch **believes** that the level of alcohol excise should reflect the level of harm that alcohol causes to drinkers as well as to others. In New Zealand, the harm to people from other peoples drinking is higher than the harm to the drinker; this must be given greater consideration in determining alcohol excise rates.
6. Alcohol Healthwatch **recommends** an urgent increase to alcohol excise rates, by at least 50% across all alcohol products. On average, this would raise the price of alcohol by at least 10%. Excise rates should be adjusted annually to take into account changes in income as well as to offset any strategies used by retailers to not pass on increased rates to consumers.
7. Alcohol Healthwatch **recommends** that the level of wine excise should be corrected immediately to account for a global shift towards higher strength wines. All wine should be taxed by alcohol content, not volume of beverage. If a producer is unable to determine the exact alcohol content in their product, then the level of excise tax should be raised from being based on 10% alcohol strength to 14%. This current anomaly in excise results in the government, as well as taxpayers, losing out on millions of dollars of excise revenue because of the incorrect taxing of wine products.
8. Public opinion polling by UMR in February 2018 showed that almost two-thirds (63%) of New Zealanders polled **supported** increases in alcohol prices if the revenue was earmarked for the funding of mental health and addiction services.
9. Alcohol Healthwatch **supports** the use of the Living Standards Framework to assess the effectiveness of the tax system. In relation to alcohol excise, Alcohol Healthwatch **recommends** that Treasury considers the regressive characteristics of alcohol taxes in economic terms against the significant potential for reductions in health inequalities.



10. To achieve a fairer and more equitable approach to taxing alcohol, Alcohol Healthwatch **recommends** the following approaches be considered:
  - a. Requiring alcohol to be taxed proportional to alcohol content (volumetric taxation), with a higher rate for high strength beverages especially spirits;
  - b. Implement Minimum Unit Pricing alongside increases in excise tax;
  - c. Increase the Health Promotion Agency levy to fund replacement of alcohol sports sponsorship (at a minimum);
  - d. Require multi-national alcohol companies to be more transparent about their financial accounts (to assist with determination of tax avoidance); and
  - e. Legislate requiring alcohol manufacturers, importers and wholesalers to file annual tax returns to the Government, to be made available to public (similar to requiring the disclosure of tobacco products sold in New Zealand under section 35 of the Smokefree Environments Act).

## Background

### 1. Current structure for taxing alcohol products in New Zealand

1.1 Rates of excise tax vary by type of beverage and alcohol strength. Beer (>2.5% alcohol content) is taxed according to its alcohol content, whereas wine is taxed according to the volume of alcohol sold. Spirits are taxed by alcohol content or by volume of product, depending on the strength of the spirits or spirit-based products for sale (Table 1).

Table 1. Excise rates of alcohol products (as at July 2017)

Alcohol strength (ABV)	Type of beverage		
	Beer	Spirits (including RTDs)	Wine
>1.15-2.5% ABV	43.573 cents per litre of beverage	43.573 cents per litre of beverage	
>2.5% ABV for Beer >2.5%-6% ABV for Spirits & other beverages	\$29.054 per litre of alcohol	\$29.054 per litre of alcohol	
>6-9% ABV		\$2.3243 per litre of beverage	
≤14% ABV for Wine >9-14% of ABV for Spirits		\$2.9054 per litre of beverage	\$2.9054 per litre of beverage
>14% ABV			\$52.916 per litre of alcohol
>14-23% ABV		\$52.916 per litre of alcohol	
≥23% ABV			

1.2 The combination of alcohol excise types (calculated by volume or alcohol content) means that some products attract a tax advantage. Where tax is based on a band of alcohol strength (e.g. 6-9%) and volume of beverage, it is clearly advantageous for producers to develop a product at the upper end of the band that is consequently viewed to be higher quality. In this way, they pay the same amount of excise as a product with lower alcohol strength. This anomaly has implications for tax revenue and the strength of alcoholic products in the New Zealand market.

1.3 For example, wine in New Zealand is taxed at a rate as if it contains 10% alcohol content. Alcohol Healthwatch believes that this requires correction and is discussed in more detail below.

1.4 There are also anomalies for RTDs between 6-9% alcohol strength. The Law Commission has demonstrated these anomalies clearly in their report (Figure 1). (1)

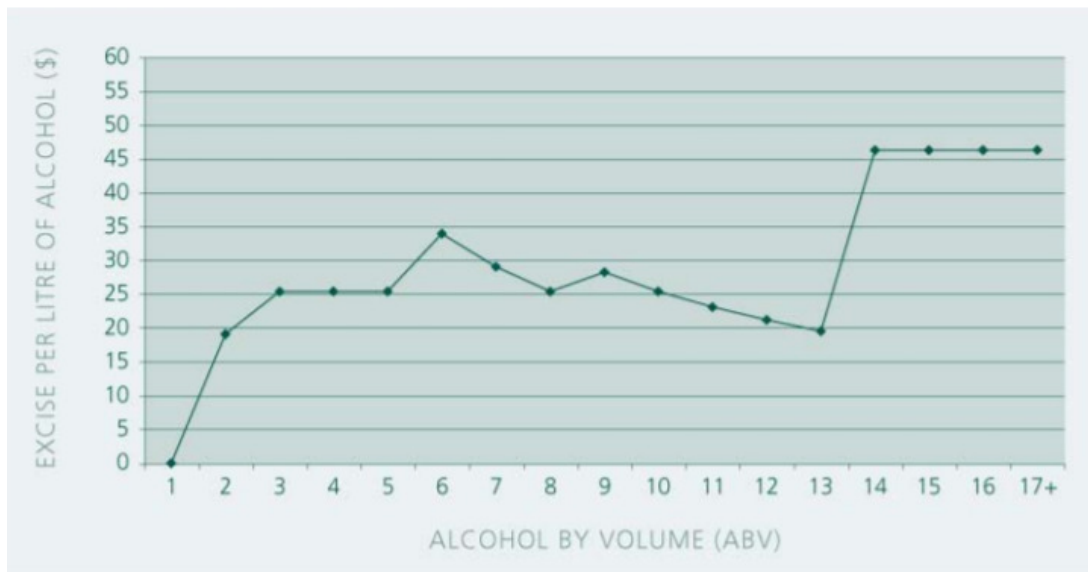


Figure 1. Alcohol excise tax rates (1)

- 1.5 Every year, on July 1, excise rates are adjusted for inflation (indexed to the Consumer Price Index).
- 1.6 Table 2 shows the proportion of the price of commonly-purchased alcohol products that is alcohol excise tax. Among these products (not including low-priced or high-priced products), the lowest proportion of tax is found in wine products (17-20% of retail price is tax), followed by beer (20-25% is tax), RTDs (approx. 30% is tax), and spirits (55-60% is tax).

Table 2. Prices of alcohol products (as at January 2018) and the proportion that is excise tax.

Product	Retail Price	Excise tax	Excise % of price	# standard drinks	Price per standard drink
<b>Beer</b>					
<b>DB Export Gold</b>	\$22.99 (15-pack, 330ml, 4%)	\$5.75	25%	15.6	\$1.47
<b>Lion Red</b>	\$26.99 (15-pack, 330ml, 4%)	\$5.75	21%	15.6	\$1.73
<b>Tui</b>	\$14.99 (6-pack, 440ml, 4%)	\$3.07	20%	8.3	\$1.80
<b>RTDs</b>					
<b>Woodstock</b>	\$13.99 (6-pack, 330ml, 7%)	\$4.60	33%	10.9	\$1.28
<b>Vodka cruiser</b>	\$22.99 (12-pack, 250ml, 7%)	\$6.97	30%	16.5	\$1.39
<b>Spirits</b>					
<b>Smirnoff Red</b>	\$36.99 (1L, 37.5%)	\$19.84	54%	29.6	\$1.25



<b>Yankee Dark Rum</b>	\$29.99 (1L, 37.5%)	\$19.84	66%	29.6	\$1.01
<b>Wine</b>					
<b>Brancott Estate</b>	\$10.99 (750ml, 13.5%)	\$2.18	20%	8.0	\$1.38
<b>Villa Maria</b>	\$13.00 (750mL, 12.5%)	\$2.18	17%	7.4	\$1.76

1.7 As at January 16 2018, a bottle of wine (containing 7.7 standard drinks) could be purchased from Countdown supermarkets for \$5.99 (Figure 2). This equates to 78c per standard drink.

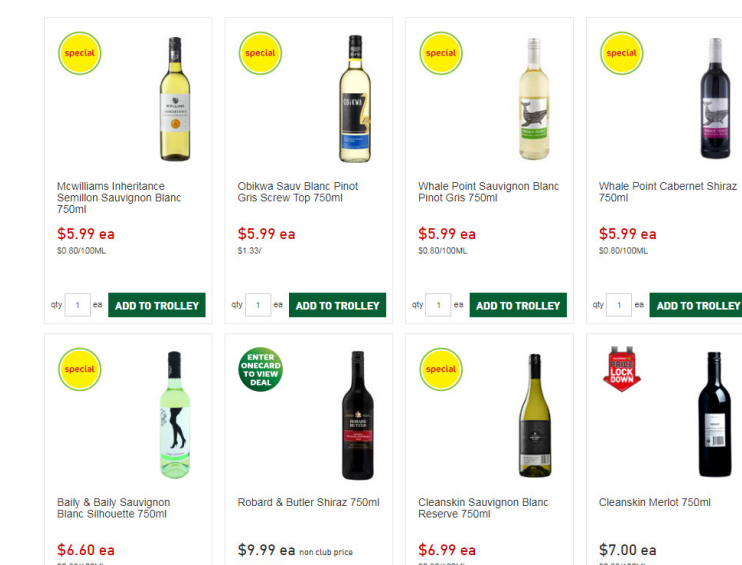


Figure 2. Four bottles of wine (750mL) currently available for sale at the price of \$5.99.

1.8 These bottom-dollar prices of wine clearly illustrate the paradoxical situation whereby a bottle of wine costs almost the same as a bottle of juice.

1.9 In 2017, \$1.001 billion in revenue was received from custom and excise duty on alcohol products sold in the domestic market. (2)

1.10 This revenue was received from the 476.1 million litres of alcoholic beverages available for consumption (Figure 3).

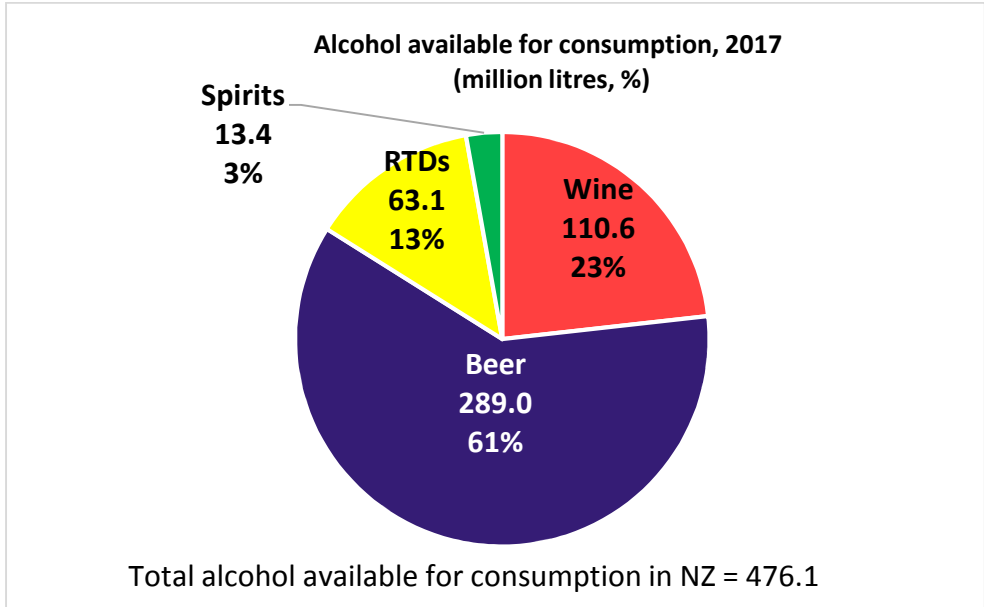


Figure 3. Alcohol available for consumption, 2017(3)

**What do you see as the main risks, challenges, and opportunities for the tax system over the medium to long-term? Which of these are most important?**

**2. Risk: Population growth will result in increased costs of alcohol harm if hazardous drinking levels are not addressed**

**2.1 Alcohol causes more harm, and has greater costs to society, than any other drug**

2.1.1 Alcohol causes more harm than any other drug available in society, e.g. tobacco, cocaine, cannabis, methamphetamine, etc. (4) This arises because of the significant harm to both users (e.g., drug specific death and illnesses, dependence and loss of relationships, etc.) and to others (e.g. crime, injury and social costs) (Figure 1).

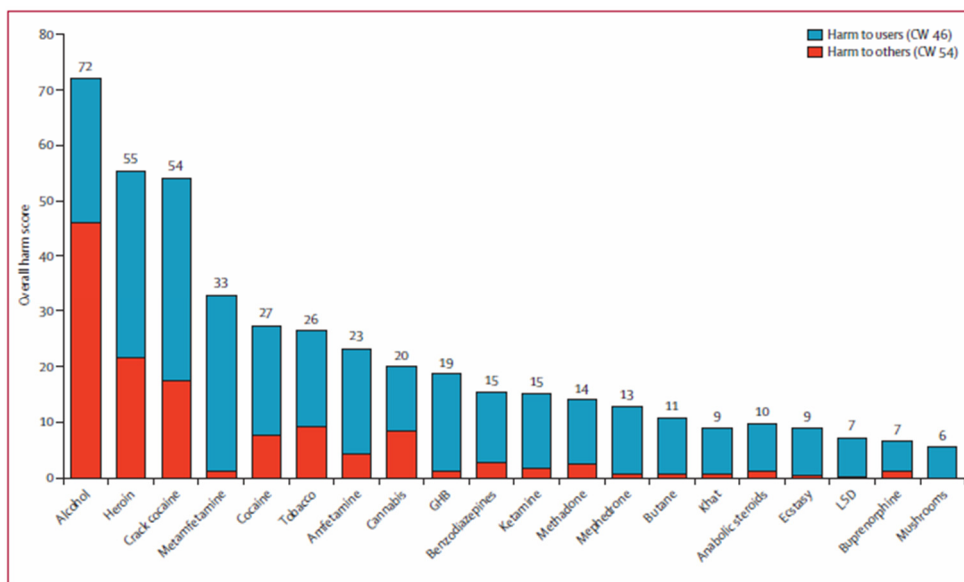


Figure 4. Drugs ordered by their overall harm scores, showing the separate contributions to the overall scores from harms to users and harm to others (4)

2.1.2 Alcohol continues to be the leading behavioural risk factor for death and Disability Adjusted Life Years lost among 15-49 year old New Zealanders (Figure 5).(5) This large population group comprises many individuals driving our economy and raising future generations to contribute to a productive and healthy society.

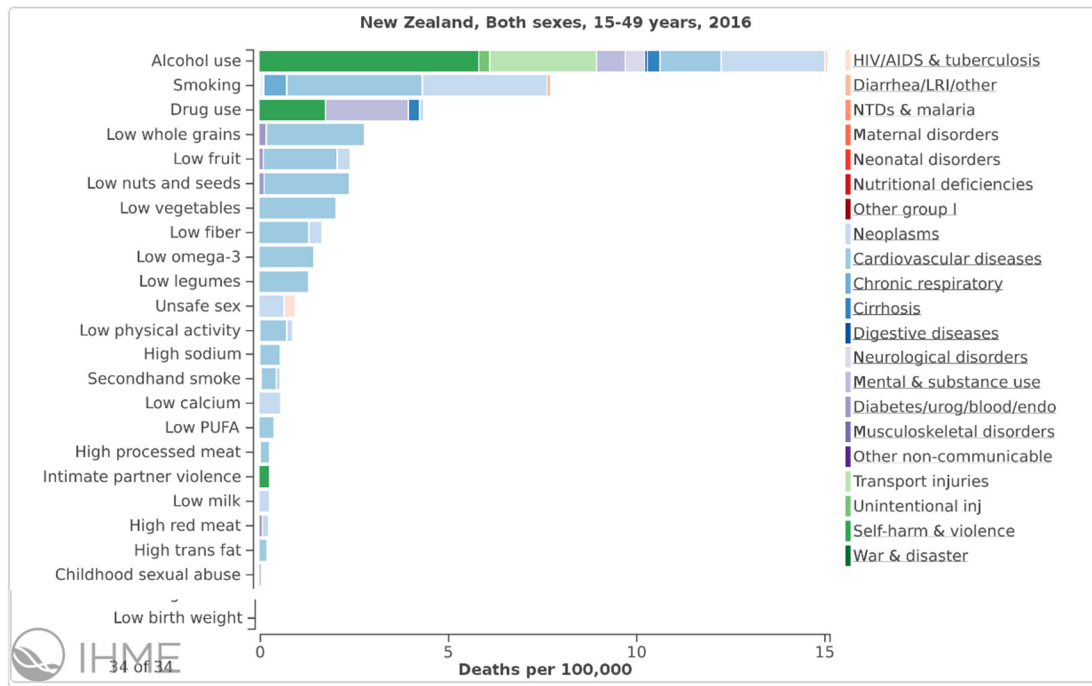


Figure 5. Mortality rates by risk factor, New Zealand, both sexes, 15-49 years, 2016. Global Burden of Disease Compare Data Visualisation (5)

- 2.1.3 In 2005/06, the direct costs to Government from alcohol harm were estimated to be approximately one-third of the \$5 billion total annual costs to society. Costs from alcohol harm comprised just over 70% of all costs from harmful drugs (excluding tobacco).(6)
- 2.1.4 It is important to note that the \$5 billion annual estimate does not include the ongoing costs associated with Fetal Alcohol Spectrum Disorder (FASD), only the direct costs of inpatient care in 2005/06 were calculated. In 2013, Easton et al. calculated that the aggregate losses in productivity from FASD ranged from \$49 million to \$200 million per year.(7)
- 2.1.5 In 2017, revenue of \$1.001 billion was received from custom and excise duty on alcohol. (2) This equates to approximately 1% of all tax paid but does not come close to offsetting the excessive cost of alcohol harm to society.
- 2.1.6 Excise taxes on alcohol products should reflect the level of harm that arises from its consumption. Alcohol Healthwatch suggests that this is not the case, as alcohol excise tax usually comprises around 25% as a proportion of the retail price, in comparison to tobacco excise tax which comprises 52-62% of the final price paid.(8,9)

## 2.2 The prevalence of hazardous drinking has been increasing across most population groups

2.2.1 Following declines in hazardous drinking in most population groups from 2007-2011, there have since been statistically significant increases in hazardous drinking in every age group over 18 years (Table 1, significant increases in drinking shown in **bold**).

Table 3. Hazardous Drinkers (AUDIT Score  $\geq 8$ , among the total population) (10)

	Hazardous drinkers (%) among the following population groups		
	Year		
	2006/07	2011/12	2015/16
<b>Total</b>	18.0	<b>14.9</b>	<b>19.3</b>
<b>All New Zealand men</b>	26.0	<b>21.6</b>	<b>26.6</b>
<b>All New Zealand women</b>	10.6	<b>8.6</b>	<b>12.3</b>
New Zealanders aged 15-17 years	19.5	11.7	11.5
New Zealanders aged 18-24 years	43.2	29.9	32.5
New Zealanders aged 25-34 years	23.9	24.8	27.6
<b>New Zealanders aged 35-44 years</b>	16.6	<b>16.0</b>	<b>22.3</b>
<b>New Zealanders aged 45-54 years</b>	12.2	<b>11.7</b>	<b>18.5</b>
<b>New Zealanders aged 55-54 years</b>	12.1	<b>8.4</b>	<b>14.4</b>
<b>New Zealanders aged 66-74 years</b>	7.3	<b>5.5</b>	<b>10.0</b>
New Zealanders aged 75+ years	3.6	1.6	2.9
<b>Total Māori</b>	33.5	<b>28.6</b>	<b>32.9</b>
Māori men	43.5	37.1	36.9
<b>Māori women</b>	24.2	<b>20.9</b>	<b>29.4</b>
Total Pacific	23.4	19.3	21.1
Pacific men	33.7	29.6	29.4
Pacific women	14.0	10.7	13.3
Total Asian	5.7	4.2	4.7
Asian men	10.1	6.9	7.2
Asian women	1.8	1.8	2.0
<b>Total European/Other</b>	17.9	<b>14.8</b>	<b>20.4</b>
<b>European/Other men</b>	26.2	<b>21.8</b>	<b>29.0</b>
<b>European/ Other women</b>	20.2	<b>8.1</b>	<b>12.3</b>

*Population groups with statistically significant increases in hazardous drinkers are highlighted in yellow and bolded. Results for 2016/17 are not shown as the survey question changed and comparisons are not possible.*

2.2.2 These increases resulted in 179,000 more hazardous drinkers in 2015/16 than in 2012. (10) As Table 3 shows, some of the largest increases in hazardous drinking have been in New Zealanders aged 35 to 54 years.

2.2.3 As shown in Table 3, the prevalence of hazardous drinking in the 66-74 year age group has more than doubled (5.5% to 10%), and increased more than 50% among those

aged 45-54 years (11.7% to 18.5%) and 55-64 years (8.4% to 14.4%). In a recent international study of older people's drinking, New Zealand drinkers were found to have some of the highest levels of drinking across the countries studied. (11) As shown in Figure 6, these age groups comprise a significant proportion of the New Zealand population. (12)

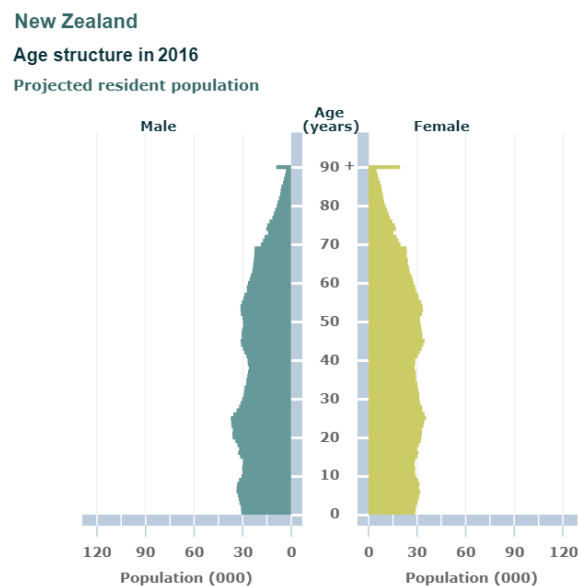


Figure 6. Population pyramid for New Zealand in 2016 (projected). (12)

- 2.2.4 When subgroups of drinkers are analysed, these increasing trends appear to be very much driven by increases in women's drinking. This has significant implications for women's health and wellbeing (acute and chronic harms), equity in society, and the prevalence of, and outcomes associated with, Fetal Alcohol Spectrum Disorder (discussed later).
- 2.2.5 There are striking inequalities in rates of hazardous drinking by sex and ethnicity. In 2016/17, 39% of Māori men and 32.3% of all Pacific men were classified as hazardous drinkers. This compares to 28.4% of European/other men. (13)
- 2.2.6 Young adults (18-24 years) still have the highest prevalence of hazardous drinking in New Zealand. In 2016/17, more than one in three young adult men (39.5%) and one in four young adult women (25.7%) could be classified as hazardous drinkers.
- 2.2.7 There have been no significant changes in patterns of consumption across any age, sex or ethnic groups between 2015/16 and 2016/17. (13) Comparisons across longer time periods are not possible due to a slight change in the survey question in 2015/16.

### 3. Risk: The real price of alcohol (relative to other goods) is decreasing and affordability is increasing markedly

#### 3.1 The real price of alcohol is decreasing

3.1.1 Changes across a range of factors (e.g. costs of alcohol production, advertising and marketing) can affect the retail price of alcohol paid by New Zealand consumers.

3.1.2 As shown in Figure 7, overall prices (adjusted for inflation) for alcohol have reduced. (14) This decrease in overall prices is mostly due to the real price of wine decreasing considerably over time, as the real price of beer has increased.

3.1.3 It is important to note that Figure 7 relates to overall prices in both on-licences and off-licences. Increasing prices in the on-licence sector may be masking trends in the real price of alcohol at off-licences over time. This is exemplified in the Law Commission Report in 2010, (1) showing that between 2000 and 2008, prices for off-licence alcohol products increased by 19% compared to all CPI goods increasing by 23%. In contrast, the prices for on-licence alcohol products rose by 45%.(14)

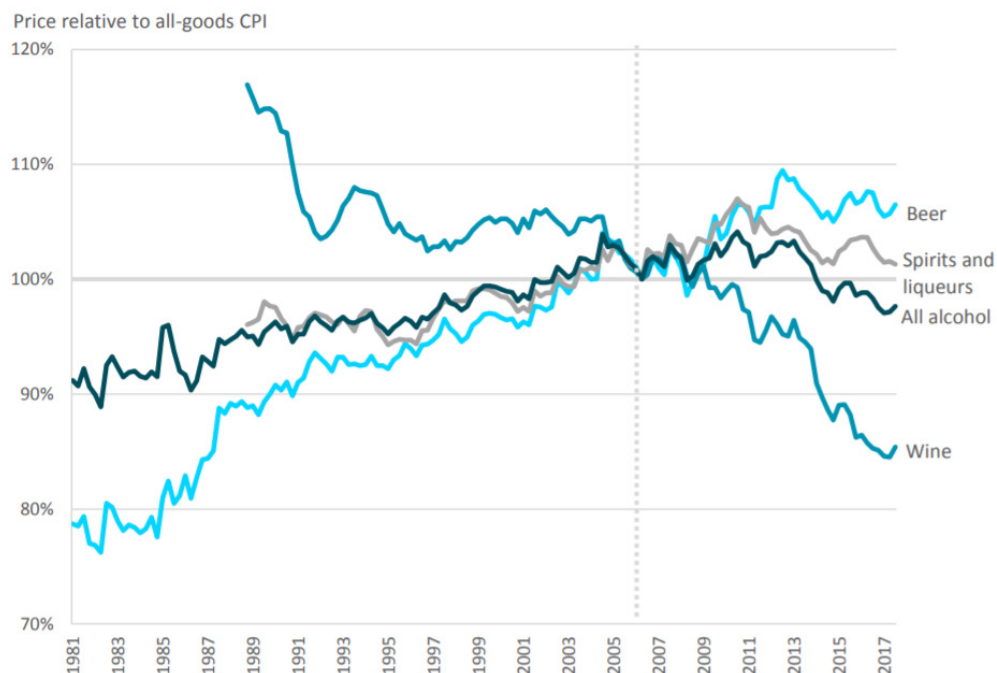


Figure 7. The real price of alcoholic beverages.(14)

## 3.2 The affordability of alcohol is increasing

- 3.2.1 Changing incomes have a considerable impact on the ability of New Zealanders to purchase alcohol.
- 3.2.2 As such, changes in income strongly influence the effectiveness of excise tax rates to reduce demand for alcohol. If excise rates are not adjusted according to changing incomes, they become less meaningful and effective over time.
- 3.2.3 Research has shown that alcohol has become more affordable over the past two decades. (15) In 2017, wine was 20% more affordable than it was in 2013 (Figure 8). (14) On average, beer, wine and spirits have all become more affordable.

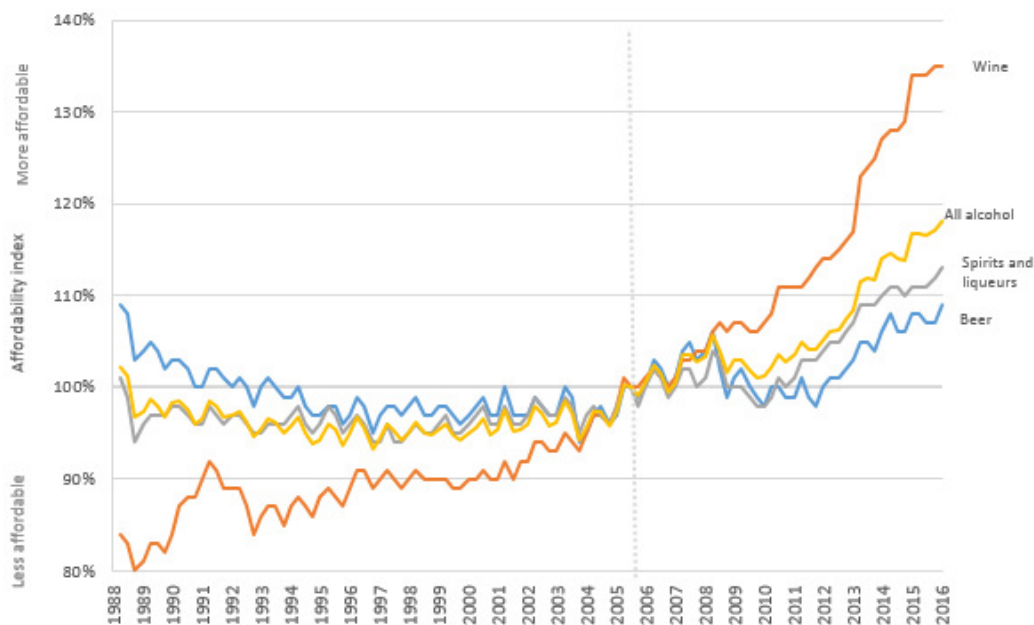


Figure 8. Changes in affordability of alcohol products in New Zealand (1988 – 2016). (14)

- 3.2.4 This has resulted in increased alcohol purchasing power among consumers. Every year, New Zealanders spend more than \$4 billion on alcohol products. (1,16) As real prices have reduced, consumers can purchase more alcohol every year for the same price. With higher incomes, greater quantities and/or higher-priced products can be purchased.
- 3.2.5 Research has shown that purchases and consumption of alcohol are linked to both its price and affordability. (17,18) When incomes increase and the real price decreases, consumption levels tend to go up. (15)
- 3.2.6 New Zealand's experience is similar to that of Australia, whereby the price of wine decreased from 1980 to 2012 and the affordability index of wine increased significantly





from 70 to 105.(19) These changes are also apparent in the United Kingdom.(20) The box below shows how the price of cask wine (a beverage commonly preferred by dependent drinkers) has not kept pace with inflation in New Zealand.

**In 1988, a 3L cask of wine cost \$15. An inflation price in 2018 (Quarter 1) would be \$30.14.**

**In 2018 (30 years later), it can be purchased for \$19.79.**



## What principles would you use to assess the performance of the tax system?

### 4. Principles for assessment of the tax system: Living Standards Framework

#### 4.1 Goals of alcohol excise tax

- 4.1.1 The purposes of generating alcohol excise tax should be fourfold (21,22):
- To cover the cost of the externalities associated with consumption;
  - To alter alcohol consumption behaviour in order to reduce associated harms;
  - To prevent drinking initiation; and
  - To generate revenue to fund public services.
- 4.1.2 In New Zealand, excise and customs duties are deemed to be administratively efficient in serving these purposes. (23)

#### 4.2 The Living Standards Framework as a basis for taxing alcohol

- 4.2.1 Alcohol Healthwatch **supports** the use of the Living Standards Framework to measure the performance of New Zealand's tax system.
- 4.2.2 Alcohol use has major direct and indirect negative effects on three of the capitals that encompass the Living Standards Framework. Alcohol production (e.g. growing grapes for wine) also requires significant amounts of water (a form of natural capital), but the water footprint of alcohol is not discussed further in this submission.

#### 4.3 Impact of alcohol use on financial and physical capital

- 4.3.1 The level of alcohol use in a population is negatively correlated with economic growth; the higher the consumption, the lower the growth. (24)
- 4.3.2 It is acknowledged that every stage of alcohol production and sale creates employment. In addition, alcohol generates significant revenue through exports. In 2017, the export value of wine was \$1.6 billion (a record high), making it New Zealand's 5<sup>th</sup> biggest export product. (25)
- 4.3.3 However, the cost of alcohol-related harm to society needs to be given the greatest weight in decisions relating to alcohol excise tax, rather than the role of the alcohol industry in the economy. It is argued that "the output, income and employment generated by the alcohol industry are not measures of social benefits attributable to alcohol" because they could be replaced by other industries.(26)

- 4.3.4 Hazardous drinking is associated with a higher risk of unemployment. In 2005/06, it was estimated that the labour cost for lost output associated with alcohol was approximately \$1.8 billion.(6) Three-fifths of this amount (\$1.1 billion) was due to excess unemployment. This was followed by premature death (\$0.46 billion) as a result of harmful alcohol use. (6)
- 4.3.5 Within the workplace, alcohol consumption has serious implications for both employers and employees. This can range from death and injury as a result of impairment, to absenteeism, lost productivity, and general low workforce morale. In 2008, it was estimated that 147,500 adults took one or more days off work or school due to their alcohol use.(27) A total of 84,400 adults reported experiencing harmful effects on their work, study or employment because of alcohol. (27)
- 4.3.6 As described earlier, alcohol use is the major behavioural risk factor leading to death and disability in New Zealanders aged 15-49 years. This is a key period for employment and a population that contributes significantly to economic growth.

#### **4.4 Impact of alcohol use on human capital**

- 4.4.1 Alcohol use also affects a drinker's development of skills and knowledge and greatly impacts on physical and mental health. Hazardous drinking can be a major barrier to full participation in society.
- 4.4.2 The impact of alcohol on physical health is enormous. Major physical harms begin in utero, through exposure of alcohol to the developing fetus. Alcohol is the most harmful of all drugs to the fetus, and is classified as a neurobehavioral teratogen. (28)
- 4.4.3 Alcohol exposure during pregnancy causes developmental abnormalities in the fetus, known as Fetal Alcohol Spectrum Disorder (FASD). FASD is the leading preventable cause of intellectual disability in the western world. Secondary disabilities such as mental health disorders, school failure, unemployment, alcohol and other drug dependence and trouble with the law may arise in persons affected by FASD. (29)
- 4.4.4 It is estimated that at least 600 children (but likely many more) in New Zealand are born with FASD. (30) It is also estimated that FASD affects half of the children and young people in Child, Youth and Family Care (now known as Oranga Tamariki – Ministry for Children). (31)
- 4.4.5 During childhood, alcohol consumption by a parent or guardian places children at high risk of death from maltreatment. In one New Zealand study, 17% of respondents who had a heavy drinker in their life reported that their children were negatively affected by this person's drinking. Eleven percent of those with children living in the household indicated that the child had been yelled at or verbally abused because of someone else's drinking. Seven percent of respondents with children in the household reported



that children had witnessed serious violence in the home because of someone else's drinking. (32)

- 4.4.6 During adolescence, alcohol consumption can have irreversible effects on brain development and can have acute effects on learning and memory. These acute and long-term effects can have a profound impact on future success and wellbeing. Longitudinal research of New Zealand and Australian adolescents found an inverse, dose-response relationship in the relationship between the number of alcohol-related harms a young person experienced and their likelihood of finishing school.(33)
- 4.4.7 Alcohol consumption during adolescence also has significant impacts on mental health. There is a large body of research demonstrating the links between alcohol and poor mental health. (34,35) It is well-known that alcohol use and abuse can worsen existing mental health conditions, including depression.
- 4.4.8 Alcohol consumption significantly contributes to our country's alarmingly high suicide rates. Alcohol-use disorders are second highest in prevalence in suicide victims, following mood disorders. (36) In 2014, over one third (34%) of all New Zealanders who had committed suicide had alcohol in their system and a further 23 percent had a trace<sup>1</sup> of alcohol in either their blood or urine. (37) In 2015, (34%) had alcohol in their system and a further 30 percent had a trace of alcohol in either their blood or urine. In ten percent of suicides, a toxicology report was not possible.
- 4.4.9 In a study of New Zealanders aged 16-64 years, one in five (18%) reported experiencing harmful effects from someone's alcohol use (e.g. affecting their friendships or social life, home life or financial position). This is higher than the one in eight (12%) drinkers that were found to experience harmful effects from their own drinking in the past year.(38)
- 4.4.10 In the above study, more women (22.8% vs 17% of men), especially younger women (35% of women between 18 and 24 years of age), reported experiencing harms from someone else's drinking in the past year. (38)
- 4.4.11 New Zealanders with more exposure to heavy drinkers in their life have been found to be less satisfied with their life. (32) This includes lower satisfaction with life as a whole, standard of living, health, safety, achievements, personal relationships, community connectedness, future security and feelings about self. People exposed to heavy drinkers also reported that they experienced more pain, discomfort, anxiety and depression. (32)

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<sup>1</sup>ESR Reference (Trace Level (less than 5 milligrams per 100 millilitres); Trace levels of alcohol may be due to means other than deliberate ingestion.



4.4.12 Finally, the toxic and carcinogenic nature of alcohol gives rise to its causal association with least 7 forms of cancer: liver, breast, mouth, bowel, throat, larynx, oesophagus. (39) An increased risk of cancer begins at very low levels of regular alcohol use. (40)

4.4.13 Among New Zealand women drinkers, cancer is the greatest cause of death attributable to alcohol (of which breast cancer is most common). (40)

## 4.5 Impact of alcohol on social capital

4.5.1 It is also clear that alcohol use in a community impacts on attitudes and norms in relation to coordination and collaboration between people. Social connections can be compromised in a neighbourhood that has high levels of drinking.

4.5.2 Perceptions of safety can influence the willingness of the community to venture into their neighbourhood to form healthy relationships. When the perceptions of Auckland children (aged 9-12 years) were examined in the “Kids in the City” study, aspects of neighbourhoods that children most disliked included drunk people (in the inner-city and low income suburban neighbourhoods).(41) Noise from drunken parties in some lower-income suburban neighbourhoods also kept children awake at night.(41)

4.5.3 In the 2016 New Zealand Quality of Life Project undertaken across nine Councils, respondents were asked to report on the issues impacting on their perceived problems in their city or local area in the last 12 months, as well as their sense of safety in their homes, neighbourhoods and city centres. More respondents reported that alcohol and drug issues were the biggest problem in their neighbourhood, compared to any other crime and safety issue. Six in ten (60%) respondents in the seven city areas perceived alcohol or drugs problems, or anti-social behaviour associated with the consumption of alcohol, to be a problem in their city or local area, with two in ten (19%) rating it ‘a big problem’ and four in ten (41) ‘a bit of a problem’. The level of perceived problems with alcohol and drugs did not changed across the 2012, 2014, and 2016 surveys.(42)

4.5.4 Perceptions that alcohol and drug consumption cause problems in one’s neighbourhood will undoubtedly influence their willingness to engage with others in the community and feel a sense of connection to their neighbourhood. New Zealand research has found that feelings of safety are significantly associated with a sense of community (which is imperative to establish social capital).(43)

## 5. Principles for assessment of the tax system: Fairness and equity

### 5.1 What is ‘fair’ in relation to alcohol excise tax?

5.1.1 Alcohol Healthwatch **recommends** that a ‘fair’ system in relation to alcohol tax is one whereby the greatest positive impacts are demonstrated among low-income drinkers that commonly experience the highest levels of alcohol harm.



5.1.2 Internationally, it has been shown that disadvantaged populations disproportionately experience higher levels of harm (alcohol-related death and hospitalisation) compared to other groups with a similar drinking pattern. (44,45)

5.1.3 Moderate drinkers of low socio-economic status have also been found to experience higher levels of harm than more advantaged drinkers. (44)

## 6. Principles for assessment of the tax system: Meeting Treaty of Waitangi obligations

### 6.1 A fair system should meet Treaty of Waitangi Obligations

6.1.1 A fair system in relation to alcohol excise tax should also be assessed in relation to reducing alcohol-related harm to Māori and, in particular, reducing the inequities in harm between Māori and non-Māori. This is consistent with the Crown meeting its Treaty obligations.

6.1.2 It is well-documented that Māori experience disproportionately more alcohol-related harm than other ethnic groups. (1) This includes:

- Māori men having a death rate from alcohol which is more than twice that of non-Māori.
- Māori being more likely to be apprehended by police for an offence that involves alcohol.
- Māori being more likely to experience harmful effects on areas such as financial position, work, study or employment, injuries and legal problems as a result of their drinking compared with other New Zealanders.
- Māori women suffering more adverse effects as a result of other people's drinking than any other sub-group by ethnicity and gender.

6.1.3 This level of harm does not reflect biology, rather it represents decades of structural and institutional discrimination, (46) differences in access to key conditions that affect opportunities in life (adequate income, housing, employment) and the environments in which many Māori live (neighbourhoods with more alcohol outlets).

6.1.4 Alcohol Healthwatch **strongly recommends** that inequities in alcohol consumption and harm (between Māori and non- Māori) be used as indicators of performance of a fair tax system.



## **7. Principles for assessment of the tax system: Changing behaviour and reducing harm**

### **7.1 Reduced population consumption**

- 7.1.1 Following economic theory, price is a strong determinant of alcohol consumption. Of all research examining strategies to reduce consumption and harm, the effects of price changes have been the most extensively studied.
- 7.1.2 Systematic reviews and meta-analyses have pooled the studies on price elasticities and effects of price changes on consumption. The consistency of the research demonstrating the effects of price on consumption has resulted in many organisations (e.g. World Health Organisation, US Center for Disease Control, UK National Institute of Clinical Excellence) recommending that pricing policies are one of the most potent policy interventions to reduce both individual and population levels of consumption. (47)
- 7.1.1 A wide body of international evidence shows that, on average, an inverse relationship exists between alcohol excise tax and price and consumption of alcohol. That is, when the price of alcohol goes up by 10%, overall consumption reduces by 3% to 10%. (48) In New Zealand, the Ministry of Justice (in their examination of alcohol pricing policies) used the price elasticities modelled by the Sheffield Alcohol Research group that are determined by the type of drinker, place of purchase and type of beverage purchased.(49)
- 7.1.2 In Australia, temporal analysis of price changes and affordability of alcohol over time has shown that when the price and affordability of alcohol changes, consumption is affected for up to eight years.(19)
- 7.1.3 Higher alcohol prices have also been shown to make young people less likely to transition from abstainer to moderate drinker (and from moderate drinker to heavy drinker).(47) New Zealand's low-risk drinking guidelines (50) recommend that not drinking alcohol is the safest option for children and young people under 18 years of age. Currently, 56% of New Zealanders aged 15-17 years consumed alcohol in the past 12 months, and one in seven of these were classified as hazardous drinkers. (13)

### **7.2 Reduced acute and chronic alcohol-related harm (and associated costs)**

- 7.2.1 There is strong evidence demonstrating that alcohol excise taxes and price interventions reduce alcohol-related harm. Systematic reviews have shown that increases in alcohol prices reduce alcohol-related disease and injury outcomes, alcohol-impaired driving, motor vehicle crashes, motor vehicle injuries, death from cirrhosis, alcohol dependence, sexually transmitted infections, suicide, violence (including rape, robbery, and violence towards children (Table 4). (22,48,51)

Table 4. The price elasticity of various health outcomes in high-income countries.(48,51)

Outcome	Price elasticity Wagenaar et al., 2009(1)	Elder et. al., 2010
Alcohol-related disease and injury outcomes	-0.347	
Alcohol-impaired driving		-0.50 to -0.81
Motor vehicle crashes		-1.20
Motor vehicle injuries	-0.112	-0.1 to -0.27(2)
Death from cirrhosis		Inverse relationship between price and cirrhosis death, but there are substantial differences in the estimated strength of this relationship
Alcohol dependence		-1.49
Sexually transmitted diseases	-0.055	
Suicide	-0.048	
Violence	-0.022	-0.13 for rape (2) -0.09 for robbery (2), -0.12 for any violence towards children (2)
Crime and related behaviours	-0.014	-0.09 for robbery (2) -0.12 for any violence towards children (2)

(1) Results are pooled estimates of both price and tax elasticity.

(2) These figures are based on tax elasticity, which is the percentage change in an outcome of interest resulting from a 1% increase in alcohol taxation. Typically, in the situation of a taxation increase resulting in a price increase and, eventually, in a reduction of the outcome of interest, price elasticity has a higher value than tax elasticity.

7.2.2 To address alcohol use as a major risk factor for suicide, the World Health Organization recommends price increases on alcohol products, restrictions on alcohol advertising and sponsorship and reduced availability and accessibility of alcohol.(52,53)

7.2.3 Suicide rates among young men appear to be responsive to alcohol price increases.(34,54) One study showed that, across all age groups, increases in the excise tax on beer were associated with reductions in male suicides. For the youngest males (ages 10-14), a ten percent increase in beer tax reduced the average number of suicides by 5.0 percent. The effects are slightly smaller for the older age groups, whereby a ten percent increase in the beer tax reduced the average number of suicides by 3.1 percent (ages 15-19) and 2.4 percent (ages 20-24). It may be somewhat surprising that beer taxes affected suicides by the youngest males (those ages 10-14), but this result is plausible given that children of this age do drink. (54)





### 7.3 Other considerations

- 7.3.1 **Cost-effectiveness:** Raising the price of alcohol is the **most cost-effective** (in terms of cost per Disability Adjusted Life Year saved) measure to reduce alcohol consumption. In comparison with raising taxes by 50%, reducing access to retail outlets is twice as expensive, a comprehensive alcohol advertising ban is 3-4 times more expensive, drink driving countermeasures 2-4 times more expensive, and brief interventions for heavy drinkers are 8-16 times more expensive.(55)
- 7.3.2 In 2014, an 82% increase in excise taxes was estimated by the Ministry of Justice (49) to result in net savings to society of \$339 million in the first year and \$2452 million over ten years.
- 7.3.3 **Addressing information failure:** Many drinkers are unlikely to take into account the full externalities of their alcohol use, especially in relation to having full information to recognise the long-term consequences of their consumption.
- 7.3.4 In a 2017 survey in the United Kingdom, only 10% of people mentioned cancer when asked which diseases and illnesses are linked to alcohol. Over three-quarters (77%) of respondents said they supported the idea of a cancer warning being added to the labels of alcoholic products. (56)
- 7.3.5 Although labels are required on alcoholic products stating the number of standard drinks and alcohol strength in the container, there are no other mandatory warning labels in New Zealand to inform consumers of the risks of consumption. The alcohol industry has voluntarily included a pregnancy warning label, but the label has since been shown to be subject to misinterpretation by consumers.(57) In the absence of effective warning labels, there remains significant information failure (particularly in relation to the risks of cancer).
- 7.3.6 Alcohol Healthwatch believes that increases in alcohol prices can send a signal to drinkers of the harm associated with the product (particularly in light of a lack of labelling of harms).
- 7.3.7 **Minimising adverse effects:** Alcohol excise increases are unlikely to lead to a significant increase in the home production of alcohol. It is estimated that 3% of alcohol consumed in New Zealand is produced by home production. (47) Although home brewing and distillation is increasing in New Zealand, any potential increase in home production resulting from excise tax increases is not enough to warrant inaction regarding the bulk of alcohol in the marketplace.

## How should the tax system change in response to the risks, challenges, and opportunities you have identified?

### 8. Rationale for increasing excise tax rates

#### 8.1 Recommendation to increase all alcohol excise rates by 50%

8.1.1 Alcohol Healthwatch **recommends** that excise taxes are increased by 50%, with the effect of raising the overall price of alcohol by 10%. Given price elasticities, this level of increase is estimated to have an effect of reducing population consumption by around 5%. Increases in excise tax have been recommended by the New Zealand Law Commission in 2010, and by the Prime Minister's Chief Science Advisor.(1,58)

8.1.2 Table 5 shows the potential effects of the tax increase on the retail price of a selection of alcohol products (as at 1 January 2018). Cheaper alcohol products are affected the greatest in terms of relative price increases.

Table 5. The impact on prices (of some alcoholic beverages) from a 50% increase in excise tax.

	<b>Wine 750ml</b>	<b>Wine 750ml</b>	<b>3L cask wine (11% alcohol)</b>	<b>Beer (15 pack 330ml 4%)</b>	<b>Spirits 1L (37.2% alcohol)</b>	<b>RTD 330ml (5% alcohol)</b>
<b>Retail price</b>	\$7.00	\$15.00	\$19.79	\$22.99	\$29.99	\$1.50
<b>Tax paid at current levels</b>	\$2.18	\$2.18	\$8.72	\$5.75	\$19.38	\$0.48
<b>Tax paid at 50% increase</b>	\$3.27	\$3.27	\$13.07	\$8.63	\$29.53	\$0.72
<b>New price (incl GST)</b>	\$8.25	\$16.25	\$24.80	\$26.30	\$41.31	\$1.78
<b>Increase in price</b>	<b>\$1.25</b>	<b>\$1.25</b>	<b>\$5.01</b>	<b>\$3.31</b>	<b>\$11.32</b>	<b>\$0.28</b>
<b>% increase in retail price</b>	17.9%	8.4%	25.3%	14.4%	37.7%	18.4%

\* Note: the HPA-levy is not included in the above prices

#### 8.2 Increasing excise taxes to correct for externalities

8.2.1 As shown earlier, there is a significant gap between the level of alcohol excise revenue (\$1b) and the cost to society from alcohol-related harm (\$5b).(2,6)

8.2.2 To address this gap, revenue from alcohol excise needs to be increased.

### 8.3 Correcting the current tax advantage for wine products

- 8.3.1 As described earlier, excise tax rates on beer and spirits are calculated by the alcohol content of the beverage, whereas wine (up to 14% alcohol) is taxed per volume of beverage. The rate for wine is set as if all wine had a flat rate of alcohol content of 10%. It is understood that this level was set at a time when the alcohol strength in bottles of wine was lower and alcohol content was difficult (and costly) for winemakers to assess with accuracy.(21)
- 8.3.2 This flat rate has meant that the amount of excise tax in a 12% alcohol content bottle of wine is equivalent to that in a 14% strength bottle of wine. However, for all beer and most spirits, higher strength products comprise more excise tax as tax is determined by the amount of alcohol in the product. The under-taxing of higher strength wines was presented in Figure 1.
- 8.3.3 An equivalent tax rate of 10% alcohol strength in wine is no longer meaningful in 2018. Over recent times, global wine products have increased, on average, by 2% strength in alcohol (e.g., from 10% to 12%). Today, it would be difficult to find bottles of wine in the New Zealand market that have an alcohol content of 10%. Rather many bottles of wine are in the range of 12-14% alcohol strength.
- 8.3.4 This means that at present, a 12.5% and 13.5% alcohol strength 750ml bottle of wine attract an excise of \$2.18 each. But if the rate was based on alcohol strength (the same rate as beer), they should each attract an excise of \$2.72 and \$2.94 respectively.
- 8.3.5 It is likely that the current approach simply encourages production of wine with a high alcohol content that consumers then perceive is high quality.
- 8.3.6 It is unfair to other types of alcohol products and unfair to New Zealand taxpayers that wine products are taxed at a rate below their alcohol content. If all wine products were taxed at a level of 14%, more than \$100 million dollars in extra revenue would be received by the Government to distribute to public services.
- 8.3.7 Today, it is possible for many large winemakers to determine the alcohol content within their batches of wine. The labelling requirements for all bottles requires that the alcohol strength be reported on the label, with a 1.5% margin of error for alcohol strength. This large margin is surprising given that European Union Food Standards require an accuracy of alcohol content within a 0.5% range for the labelling of wine products. (59)
- 8.3.8 Alcohol Healthwatch **recommends** that wine is taxed by alcohol content, not volume of beverage sold. If a producer is unable to determine the exact alcohol content in their product, then the level of excise tax should be raised from being based on an equivalent of 10% alcohol strength to 14% alcohol strength.

## 8.4 Increasing excise taxes to intentionally modify behaviour

8.4.1 Approximately 11% of the New Zealand population will develop alcohol abuse (7%) or dependence (4%) on alcohol during their lifetime. (60) For a product that is addictive, alcohol taxes can assist to address the harms that are associated with its addictive properties.(1) Taxes may also reduce the likelihood that heavy drinkers progress to become dependent drinkers.

8.4.2 In 2014, the Ministry of Justice (49) examined the effectiveness of a range of alcohol pricing policy options. In relation to the smallest excise tax increase examined (82%), the largest impact was on harmful drinkers (Table 6). The larger effects on harmful drinkers were estimated to be driven by their responsiveness to the considerable increase in the price of spirits. It is important to note that increases in alcohol taxes can bring about reductions in the overall quantity of alcohol consumed per year as well as in the amount consumed in an occasion. This has implications for the prevention of both acute and chronic harms associated with alcohol use.

Table 6. Changes in annual and drinking occasion consumption following excise tax increases of 82%. (49)

	% change in annual volume of alcohol consumed				% change in alcohol purchased per drinking occasion			
	All	Low-risk	Increased risk	Harmful	All	Low-risk	Increased risk	Harmful
<b>82% increase</b>	-12.2	-11.5	-11.8	-13.1	-8.6	-5.5	-9.7	-10.8

8.4.3 Although the Ministry of Justice modelled consumption changes based on an 82% increase (which would achieve a minimum price of \$1 per standard drink), the report suggested that smaller excise increases would also have net benefits.

## 8.5 Increasing excise taxes to adjust for increasing affordability

8.5.1 As described in detail earlier, the inflation-adjusted excise rates have not kept pace with increasing incomes in New Zealand.

8.5.2 Alcohol Healthwatch **strongly recommends** that excise rates are adjusted annually to take into account changing incomes.

8.5.3 In 2008 in the United Kingdom, the affordability of alcohol was addressed through the implementation of a duty escalator. Overnight, alcohol duty rates increased by 6 per cent above the rate of inflation. For the next four years, alcohol duties increased by 2 per cent above the rate of inflation.(61) Unfortunately, the affordability-related duty escalator was scrapped by 2014 (reported to be due to an intense lobbying campaign by the alcohol industry in response to pub closures).

## 8.6 Increasing excise taxes has public support

8.6.1 There is strong public support for raising the price of alcohol. In a nationally-representative UMR poll in February 2018, almost two-thirds (63%) of people polled supported increasing the price of alcohol to fund mental health and addiction services. Higher levels of support were found among NZ First voters (84%), 30-44-year-olds (68%), people of Pacific ethnicity (70%) and those with lower incomes (Table 7).<sup>(62)</sup>

Table 7. Public support for alcohol price increases. <sup>(62)</sup>

<b>Do you strongly support, somewhat support, neither support nor oppose, somewhat oppose, or strongly oppose that: The Government should increase the price of alcohol, as long as the extra money is used for mental health and addiction services</b>		
		<b>Strongly support + Somewhat support</b>
<b>Party Support</b>	National	59%
	Labour	66%
	NZ First	84%
	Green	74%
	Other	58%
<b>Ethnicity</b>	Pacific	70%
<b>Age Group</b>	30-44	68%
<b>Household Income</b>	Under \$50,000	65%
	Between \$50,000 and \$100,000	64%

## 8.7 Increasing excise taxes is the fairest approach for non-drinkers

8.7.1 In 2016/17, one in five New Zealanders reported not having consumed alcohol in the past 12 months. When examined by ethnicity, 44% of Asian and 42% of Pacific adults did not drink alcohol in the past year. <sup>(13)</sup>

8.7.2 Non-drinking taxpayers continue to bear the costs associated with New Zealand's drinking culture. By increasing alcohol taxes, the increased costs are internalised to the sellers and drinkers, instead of requiring every taxpayer to subsidise the cost of alcohol-related harm. When excise taxes increase, non-drinkers pay nothing extra yet significantly benefit from reductions in personal harm.

## 8.8 Increasing excise taxes is fair on low-risk drinkers

8.8.1 Those who generate the greatest externalities, i.e. high-risk drinkers, should pay the most in alcohol excise tax. A fair approach to alcohol tax would be one that has the most impact on heavy drinkers and the least impact on low-risk drinkers.

8.8.2 We are cognisant of the balance that must be achieved in setting the excise tax rate without unfairly impacting low-risk drinkers.

8.8.3 Currently, societal costs of alcohol-related harm are also being borne by low-risk drinkers who consume alcohol within New Zealand's low-risk drinking guidelines.<sup>(50)</sup> Alcohol Healthwatch believes that low-risk drinkers are likely to pay small amounts of alcohol excise tax per year and so will only pay a modestly small amount more if taxes are raised.

## 8.9 Moderate drinkers will have a modest increase in costs

8.9.1 In New Zealand, it is estimated that 50% of all alcohol in New Zealand is consumed in heavy drinking occasions. Although a significant proportion of alcohol is consumed by hazardous and very heavy drinkers, it is also estimated that 50% of 'moderate' drinkers engage in heavy drinking during the year. (1)

8.9.2 Moderate drinkers (those that not classified as hazardous drinkers) comprise the majority in New Zealand drinkers. With a number of them also engaging in binge or heavy drinking during the year, collectively they comprise the largest share of alcohol's burden on society. So although they are individually responsible for fewer harms than hazardous drinkers, the sheer number of moderate drinkers means that this group could also benefit from reductions in consumption.

8.9.3 In addition, it is not just heavy drinking occasions that could be addressed through tax increases. A number of moderate drinkers may also exceed the low-risk drinking guidelines (more than 2 or 3 standard drinks per day for women and men, respectively) placing themselves at risk of chronic health harms resulting from regular alcohol use.

8.9.4 Too often, the focus on the importance of alcohol taxes has been in relation to the acute harms caused by excessive drinking, despite cancer being the greatest cause of death attributable to alcohol among New Zealand women (of which breast cancer is most common).<sup>(40)</sup>

8.9.5 The Law Commission found that in 2007-08 light and moderate drinkers (50% of NZ drinkers) paid only \$38 per person in excise taxes per year, whereas the top 10% of heavy drinkers paid over \$1300 per person per year. In 2014, an excise tax increase of 82% was estimated to result in an annual increased spend of \$92 among low-risk drinkers, \$305 among increased-risk drinkers and \$710 among harmful drinkers. <sup>(49)</sup> Costs associated with a 50% increase will clearly be lower than the figures presented above.<sup>(1)</sup>

8.9.6 Alcohol Healthwatch suggests that the costs borne by non-excessive drinkers from increased excise rates are modest: the reduction in the external cost of heavy and moderate drinkers is greater than any welfare loss experienced by light drinkers who never drink heavily or regularly.



## **8.10 Excise tax increases can be considered 'progressive' for low income groups**

- 8.10.1 Effective public policies are required to reduce persistent and growing disparities in alcohol-related harm. (44)
- 8.10.2 In New Zealand in 2016/17, those living in the most deprived areas were 1.45 times (95% Confidence Interval 1.20 - 1.75) more likely to be classified as hazardous drinkers. (13) In 2015/16, those living in most deprived areas were 1.39 (1.03-1.86) times more likely to be hazardous drinkers. (10)
- 8.10.3 The differences in the prevalence of hazardous drinking also give rise to inequities in the prevalence of alcohol-related harm. New Zealand drinkers living in the most deprived areas are more likely to suffer harm from their own drinking and from the drinking of others. (63)
- 8.10.4 Alcohol Healthwatch believes that the regressiveness of alcohol taxes in economic terms needs to be considered against their significant potential to reduce health inequalities (i.e. to be progressive). (40,64)
- 8.10.5 In Australia, lower income groups have been found to be more price responsive than moderate drinkers and higher income groups. (19)
- 8.10.6 Given that low income groups experience higher levels of alcohol-related harm, they stand to benefit the most from alcohol price increases. As such, significant equity gains can be achieved from alcohol pricing policies.
- 8.10.7 In addition, as low income populations are less likely to drink they are in effect subsidising the cost of alcohol harms among higher income drinkers. In 2016, New Zealand adults in the most socioeconomically deprived areas were less likely to have consumed alcohol in the past year (70%) than adults in the least deprived areas (86%). This is a matter of fairness.
- 8.10.8 Drinkers who reduce their consumption of alcohol in response to higher prices can find themselves with more money in their weekly or monthly budget. If people spend less money on alcohol, they will spend more money on other goods, which will create jobs elsewhere in the economy. (22)
- 8.10.9 It is important to note that price increases will put some people under financial pressure if they choose not to reduce their consumption. Therefore, it is important that there are appropriate and accessible treatment and intervention options available and these are heavily promoted.



## **8.11 Increasing excise to create a fairer playing field between licence types**

- 8.11.1 Excise tax increases particularly impact the price of cheap alcoholic beverages, most of which are found for sale from off-licence premises.
- 8.11.2 New Zealanders now purchase around 75% of their alcohol from off-licences. (65) The differential in prices between off-licences and on-licences may contribute to New Zealand having the 3<sup>rd</sup> highest level of pre-loading, as found in a 25-country study. (66) Although the price differential was not found to be associated with pre-loading in this study, the study excluded the differences in price for spirits and wine between licence types (which are often much larger than the differences in prices for beer alone).
- 8.11.3 Pre-loading is a significant risk factor for violence in night-time entertainment districts. A high quality study in Hamilton (67) found that mean breath alcohol concentrations were significantly higher among those who engaged in pre-drinking than those who did not, with the effect of pre-drinking on breath alcohol concentration being larger for women than for men.
- 8.11.4 Excise tax increases that result in prices at off-licences increasing more than prices at on-licences may contribute to reducing the differential in price between licence types. In the UK, the hospitality sector has been supportive of minimum unit pricing policies for this reason.

## **8.12 Legislating the earmarking of increased tax revenue**

- 8.12.1 Alcohol Healthwatch believes that alcohol excise tax revenue should be earmarked to reduce the harms associated with hazardous drinking. Public support points to taxes being earmarked to support funding of the mental health and addiction sector.

## **8.13 Enhancing the effectiveness of increased excise taxes by implementing other evidence-based alcohol control policies**

- 8.13.1 Alcohol Healthwatch recommends that the implementation of other evidence-based alcohol control policies will enhance the effectiveness of increased excise taxes.
- 8.13.2 In particular, measures are required to reduce the availability of alcohol through restricting the density and location of outlets in addition to reducing the length of their trading hours. These approaches are underpinned by strong evidence.(1,68–74)
- 8.13.3 In addition, measures are required to restrict alcohol advertising and sponsorship, as recommended by the Ministerial Forum on Alcohol Advertising and Sponsorship. (75)
- 8.13.4 Other measures to enhance the effects of tax increases include the implementation of screening and brief interventions in primary and secondary care as well as implementation of measures included in New Zealand's Fetal Alcohol Spectrum Disorder Action Plan. (31)





## Looking to the future, is it still the best approach for New Zealand? If not, what approach should replace it?

### 9. Alternative approaches to taxing alcohol products

#### 9.1 A scaled volumetric excise tax structure

- 9.1.1 Alcohol Healthwatch suggests that alcohol products should be taxed proportional to alcohol content, with a higher rate for high strength beverages (especially spirits). This approach has also been recommended by others. (21,61)
- 9.1.2 Spirits are, on average, cheaper to produce and distribute than other drinks. It is also claimed that they should be taxed a higher rate as they are more prone to 'over-pouring' (i.e. exceeding standard measures in their servings).(21)
- 9.1.3 A volumetric approach is also likely to be the fairest approach for moderate drinkers, given higher alcohol strength products (which would receive the highest tax rate under volumetric taxing) are more likely to be preferred by heavy drinkers (64)
- 9.1.4 High quality modelling by the Sheffield Alcohol Research Group examined the most effective tax structure and pricing policies to reduce alcohol consumption and alcohol-related harm especially among low-income heavy drinkers. To achieve a 4.3% reduction in population-level alcohol-related mortality and target a reduction in inequities in harm, volumetric taxation and minimum unit pricing policy were found to be the most effective methods compared to excise tax methods which included duty bands of alcohol strength and ad valorem tax.(64)
- 9.1.5 These findings are likely to have applicability given heavy drinkers in New Zealand also disproportionately purchase lower price products.(69)
- 9.1.6 It is suggested that a volumetric tax structure, whereby all alcohol is taxed proportional to alcohol content, positively encourages the production of low strength but high quality beverages. (22) This approach is also suggested to generate more tax revenue. (22)

#### 9.2 Increase transparency in relation to the trade of alcohol

- 9.2.1 Alcohol Healthwatch **recommends** that legislation be implemented to require all alcohol manufacturers, importers and wholesalers to file annual returns to the Government.
- 9.2.2 The collection of this information is essential to design and implement an effective tax structure and pricing policies. The World Health Organization recommends that governments collect information including market shares of alcoholic beverage



categories for on-licence and off-licence alcohol sale, unrecorded consumption (e.g. home grown products, duty-free), as well as cross-price elasticity.(22)

9.2.3 Alcohol Healthwatch firmly believes that increased transparency in the reporting of alcohol companies on their gross revenue and accounts is required.

9.2.4 While some information, such as unrecorded consumption, can be difficult to collect, Alcohol Healthwatch **recommends** that alcohol manufacturers and importers are required to provide more detailed information on the amount of alcohol products they have released for sale in New Zealand market.

9.2.5 Alcohol Healthwatch believes that this approach will also increase transparency to the public and provide for better monitoring of tax avoidance behaviour.

9.2.6 Legislation to mandate alcohol returns could borrow from the legislation that requires the same for tobacco companies. Under section 35 of the Smokefree Environments Act, all tobacco manufacturers and importers must file an annual return to the Director-General of all the tobacco products (by types, by brands and by weight) released for sale in the New Zealand market. This includes the price and quantity of each product (up to the level of brand variant) released to the market. These annual returns are publicly available.

9.2.7 An examination of tax aggressiveness by Australia's major alcohol producers (many of whom are the same major producers in New Zealand) found that many companies made consistent losses and paid little-to-no tax. This was deemed by the researchers as a potential sign of aggressive tax behaviour.

9.2.8 The high-quality analysis found that the wine industry made small tax contributions to the Australian community despite having revenues four to five times that of the two beer companies examined who paid twice as much tax. (76)

9.2.9 These findings are likely to have applicability to the New Zealand context given the same companies operate in the New Zealand market. One report in the New Zealand context did find alcohol companies shifting their pre-tax incomes to low-tax countries. (77) Alcohol Healthwatch recommends increased vigilance of taxes paid by the international alcohol companies operating in New Zealand (the majority of New Zealand's largest alcohol producers are overseas-owned).

### **9.3 Increase the Health Promotion Agency levy to replace alcohol sports sponsorship (or all alcohol sponsorship)**

9.3.1 The current Health Promotion Agency levy adds a few cents or more to the price of one litre of every alcoholic beverage (regardless of alcohol strength). Each year it contributes approximately \$12 million dollars to the alcohol work of the Health Promotion Agency.(78)

- 9.3.2 Currently, the levy is not indexed at inflation. This has the effect of reducing the purchasing power of the Health Promotion Agency to fund alcohol harm reduction programmes.
- 9.3.3 Alcohol Healthwatch recommends that the Health Promotion Agency Levy is increased to address the harms from alcohol sponsorship.
- 9.3.4 By trebling the levy, the revenue from the Health Promotion Agency levy could increase to \$36 million per year (Table 8).

Table 8. Comparison between current HPA levy and the scenario of tripling the current rates.

HPA Levy	Current rates	Triple the current amount of HPA levy
Beer (2.5% ABV)	1.6152 cents per litre	4.8456 cents per litre
Wine	1.6152 cents per litre	4.8456 cents per litre
Spirits (23%+ ABV)	12.4064 cents per litre	37.2192
Estimated revenue from HPA levy for 2017	\$12 million	\$36 million

Source: (78,79)

- 9.3.5 This increased revenue could be earmarked to replace alcohol sports sponsorship, which is estimated to provide \$23 million to sports in New Zealand, \$14 million of which is indirect cash payments to clubs. Rugby receives 75% of all alcohol sports sponsorship funds. (80)
- 9.3.6 Replacing alcohol sports sponsorship was recommended by the Ministerial Forum on Alcohol Advertising and Sponsorship. (75)
- 9.3.7 A sponsorship replacement model was used when tobacco advertising was prohibited in the 1990s. The Health Sponsorship Council was established and funded from tobacco levies to replace tobacco sports sponsorship.
- 9.3.8 In a UMR poll in February 2018, 62% of New Zealanders supported restricting alcohol advertising and sponsorship in the same way as tobacco advertising and sponsorship. (62)

#### **9.4 Implement Minimum Unit Pricing alongside excise tax increases**

- 9.4.1 To enhance the effectiveness of tax increases, Alcohol Healthwatch recommends the implementation of a Minimum Unit Pricing policy that requires every standard drink to be sold for no less than \$1.40.
- 9.4.2 This minimum price would be indexed at both inflation and affordability.



- 9.4.3 On May 1, 2018, Scotland will implement its Minimum Unit Pricing policy. The Northern Territory in Australia will implement their policy on July 1, 2018. Other jurisdictions have drafted relevant legislation or have the policy on their agenda, including Ireland, Wales, and Western Australia.
- 9.4.4 Minimum Unit Pricing has been used in Canada for many years, with high quality research demonstrating that it is one of the most effective pricing approaches to reduce inequities in alcohol-related harm. (81)
- 9.4.5 Further information on the effectiveness of this policy in the New Zealand setting can be found in the report conducted by the Ministry of Justice in 2014. (49)

## 10. Conclusion

- 10.1 Alcohol Healthwatch **strongly supports** the review by the Tax Working Group seeking to identify a fair tax system that positively impacts on the well-being of all New Zealanders.
- 10.2 Alcohol Healthwatch urges the Group to reconsider the level at which alcohol excise tax is set, and recommends all excise rates are increased by at least 50%. Particular attention needs to be directed to the under-taxing of wine.
- 10.3 Alcohol use significantly affects three of the four capitals as outlined in the Living Standards Framework. Alcohol Healthwatch strongly recommends that greater weight is given to the harm to others from alcohol use in the determination of excise rates.
- 10.4 Fairness, above all, needs to be the key goal of setting alcohol excise tax. This particularly extends to the Crown's Treaty of Waitangi obligations.



## 11. References

1. New Zealand Law Commission. Alcohol in our Lives: curbing the harm. Wellington: New Zealand Law Commission; 2010 [cited 30 April 2018] Available from <http://www.lawcom.govt.nz/sites/default/files/projectAvailableFormats/NZLC%20R114.pdf>.
2. The New Zealand Treasury. Tax outturn data – February 2018. [Internet]. 2018. Wellington: The New Zealand Treasury; 2018 [cited 2018 April 30] Available from: <https://treasury.govt.nz/publications/tax-outturn-data/tax-outturn-data-february-2018>.
3. Statistics New Zealand. Alcohol available for consumption: Year ended December 2017. Wellington: Statistics New Zealand. [Internet] ; 2018 Feb. [cited 2018 April 23 April] Available from: <https://www.stats.govt.nz/information-releases/alcohol-available-for-consumption-year-ended-december-2017>.
4. Nutt DJ, King LA, Phillips LD. Drug harms in the UK: a multicriteria decision analysis. *The Lancet*. 2010; 376(9752):1558–65.
5. Institute for Health Metrics and Evaluation. Global burden of disease study (GBD 2016), New Zealand. Settle, USA: Institute for Health Metrics and Evaluation. [Internet]; 2016. [cited 2018 April 30] Available from: <http://www.healthdata.org/gbd>.
6. Slack A, Nana G, Webster M, Stokes F, Wu J. Costs of harmful alcohol and other drug use. Wellington: BERL; 2009. [cited 2018 April 23 April] Available from: [http://www.springhilltrust.co.nz/assets/files/BERL-200907-Costs\\_of\\_Harmful\\_Alcohol.pdf](http://www.springhilltrust.co.nz/assets/files/BERL-200907-Costs_of_Harmful_Alcohol.pdf)
7. Easton B, Burd L, Rehm J, Popova S. Productivity losses associated with fetal alcohol spectrum disorder in New Zealand. *N Z Med J*. 2016; 129(1440):72–83.
8. Ministry of Health. Tobacco returns 2017. Wellington, New Zealand: Ministry of Health. [Internet]; 2018. [ cited 30 April 2018] Available from: <https://www.health.govt.nz/our-work/preventative-health-wellness/tobacco-control/tobacco-returns/tobacco-returns-2017>.
9. New Zealand Customs Service. New excise duties rates for tobacco and tobacco products [Internet]. Wellington: New Zealand Customs Service; 2017 [cited 2018 Apr 30]. Available from: <https://www.customs.govt.nz/about-us/news/important-notice/new-excise-duties-rates-for-tobacco-and-tobacco-products/>.
10. Ministry of Health. Tier 1 statistics 2015/16: New Zealand Health Survey. Wellington, New Zealand: Ministry of Health. [Internet]; 2016 [cited 2018 Apr 29]. Available from: <https://www.health.govt.nz/publication/tier-1-statistics-2015-16-new-zealand-health-survey>.
11. Towers A, Sheridan J, Newcombe D. The drinking patterns of older New Zealanders: national and international comparisons [Internet]. Wellington, New Zealand: Health Promotion Agency; 2017 Dec [cited 2018 Apr 30]. Available from: <https://www.hpa.org.nz/research-library/research-publications/2017-the-drinking-patterns-of-older-new-zealanders-national-and-international-comparisons>.



12. Statistics New Zealand. Interactive population pyramid for New Zealand [Internet]. Wellington: Statistics New Zealand. n.d. [cited 2018 Apr 30]. Available from: <https://www.stats.govt.nz/tools/interactive-population-pyramid-for-new-zealand>.
13. Ministry of Health. Tier 1 Statistics 2016/17: New Zealand health survey [Internet]. Wellington, New Zealand: Ministry of Health. 2017. Available from: [https://minhealthnz.shinyapps.io/nz-health-survey-2016-17-annual-data-explorer/w\\_7a97e8ac#!/home](https://minhealthnz.shinyapps.io/nz-health-survey-2016-17-annual-data-explorer/w_7a97e8ac#!/home).
14. Health Promotion Agency. Trends in affordability of alcohol in New Zealand April 2018 [Internet]. Wellington, New Zealand: Health Promotion Agency; 2018 Apr. [cited 2018 Apr 29]. Available from: <https://www.hpa.org.nz/research-library/research-publications/trends-in-affordability-of-alcohol-in-new-zealand-report>.
15. Wall M, Casswell S. Affordability of alcohol as a key driver of alcohol demand in New Zealand: a co-integration analysis. *Addiction*. 2013;108(1):72–9.
16. Euromonitor International. *Alcoholics Drinks in New Zealand*. London, United Kingdom: Euromonitor; 2017 Jun.
17. Gallet CA. The demand for alcohol: a meta-analysis of elasticities. *Aust J Agric Resour Econ*. 2007;51(2):121–35.
18. Rabinovich L, Brutscher P-B, Vries H de, Tiessen J, Cliff J, Reding A. The affordability of alcoholic beverages in the European Union: understanding the link between alcohol affordability, consumption and harms [internet]; 2009 [cited 2018 April 30]. Cambridge, United Kingdom: Rand Europe.
19. Jiang H, Livingston M. The dynamic effects of changes in prices and affordability on alcohol consumption: an impulse response analysis. *Alcohol Alcoholism*. 2015 Nov;50(6):631–8.
20. NHS Health Scotland. Alcohol retail sales dataset 1994 to 2015 - May 2016, MESAS alcohol sales and price update [Internet]. 2016 [cited 2018 April 30]. Available from: [www.healthscotland.scot/media/1203/27345-01-alcohol-retail-sales-dataset-1994-to-2015-may-2016.xls](http://www.healthscotland.scot/media/1203/27345-01-alcohol-retail-sales-dataset-1994-to-2015-may-2016.xls).
21. Easton BH. Taxing harm: modernising alcohol excise duties. Alcohol Advisory Council of New Zealand; 2002. Available from [https://www.hpa.org.nz/sites/default/files/imported/field\\_research\\_publication\\_file/taxingharm\\_0.pdf](https://www.hpa.org.nz/sites/default/files/imported/field_research_publication_file/taxingharm_0.pdf).
22. Sornpaisarn B, Shield KD, Österberg E, Rehm J, editors. Resource tool on alcohol taxation and pricing policies [Internet]. Geneva, Switzerland: World Health Organization; 2017 [cited 2018 April 2018]. Available from: <http://apps.who.int/iris/bitstream/10665/255795/1/9789241512701-eng.pdf> .
23. The Policy Advice Division of the Inland Revenue Department, The New Zealand Treasury. Other base broadening and revenue raising ideas - Background paper for Session 3 of the Victoria University of Wellington Tax Working Group. Victoria University of Wellington;



- 2009 Sep [cited 2018 April 23]. Available from [https://www.victoria.ac.nz/sacl/centres-and-institutes/cagtr/twg/publications/3-other-base-broadening-ird\\_treasury.pdf](https://www.victoria.ac.nz/sacl/centres-and-institutes/cagtr/twg/publications/3-other-base-broadening-ird_treasury.pdf).
24. Cesur R, Kelly IR. Who pays the bar tab? Beer consumption and economic growth in the United States. *Econ Inquiry*. 2014 Jan;52(1):477–94.
  25. New Zealand WineGrowers. Annual Report 2017 [Internet]. Auckland:New Zealand WineGrowers; 2017 [cited 2018 Apr 30]. Available from: <https://www.nzwine.com/en/news-media/statistics-reports/new-zealand-winegrowers-annual-report/>.
  26. Institute of Alcohol Studies. Splitting the bill: alcohol's impact on the economy [Internet]. London, United Kingdom: Institute of Alcohol Studies; 2017 Feb [cited 2018 Apr 29]. Available from: <http://www.ias.org.uk/uploads/pdf/IAS%20reports/rp23022017.pdf>.
  27. Ministry of Health. Alcohol use in New Zealand: key results of the 2007/08 New Zealand alcohol and drug use. [Internet]. Wellington, New Zealand: Ministry of Health; 2009 [cited 2018 Apr 30]. Available from: <http://www.health.govt.nz/publication/alcohol-use-new-zealand-key-results-2007-08-new-zealand-alcohol-and-drug-use-survey> .
  28. Fitzpatrick JP, Fitzpatrick E, Latimer J, Olson HC, Carter M, Oscar J, et al. Prevalence and profile of neurodevelopment and fetal alcohol spectrum disorder (FASD) amongst Australian Aboriginal children living in remote communities. *Res Dev Disabil*. 2017 Jun; 65:114–26.
  29. Streissguth AP, Bookstein FL, Barr HM, Sampson PD, O'Malley K, Young JK. Risk factors for adverse life outcomes in fetal alcohol syndrome and fetal alcohol effects: *J Dev Behav Pediatr*. 2004 Aug; 25(4):228–38.
  30. Sellman D, Connor J. In utero brain damage from alcohol: a preventable tragedy. *N Z Med J*. 2009;122(1306):6–8.
  31. FASD Working Group. Taking action on fetal alcohol spectrum disorder: 2016–2019: an action plan. Wellington: Ministry of Health. [Internet]. Wellington, New Zealand: Ministry of Health; 2016 Aug [cited 2018 Apr 30]. Available from: <https://www.health.govt.nz/publication/taking-action-fetal-alcohol-spectrum-disorder-2016-2019-action-plan>.
  32. Casswell S, You RQ, Huckle T. Alcohol's harm to others: reduced wellbeing and health status for those with heavy drinkers in their lives. *Addiction*. 2011;106(6):1087–94.
  33. Silins E, Fergusson DM, Patton GC, Horwood LJ, Olsson CA, Hutchinson DM, et al. Adolescent substance use and educational attainment: an integrative data analysis comparing cannabis and alcohol from three Australasian cohorts. *Drug Alcohol Depend*. 2015;156:90–6.
  34. Alexander CW, Amy LT, Kelli AK. Effects of alcohol tax and price policies on morbidity and mortality: a systematic review [Internet]. Vol. 100. 2010. 2270–2278 p. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/20864710>
  35. Pompili M, Serafini G, Innamorati M, Dominici G, Ferracuti S, Kotzalidis GD, et al. Suicidal behavior and alcohol abuse. *Int J Environ Res Public Health*. 2010;7(4):1392–431.



36. Cavanagh JT, Carson AJ, Sharpe M, Lawrie SM. Psychological autopsy studies of suicide: a systematic review. *Psychol Med*. 2003;33(03):395–405.
37. Rossiter P. Request for statistics on alcohol-related suicide [online]; 2017 March 27 [cited 23 April 2018].
38. Connor J, Casswell S. Alcohol-related harm to others in New Zealand: evidence of the burden and gaps in knowledge. *N Z Med J Online*. 2012;125(1360):11.
39. Garaycochea JI, Crossan GP, Langevin F, Mulderrig L, Louzada S, Yang F, et al. Alcohol and endogenous aldehydes damage chromosomes and mutate stem cells. *Nature*. 2018 Jan 3;553(7687):171–7.
40. Connor J, Kydd R, Shield K, Rehm J. The burden of disease and injury attributable to alcohol in New Zealanders under 80 years of age: marked disparities by ethnicity and sex. *N Z Med J*. 2015;128(1409):15–28.
41. Carroll P, Witten K, Kearns R, Donovan P. Kids in the City: Children's Use and Experiences of Urban Neighbourhoods in Auckland, New Zealand. *J Urban Des*. 2015 Aug 8;20(4):417–36.
42. Colmar Brunton. Quality of life survey 2016: Topline report. A report prepared on behalf of Auckland Council, Wellington City Council, Christchurch City Council, and Dunedin City Council [Internet]. New Zealand: Colmar Brunton; 2016 Sep [cited 2018 Apr 30]. Available from: [http://www.qualityoflifeproject.govt.nz/pdfs/Quality\\_of\\_Life\\_2016.pdf](http://www.qualityoflifeproject.govt.nz/pdfs/Quality_of_Life_2016.pdf).
43. Sengupta NK, Luyten N, Greaves LM, Osborne D, Robertson A, Armstrong G, et al. Sense of community in New Zealand neighbourhoods: A multi-level model predicting social capital. *N Z J Psychol*. 2013;42(1):36–45.
44. Katikireddi SV, Whitley E, Lewsey J, Gray L, Leyland AH. Socioeconomic status as an effect modifier of alcohol consumption and harm: analysis of linked cohort data. *Lancet Public Health*. 2017;2(6):e276.
45. Mäkelä P, Paljärvi T. Do consequences of a given pattern of drinking vary by socioeconomic status? A mortality and hospitalisation follow-up for alcohol-related causes of the Finnish Drinking Habits Surveys. *J Epidemiol Community Health*. 2008;62(8):728–33.
46. Came H. Institutional racism and the dynamics of privilege in public health [dissertation on the internet] [Doctoral]. [Hamilton, New Zealand]: University of Waikato; 2012 [cited 2018 April 30]. Available from: <https://hdl.handle.net/10289/6397>
47. Thaksaphon T, Hill L, Casswell S. Alcohol taxation in the western pacific region (paper prepared for the world health organization regional Office) [Internet]. Auckland, New Zealand: Centre for Social and Health Outcomes Research and Evaluation, Massey University; 2005 Aug [cited 2018 April 30]. Available from: [http://teaching.massey.ac.nz/massey/fms/Colleges/College%20of%20Humanities%20and%20Social%20Sciences/Shore/reports/Taxation%2013\\_9\\_06.pdf?D6E56924CB5F6920B5CF099E7C013C1E](http://teaching.massey.ac.nz/massey/fms/Colleges/College%20of%20Humanities%20and%20Social%20Sciences/Shore/reports/Taxation%2013_9_06.pdf?D6E56924CB5F6920B5CF099E7C013C1E).





48. Elder RW, Lawrence B, Ferguson A, Naimi TS, Brewer RD, Chattopadhyay SK, et al. The effectiveness of tax policy interventions for reducing excessive Alcohol consumption and related harms. *Am J Prev Med.* 2010 Feb;38(2):217–29.
49. White Jane Lynn Robert, Ong Su-Wuen, Whittington Phil, Clare JSC. The Effectiveness of Alcohol Pricing Policies [Internet]; 2014 [cited 2018 Apr 30]. Available from: <https://www.justice.govt.nz/assets/Documents/Publications/effectiveness-of-alcohol-pricing-policies.pdf>
50. Health Promotion Agency. Low-risk alcohol drinking advice. [Internet]. Wellington, New Zealand: Health Promotion Agency. n.d. [cited 2018 Apr 30]. Available from: <https://www.alcohol.org.nz/help-advice/advice-on-alcohol/low-risk-alcohol-drinking-advice>.
51. Wagenaar AC, Salois MJ, Komro KA. Effects of beverage alcohol price and tax levels on drinking: a meta-analysis of 1003 estimates from 112 studies. *Addiction.* 2009 Feb;104(2):179–90.
52. World Health Organization. Preventing suicide: a global imperative [Internet]. Geneva: Switzerland: World Health Organization; 2014 [cited 2018 Apr 30]. Available from: [http://www.who.int/mental\\_health/suicide-prevention/world\\_report\\_2014/en/](http://www.who.int/mental_health/suicide-prevention/world_report_2014/en/).
53. World Health Organization. Mental Health Action Plan 2013-2020. [Internet]. Geneva: Switzerland: World Health Organization; 2013 [cited 2018 Apr 30]. Available from: [http://www.who.int/mental\\_health/publications/action\\_plan/en/](http://www.who.int/mental_health/publications/action_plan/en/).
54. Markowitz S, Chatterji P, Kaestner R. Estimating the impact of alcohol policies on youth suicides. *J Ment Health Policy Econ.* 2003;6(1):37–46.
55. Anderson P, Chisholm D, Fuhr DC. Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *The lancet.* 2009;373(9682):2234–46.
56. Alcohol Health Alliance. Awareness of drinking guidelines remains low, 2 years after their release [Internet]. AHA; 2018 [cited 2018 Apr 30]. Available from: <http://ahauk.org/awareness-drinking-guidelines-remains-low-2-years-release/>
57. Rout J, Hannan T. Consumer awareness and understanding of alcohol pregnancy warning labels [Internet]. Wellington, New Zealand: Health Promotion Agency; 2016 [cited 2018 Apr 30]. Available from: <https://www.hpa.org.nz/research-library/research-publications/consumer-awareness-and-understanding-of-alcohol-pregnancy-warning-labels>
58. Gluckman PD. Improving the transition: reducing social and psychological morbidity during adolescence [Internet]. Auckland, New Zealand: Office of the Prime Minister’s Science Advisory Committee; 2011 [cited 2018 April 30]. Available from <http://www.pmcsa.org.nz/wp-content/uploads/Improving-the-Transition-report.pdf>.
59. Food Standards UK. Guidance title: labelling of European Union still wines. London: Food Standards UK; 2016.
60. Te Rau Hinengaro: The New Zealand mental health survey. [Internet]. . Wellington, New Zealand: Ministry of Health; 2006 [cited 2018 Apr 30]. Available from:



<https://www.health.govt.nz/publication/te-rau-hinengaro-new-zealand-mental-health-survey>.

61. Alcohol Health Alliance UK. Our policy position on alcohol taxation [Internet]. London: Alcohol Health Alliance UK; 2017 [cited 2018 Apr 30]. Available from: <http://ahauk.org/wp-content/uploads/2017/01/AHA-Budget-2017-submission.pdf>.
62. UMR. Perception towards alcohol and alcohol pricing - telephone omnibus. Wellington, New Zealand: UMR; 2018 Feb.
63. Ministry of Health. Alcohol use 2012/13: New Zealand health survey 2013 [Internet]. Wellington, New Zealand: Ministry of Health; 2015 [cited 2018 April 30]. Available from: <http://www.health.govt.nz/system/files/documents/publications/alcohol-use-2012-13-new-zealand-health-survey-feb15.pdf>
64. Meier PS, Holmes J, Angus C, Ally AK, Meng Y, Brennan A. Estimated effects of different alcohol taxation and price policies on health inequalities: a mathematical modelling study. *PLoS Med*. 2016;13(2):e1001963.
65. Insight Economics. Economic analysis of Auckland council's draft local alcohol policy. [Internet]. Auckland, New Zealand: Insight Economics; 2014 Jul [cited 2018 Apr 30]. Available from: [http://www.hospitalitynz.org.nz/~downloads/Insight Economics Analysis of Auckland draft LAP 15072014.pdf](http://www.hospitalitynz.org.nz/~downloads/Insight_Economics_Analysis_of_Auckland_draft_LAP_15072014.pdf).
66. Labhart F, Ferris J, Winstock A, Kuntsche E. The country-level effects of drinking, heavy drinking and drink prices on pre-drinking: An international comparison of 25 countries: Country-level effects on pre-drinking. *Drug Alcohol Rev*. 2017 Nov;36(6):742–50.
67. Cameron MP, Roskrug MJ, Droste N, Miller PG. Pre-Drinking and the Temporal Gradient of Intoxication in a New Zealand Nightlife Environment. *J Stud Alcohol Drugs*. 2018 Jan;79(1):119–25.
68. Babor T. Alcohol : no ordinary commodity : research and public policy. 2nd ed. Oxford ; New York : Oxford University Press 2010.
69. Casswell S, Huckle T, Wall M, Yeh LC. International alcohol control study: Pricing data and hours of purchase predict heavier drinking. *Alcohol Clin Exp Res*. 2014;38(5):1425–31.
70. Ellickson PL, Collins RL, Hambarsoomians K, McCaffrey DF. Does alcohol advertising promote adolescent drinking? Results from a longitudinal assessment. *Addiction*. 2005;100(2):235–46.
71. Kypri K, Jones C, McElduff P, Barker D. Effects of restricting pub closing times on night-time assaults in an Australian city. *Addiction*. 2011;106(2):303–10.
72. Miller PG, Tindall J, Sonderlund A, Groombridge D, Lecathelinais C, Gillham K, et al. Dealing with alcohol and the night-time economy (DANTE): final report. National Drug and Law Enforcement Research Fund (NDLERF) 2012;



73. Pasch KE, Komro KA, Perry CL, Hearst MO, Farbakhsh K. Outdoor alcohol advertising near schools: what does it advertise and how is it related to intentions and use of alcohol among young adolescents? *J Stud Alcohol Drugs*. 2007;68(4):587–96.
74. Pearce J, Day P, Witten K. Neighbourhood provision of food and alcohol retailing and social deprivation in urban New Zealand. *Urban Policy Res*. 2008;26(2):213–27.
75. Ministerial forum on Alcohol Advertising and Sponsorship. Recommendations on alcohol advertising and sponsorship [Internet]; 2014 [cited 2018 April 30]. Available from: <http://www.health.govt.nz/publication/ministerial-forum-alcohol-advertising>.
76. Lanis R, McClure R, Zirnsak M. Tax aggressiveness of alcohol and bottling companies in Australia. Canberra, Australia: Foundation of Alcohol Research and Education. [Internet]. 2017 [cited 2018 Apr 30]; Available from: <http://fare.org.au/archives/76575>.
77. Nippert M. The Tax Gap - Where do their profits go? How Apple, Facebook and Google move their earnings overseas. Auckland: New Zealand Herald [Internet]. 2016 [cited 2018 Apr 30]; Available from: [https://www.nzherald.co.nz/business/news/article.cfm?c\\_id=3&objectid=11607279](https://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11607279)
78. Health Promotion Agency. What we do - alcohol [Internet]. Wellington, New Zealand: Health Promotion Agency; n.d. [cited 2018 Apr 30]. Available from: <https://www.hpa.org.nz/what-we-do/alcohol>
79. Health Promotion Agency. Annual report (For the year ended 30 June 2017) [Internet]. Wellington: Health Promotion Agency; 2017 [cited 2018 Apr 30]. Available from: <https://www.hpa.org.nz/research-resources/latest-resources/annual-reports>
80. Sport New Zealand. An estimation of the value of alcohol sponsorship in New Zealand Wellington (NZ). Wellington: Sport New Zealand; 2015.
81. Zhao J, Stockwell T. The impacts of minimum alcohol pricing on alcohol attributable morbidity in regions of British Columbia, Canada with low, medium and high mean family income: Minimum alcohol price and alcohol morbidity. *Addiction*. 2017 Nov;112(11):1942–51.